FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Feed the Future Northern Kenya 2015

Zone of Influence Interim Assessment Report

December 2015

USAID

FROM THE AMERICAN PEOPLE

Prepared for the United States Agency for International Development, USAID Contract Number GS-23F-8144H/AID-OAA-M-12-00006, Feed the Future FEEDBACK

Recommended Citation:
Feed the Future FEEDBACK. 2015. Feed the Future Northern Kenya 2015 Zone of Influence Interim Assessment Report. Rockville, MD: Westat.

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List of Acronyms

AG	Accelerated Growth
5DE	Five Domains of Empowerment
BFS	Bureau for Food Security
BMI	Body Mass Index
CI	Confidence Interval
CPI	Consumer Price Index
DEFF	Design Effect
DHS	Demographic and Health Survey
EA	Enumeration Area
FANTA	Food and Nutrition Technical Assistance
FDR	False Discovery Rates
FTF FEEDBACK	Feed the Future FEEDBACK
GDP	Gross Domestic Product
GPI	Gender Parity Index
HA	Humanitarian Assistance
HHS	Household Hunger Scale
IE	Impact Evaluation
IFPRI	International Food Policy Research Institute
IR	Improving Resilience
KIHBS	Kenya Integrated Household Budget Survey
KNBS	Kenya National Bureau of Statistics
Kshs	Kenyan Shillings
LSMS	Living Standards Measurement Survey
MAD	Minimum Acceptable Diet
MDD-W	Women's Minimum Dietary Diversity
MDG	Millennium Development Goals
NRVCC	Nutrient-Rich Value Chain Commodity
PPP	Purchasing Power Parity
PPS	Probability Proportional to Size
QC	Quality Control
REGAL	Resilience and Economic Growth in Arid Lands

SD	Standard Deviation
UN	United Nations
UNDG	United Nations Development Group
USAID	United States Agency for International Development
USD	United States Dollar
USG	United States Government
WDDS	Women's Dietary Diversity Score
WEAI	Women's Empowerment in Agriculture Index
WHO	World Health Organization
ZOI	Zone of Influence

Executive Summary

Background

Feed the Future, led by the U.S. Agency for International Development (USAID), seeks to reduce poverty and undernutrition in 19 developing countries through its focus on accelerating growth of the agriculture sector, addressing root causes of undernutrition, and reducing gender inequality.

Feed the Future monitors its performance in part by periodic assessments of a number of standardized indicators. These indicators reflect data collected through population-based surveys in the geographic areas targeted by Feed the Future interventions, known as the Feed the Future Zones of Influence (ZOI). This document reports the results of the first interim assessment of Feed the Future's population-based indicators for the ZOI in northern Kenya.

The northern Kenya ZOI was added to Feed the Future in 2011. Initially, USAID identified the ZOI as a 22-county region in western and southern Kenya. However, following the severe drought of 2011, five counties in northern Kenya were added to Feed the Future (Isiolo, Wajir, Garissa, Turkana, and Marsabit), creating a northern Kenya ZOI. Feed the Future FEEDBACK (FTF FEEDBACK) is responsible for population-based surveys as well as an impact evaluation (IE) of Resilience and Economic Growth in Arid Lands (REGAL) programs in the northern Kenya ZOI.

FTF FEEDBACK designed the survey instrument and sampling methodology to provide data for both the IE and this interim assessment report. Kimetrica, Westat's subcontractor in northern Kenya, interviewed eligible respondents in a total of 1,837 households in nine counties (Garissa, Isiolo, Marsabit, Turkana, Wajir, Baringo, Mandera, Samburu, and Tana River). Data collection took place from 14 May to 13 June 2015. The sample is large enough to measure differences among intensity levels of REGAL and humanitarian assistance (HA) programming for the IE, as well as provide point estimates for Feed the Future indicators at the ZOI level. This interim assessment uses data from 1,193 households in the five counties of the ZOI (Garissa, Isiolo, Marsabit, Turkana, and Wajir). The analysis and results for the REGAL IE will be described in a separate report, to include the data from the resilience module from the interim assessment. The interim assessment in northern Kenya is the focus of this report.

This first interim assessment will provide the U.S. Government (USG) interagency partners, USAID Bureau for Food Security (BFS), USAID Missions, host country governments, and development partners with information about short-term progress of the ZOI indicators. The assessment is designed for use as a monitoring tool, and as such provides point estimates of the indicators with an acceptable level of statistical precision. However, Feed the Future ZOI

sample calculations are not designed to support conclusions of causality or program attribution, nor is the interim assessment designed to measure change from the baseline.

Interim Assessment Indicators

Thirteen Feed the Future indicators are included in this assessment: (1) Daily per capita expenditures (as a proxy for income) in USG-assisted areas; (2) Prevalence of Poverty; (3) Depth of Poverty; (4) Prevalence of households with moderate or severe hunger; (5) Women's Dietary Diversity; (6) Prevalence of children 6-23 months receiving a minimum acceptable diet (MAD); (7) Prevalence of exclusive breastfeeding among children under 6 months of age; (8) Prevalence of women of reproductive age who consume targeted nutrient-rich value chain commodities (NRVCC); (9) Prevalence of children 6-23 months who consume targeted NRVCC; (10) Prevalence of underweight women; (11) Prevalence of stunted children under 5 years of age; (12) Prevalence of wasted children under 5 years of age; and (13) Prevalence of underweight children under 5 years of age.

The first interim assessment does not report on the Feed the Future indicator Women's Empowerment in Agriculture Index (WEAI) score, but does report on nine of the ten indicators that comprise the WEAI. These are presented in the WEAI Section of this report (Section 5). Because adjustments were being made to the WEAI tool at the time of the first interim ZOI survey, a streamlined version of the WEAI module was used that only collected data for nine of the 10 indicators. The full WEAI will be collected during the next interim survey in 2017.

The interim assessment also does not report on the two Feed the Future anemia indicators because changes plausibly associated with Feed the Future's efforts are unlikely given coverage and focus of nutrition programs at this time, and because they require more intrusive data collection, increase the cost of the survey, and increase the time and complexity of data collection and obtaining in-country institutional review board approval.

Interim Assessment Data Sources

Data for the Feed the Future ZOI indicators presented in this assessment are drawn from one **Source:** The FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015 (data collection from May 14 to June 13, 2015).

The northern Kenya ZOI Interim Survey was conducted by FTF FEEDBACK in conjunction with its data collection partner, Kimetrica.

Summary of Key Findings

The Feed the Future ZOI indicator estimates table shown presents baseline and interim indicator values for the northern Kenya ZOI. In this table, 2013 baseline estimates are shown

for the three counties of Marsabit, Isiolo, and Turkana. (The remaining two counties in the northern Kenya ZOI – Garissa and Wajir – were omitted during baseline data collection due to security issues in those areas.) The middle set of columns in the table, shown on pages xiv-xvi shows indicators from the 2015 interim survey for a comparable subsample as the baseline indicators (the three counties of Marsabit, Isiolo, and Turkana). Finally, the table also shows interim indicator values for the entire northern Kenya ZOI—the five counties of Garissa, Isiolo, Marsabit, Turkana, and Wajir. The five-county sample is that used for the ZOI interim indicator analysis presented throughout this report.[1]

Household Economic Status

The northern Kenya ZOI interim assessment shows that average daily per capita expenditures is $2.01 (2010 United States dollars [USD]). The prevalence of poverty (defined as the percentage of people living below $1.25 per day) is 47.0 percent. The depth of poverty (the mean percent shortfall relative to the $1.25 per day poverty line) is 19.4 percent. In other words, the average gap between consumption of the population and the poverty line is $0.24.

Women's Empowerment in Agriculture Index Indicators

The interim assessments present uncensored headcounts for 9 of the 10 WEAI indicators. Uncensored headcounts are the percent of women (regardless of their overall empowerment status) who achieve adequacy on each of the WEAI indicators.[2] The Feed the Future ZOI indicator estimates table shows that the WEAI uncensored headcounts with the highest levels of achievement include workload (81.7 percent), control over the use of income (76.6 percent), and satisfaction with leisure time (69.2 percent). The WEAI uncensored headcounts with the lowest levels of achievement among primary adult female decisionmakers include access to and decisions on credit (1.8 percent) and group membership (27.0 percent).

Hunger and Dietary Intake

The Feed the Future indicator estimates table shows that the prevalence of households in the northern Kenya ZOI with moderate or severe hunger is 38.4 percent; more than one in every three households experience hunger. Women's dietary diversity, or the mean number of food groups (of nine possible groups) consumed by women of reproductive age (15-49), is 3.37 food groups. The prevalence of exclusive breastfeeding among children under 6 months is

[1] The northern Kenya ZOI interim survey also included four additional control counties: Baringo, Mandera, Samburu, and Tana River. These counties are not within the ZOI, and their data are not included in the analyses in this interim assessment report. These counties are included in a separate FTF FEEDBACK IE report for Kenya REGAL programs. In addition, the 2015 northern Kenya ZOI interim survey included a module on households' livelihoods and resilience to economic shocks. The resilience analysis is also presented separately from this ZOI interim assessment report, and is included in the REGAL IE report.

[2] Please refer to Appendix 2.3 for the specific criteria for achieving adequacy in each WEAI indicator.

43.4 percent; fewer than half of infants in the northern Kenya ZOI are exclusively breastfed. Among children 6-23 months, 3.6 percent receive a MAD.

The NRVCC in northern Kenya are the milk and meat from four animals: Cattle, camels, sheep, and goats. The eight NRVCC foods for women age 15-49 and children age 6-23 months are beef, camel meat, mutton (sheep meat), goat meat, cow milk, camel milk, sheep milk, and goat milk. Among women of reproductive age in the five counties of the ZOI, over three-quarters (77.4 percent) consumed at least one of the eight NRVCC foods in the prior 24 hours, with goat milk most commonly consumed (38.2 percent of women), and mutton least commonly consumed (2.7 percent). Among children age 6-23 months, nearly two-thirds (65.2 percent) consumed at least one of the eight NRVCC foods in the prior 24 hours. For children, cow milk is the most prevalent NRVCC (consumed by 36.1 percent of children), and sheep milk is the least prevalent (consumed by only 1.0 percent of children).

Nutritional Status of Women and Children

The prevalence of underweight women (defined as a Body Mass Index [BMI] below 18.5) is 25.9 percent. About one in four non-pregnant women of reproductive age in the northern Kenya ZOI is underweight. Among children less than 5 years, 23.3 percent are stunted; these children have low height-for-age, indicating long term, chronic undernutrition. About 16.6 percent of children – one in every six children in the ZOI – are wasted, or have low weight-for-height. Wasting is an indicator of acute malnutrition. Finally, 21.1 percent of children are underweight, or have low weight-for-age. Underweight is an indicator of either acute or chronic undernutrition in children.

Improved Drinking Water

In addition to the standard Feed the Future indicators shown in the table on pages xiv-xvi, the USAID/Kenya Mission also requested the prevalence of households with an improved source of drinking water. This indicator is shown for the three-county baseline, the three-county interim (for comparison with baseline), and the five-county interim subsamples. In the five counties of the northern Kenya ZOI, 66.2 percent of households have access to an improved source of drinking water.[3]

Measuring Change Over Time

Although the northern Kenya ZOI interim survey was not designed to measure change from baseline indicator values, for a few indicators, non-overlapping confidence intervals (CIs) between the 2013 three-county baseline subsample and the comparable 2015 three-county

[3] Improved drinking water, as well as other household dwelling characteristics, is presented in Section 3 of the interim report.

interim subsample shown in the table on pages xiv-xvi point to a statistically significant change over time.[4] When CIs do overlap, however, which is the case for most indicators, conclusions cannot be made regarding statistically significant change from baseline to interim.[5]

Significant differences were found over time between the baseline and interim three-county estimates for the five WEAI indicators of ownership of assets; purchase, sale or transfer of assets; access to and decisions on credit; workload; and satisfaction with leisure time. For four of the five WEAI indicators showing significant change over time, uncensored headcounts declined between baseline and interim. The exception is the women's workload uncensored headcount, which increased between baseline and interim from 52.0 percent to 71.2 percent.

In addition to some of the WEAI uncensored headcounts, the women's dietary diversity indicator showed significant change between the three-county baseline estimate and the three-county interim estimate, increasing from 2.30 to 2.95 food groups (of nine possible groups). Significant change over time is also shown between the three-county baseline and three-county interim estimates for the prevalence of underweight children under 5 years of age. This indicator increased from 19.1 percent to 28.5 percent for the three-county subsamples shown in the table on pages xiv-xvi.

The Northern Kenya ZOI Interim Assessment Report is a product of the FTF FEEDBACK project, which is responsible for specific elements of performance monitoring and impact evaluation supporting the Feed the Future initiative. FTF FEEDBACK is implemented by Westat in partnership with Technical Assistance for Non-Governmental Organizations (TANGO) International and the University of North Carolina's Carolina Population Center.

Baseline and interim (both the three-county subsample as well as the full five-county ZOI sample) estimates of indicator values in the ZOI are shown in the Feed the Future Zone of Influence Indicator Estimates table on the following page. Notwithstanding the description above regarding the specific indicators that exhibit statistically significant change over time, this first interim assessment was designed to present point estimates for the Feed the Future indicators. The second interim assessment for the northern Kenya ZOI, planned for 2017, will explicitly explore change in indicator estimates over time.

[4] Three-county baseline and three-county interim estimates are only shown in the Executive Summary table in the northern Kenya interim assessment report; the remainder of the interim report presents estimates using data from the five counties in the northern Kenya ZOI.

[5] CIs demonstrate the reliability of estimated values. Non-overlapping CIs indicate significant differences between the two estimates. However, if CIs do overlap, the reader cannot conclude whether there is or is not a statistically significant difference between baseline and interim estimates.

Feed the Future Zone of Influence indicator estimates: Northern Kenya

Feed the Future indicator	3 County Baseline (2013)[1]			3 County Interim (2015)[2]			5 County Interim (2015)[3]		
	Estimate	95% CI[4,5]	n	Estimate	95% CI	n	Estimate	95% CI	n
Daily per capita expenditures (as a proxy for income) in USG-assisted areas (2010 USD)									
All households	1.73	1.47 – 1.99	1,133	1.69	1.47 – 1.90	779	2.01	1.85 – 2.17	1,160
Male and female adults	1.58	1.34 – 1.82	820	1.58	1.34 – 1.83	547	1.89	1.74 – 2.03	834
Female adult(s) only	1.69	1.26 – 2.12	232	1.79	1.43 – 2.15	168	2.01	1.71 – 2.32	228
Male adult(s) only*	6.21	4.31 – 8.10	73	3.31	2.14 – 4.48	64	4.78	2.29 – 7.27	98
Prevalence of Poverty: Percent of people living on less than $1.25/day (2005 PPP)									
All households	61.9	55.7 – 68.1	1,133	58.5	51.3 – 65.3	779	47.0	42.5 – 51.6	1,160
Male and female adults	62.5	55.9 – 69.1	820	61.0	52.9 – 68.6	547	47.9	42.7 – 53.1	834
Female adult(s) only	65.2	55.8 – 74.7	232	53.2	41.6 – 64.4	168	47.4	37.8 – 57.3	228
Male adult(s) only	30.1	14.8 – 45.3	73	33.1	15.0 – 58.1	64	27.3	15.3 – 43.9	98
Depth of Poverty: Mean percent shortfall relative to the $1.25/day (2005 PPP) poverty line									
All households	30.5	25.3 – 35.7	1,133	26.8	21.4 – 32.2	779	19.4	16.3 – 22.4	1,160
Male and female adults	31.1	25.5 – 36.6	820	28.2	22.6 – 33.9	547	20.0	16.7 – 23.2	834
Female adult(s) only	31.3	24.0 – 38.5	232	23.1	15.7 – 30.6	168	18.9	13.4 – 24.5	228
Male adult(s) only	9.4	2.5 – 16.4	73	16.5	1.4 – 31.7	64	9.4	1.9 – 16.8	98
Percent of women achieving adequacy on Women's Empowerment in Agriculture Index Indicators[6,7]									
Input in productive decisions	56.3	49.8 – 62.5	646	51.8	43.0 – 60.5	487	51.0	44.8 – 57.3	717
Ownership of assets	67.7	61.6 – 73.3	646	50.7	42.8 – 58.6	487	52.9	47.9 – 57.8	717
Purchase, sale or transfer of assets	56.6	51.6 – 61.5	646	38.0	31.8 – 44.8	487	39.5	34.4 – 44.8	717
Access to and decisions on credit	14.1	10.5 – 18.6	646	2.7	1.3 – 5.3	487	1.8	1.0 – 3.3	717
Control over use of income	74.0	69.2 – 78.2	646	77.5	70.2 – 83.4	487	76.6	70.7 – 81.6	717
Group member	40.5	34.5 – 46.8	646	38.8	31.9 – 46.2	487	27.0	22.3 – 32.3	717
Speaking in public	50.1	44.9 – 55.3	646	44.0	36.0 – 52.3	487	41.2	35.4 – 47.1	717
Workload	52.0	46.4 – 57.7	646	71.2	66.4 – 75.7	487	81.7	77.4 – 85.3	717
Leisure	80.2	74.6 – 84.7	646	64.3	56.3 – 71.6	487	69.2	63.6 – 74.2	717
Autonomy in production	83.8	79.8 – 87.1	646	n/a	n/a	n/a	n/a	n/a	n/a
Prevalence of households with moderate or severe hunger									
All households	60.3	52.8 – 67.8	1,013	54.5	48.7 – 60.2	794	38.4	33.6 – 43.4	1,177
Male and female adults	60.1	53.0 – 67.1	738	49.2	42.9 – 55.5	553	35.2	30.5 – 40.2	844
Female adult(s) only	68.2	57.5 – 78.9	205	72.1	63.9 – 79.0	174	53.5	44.7 – 62.0	232
Male adult(s) only	39.9	21.3 – 58.5	63	39.9	24.3 – 58.0	67	27.2	17.7 – 39.3	101
Women's Dietary Diversity: Mean number of food groups consumed by women of reproductive age									
All women age 15-49	2.30	2.08 – 2.51	845	2.95	2.69 – 3.22	639	3.37	3.17 – 3.56	951
Prevalence of exclusive breastfeeding among children under 6 months of age									
All children	57.3	41.4 – 73.2	64	49.2	33.5 – 65.0	59	43.4	30.7 – 57.0	81
Male children	61.8	41.7 – 81.9	33	^	^	26	45.2	29.1 – 62.3	32
Female children	51.7	29.3 – 74.1	31	54.1	33.7 – 73.2	33	42.1	26.5 – 59.4	49
Prevalence of children 6-23 months receiving a minimum acceptable diet									
All children	2.5	0.0 – 5.5	214	4.2	1.7 – 10.1	161	3.6	1.8 – 7.3	235
Male children	0.5	0.0 – 1.6	100	7.1	2.3 – 19.9	81	4.8	1.8 – 12.3	119
Female children	4.2	0.0 – 9.5	114	1.5	0.5 – 4.6	80	2.4	0.7 – 7.9	116

Feed the Future Zone of Influence indicator estimates: Northern Kenya (continued)

Feed the Future indicator	3 County Baseline (2013)[1]			3 County Interim (2015)[2]			5 County Interim (2015)[3]		
	Estimate	95% CI[4,5]	n	Estimate	95% CI	n	Estimate	95% CI	n
Prevalence of women of reproductive age who consume targeted nutrient-rich value chain commodities[8]									
Beef: All women age 15-49	n/a	n/a	n/a	4.5	2.7 – 7.5	639	4.1	2.5 – 6.8	951
Camel meat: All women age 15-49	n/a	n/a	n/a	0.7	0.4 – 1.5	639	8.0	5.7 – 11.1	951
Mutton: All women age 15-49	n/a	n/a	n/a	3.1	1.8 – 5.3	639	2.7	1.7 – 4.3	951
Goat meat: All women age 15-49	n/a	n/a	n/a	13.8	10.8 – 17.5	639	24.1	19.6 – 29.1	951
Cow milk: All women age 15-49	n/a	n/a	n/a	36.7	27.8 – 46.5	639	36.4	30.5 – 42.9	951
Camel milk: All women age 15-49	n/a	n/a	n/a	10.1	6.2 – 16.0	639	19.2	15.8 – 23.1	951
Sheep milk: All women age 15-49	n/a	n/a	n/a	1.8	0.8 – 4.1	639	3.1	2.0 – 4.9	951
Goat milk: All women age 15-49	n/a	n/a	n/a	21.4	15.8 – 28.4	639	38.2	32.7 – 44.0	951
Prevalence of women of reproductive age who consume at least one targeted nutrient-rich value chain commodity[8]									
All women age 15-49	n/a	n/a	n/a	65.5	56.4 – 73.6	639	77.4	71.5 – 82.3	951
Prevalence of children 6-23 months who consume targeted nutrient-rich value chain commodities[8]									
Beef: All children	n/a	n/a	n/a	4.7	1.0 – 19.0	161	4.0	1.3 – 11.5	235
Camel meat: All children	n/a	n/a	n/a	0.1	0.0 – 0.8	161	1.4	0.3 – 6.2	235
Mutton: All children	n/a	n/a	n/a	2.0	0.4 – 8.4	161	1.2	0.3 – 5.0	235
Goat meat: All children	n/a	n/a	n/a	5.9	1.6 – 19.2	161	7.1	3.3 – 14.6	235
Cow milk: All children	n/a	n/a	n/a	27.5	19.2 – 37.9	161	36.1	27.7 – 45.4	235
Camel milk: All children	n/a	n/a	n/a	9.1	5.2 – 15.3	161	15.3	11.0 – 20.9	235
Sheep milk: All children	n/a	n/a	n/a	0.1	0.0 – 1.0	161	1.0	0.3 – 3.7	235
Goat milk: All children	n/a	n/a	n/a	24.9	16.0 – 36.5	161	30.2	23.5 – 38.0	235
Prevalence of children 6-23 months who consume at least one targeted nutrient-rich value chain commodity[8]									
All children	n/a	n/a	n/a	57.2	46.3 – 67.5	161	65.2	56.7 – 72.8	235
Male children	n/a	n/a	n/a	64.1	52.7 – 74.0	81	70.7	61.7 – 78.3	119
Female children	n/a	n/a	n/a	50.9	37.0 – 64.6	80	59.6	47.3 – 70.8	116
Prevalence of underweight women									
All non-pregnant women age 15-49	35.5	30.8 – 40.2	759	32.8	27.1 – 39.0	540	25.9	22.1 – 30.1	793
Prevalence of stunted children under 5 years of age									
All children	27.6	23.6 – 31.6	792	26.3	21.8 – 31.3	555	23.3	20.2 – 26.8	822
Male children	30.2	24.5 – 35.9	386	29.0	22.7 – 36.3	270	25.0	20.2 – 30.6	395
Female children	25.1	19.8 – 30.5	406	23.3	17.9 – 29.7	285	21.6	17.6 – 26.2	427

Feed the Future Zone of Influence indicator estimates: Northern Kenya (continued)

Feed the Future indicator	3 County Baseline (2013)[1]			3 County Interim (2015)[2]			5 County Interim (2015)[3]		
	Estimate	95% CI[4,5]	n	Estimate	95% CI	n	Estimate	95% CI	n
Prevalence of wasted children under 5 years of age									
All children	12.8	10.0 – 15.5	792	18.6	14.0 – 24.3	555	16.6	13.1 – 20.7	822
Male children	13.8	10.0 – 17.6	386	18.8	11.6 – 29.0	270	16.1	11.1 – 22.7	395
Female children	11.8	8.2 – 15.4	406	18.4	11.4 – 28.3	285	17.1	12.1 – 23.5	427
Prevalence of underweight children under 5 years of age									
All children	19.1	15.4 – 22.8	792	28.5	23.3 – 34.3	555	21.1	17.7 – 25.0	822
Male children	21.0	15.8 – 26.2	386	29.5	23.5 – 36.4	270	21.2	16.7 – 26.6	395
Female children	17.4	12.8 – 21.9	406	27.3	18.3 – 38.7	285	21.0	15.8 – 27.4	427
Prevalence of households with an improved source of drinking water[9]									
All households	52.9	43.4 – 62.3	1,144	68.6	57.8 – 77.7	807	66.2	57.7 – 73.7	1,193
Male and female adults	51.0	41.6 – 60.3	827	64.4	53.3 – 74.2	563	65.3	57.0 – 72.8	854
Female adult(s) only	54.9	42.5 – 67.2	234	72.3	59.2 – 82.4	176	63.7	51.3 – 74.6	237
Male adult(s) only	61.5	45.3 – 77.8	75	85.8	71.9 – 93.4	68	77.9	64.2 – 87.3	102

n/a – Not available.

[1] The baseline three-county ZOI includes Marsabit, Isiolo, and Turkana counties. (At baseline, data collection did not take place in Garissa and Wajir counties due to security concerns.)

[2] For comparison with the three-county baseline indicator estimates, the three-county interim ZOI trio of columns contains the three-county subset of the ZOI interim survey data. Only interim data from Marsabit, Isiolo, and Turkana counties are included in these estimates.

[3] The five-county ZOI is the complete set of counties comprising the northern Kenya ZOI. It includes Garissa, Isiolo, Marsabit, Turkana, and Wajir counties. Note that the 2015 ZOI interim survey included four additional control counties (Baringo, Mandera, Samburu, and Tana River). These counties are not included in the estimates presented in this table, nor elsewhere in this interim assessment report, because these counties are not part of the ZOI. These counties will serve as control counties for an evaluation of impact of programs in the northern Kenya ZOI.

[4] CIs demonstrate the reliability of estimated values. While interim surveys were not designed to capture change over time, non-overlapping CIs do indicate significant differences between the two estimates. However, if CIs do overlap, the reader cannot conclude whether there is or is not a significant difference between baseline and interim estimates unless a statistical test of differences is conducted. For the following indicators, it cannot be concluded that there are significant differences over time between the three-county baseline and three-county interim estimates: the four WEAI indicators of input in productive decisions, control over the use of income, group member, and speaking in public; the prevalence of households with moderate or severe hunger; the prevalence of exclusive breastfeeding among children under 6 months of age; the prevalence of children 6-23 months receiving a minimum acceptable diet; the prevalence of underweight women; the prevalence of stunted children under 5 years of age; and the prevalence of wasted children under 5 years of age. (Note that the Mission-requested non-standard indicator of the prevalence of households with an improved source of drinking water also has overlapping CIs between baseline and interim.)

[5] Significance tests were run to compare the three-county baseline and three-county interim estimates for daily per capita expenditures, prevalence of poverty and depth of poverty. The level of significance is noted to the right of each indicator: * p<.05, ** p<.01, *** p<.001.

[6] The full WEAI score cannot be calculated because interim data were collected from women only and the autonomy indicator was dropped. The second interim survey (2017) will collect the full set of data from women and men and will report on the full WEAI.

[7] The baseline report presented censored headcounts of inadequate achievement for these empowerment indicators, while this interim report presents uncensored headcounts of adequate achievement for both baseline and interim reporting periods. Censored headcounts present the percent of women who are disempowered and achieve adequacy (or inadequacy) in each indicator, while uncensored headcounts present the percent of women who achieve adequacy (or inadequacy) in each indicator regardless of empowerment status.

[8] The indicators for women's and children's consumption of targeted NRVCC were not collected during the baseline round of data collection.

[9] Prevalence of improved drinking water is not a standard Feed the Future indicator, but was requested by the USAID/Kenya Mission.

Source(s): Baseline: FTF FEEDBACK ZOI Baseline Survey, Northern Kenya 2013; Interim: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

1. Background

This section provides background information on Feed the Future in northern Kenya, including a description of the program and the zone of influence (ZOI), demographic information on the ZOI population, and a summary of the agriculture situation in the ZOI. This section also describes how the survey by Feed the Future FEEDBACK (FTF FEEDBACK) was designed to provide data for this interim assessment report and the impact evaluation (IE).

1.1 Feed the Future Overview

According to the United States Agency for International Development (USAID),[6] the 2011 drought affected an estimated 3.8 million Kenyans, at which time high numbers and percentages of households were in need of food assistance. At that time, the region was still recovering from the effects of the 2008 drought. The combined impact led to alarming spikes in acute malnutrition, as well as widespread and rapid deterioration of food security. Households' attempts to recover from the multiple droughts provided stark evidence of the extent to which coping capacities of pastoral and agro-pastoral communities have been eroded. Recurring drought is only one of several factors contributing to increasing vulnerability in the ZOI; other factors include population growth, natural resource degradation, land fragmentation, human and animal disease, and tribal conflict.

The Feed the Future goals, objectives, and strategies in northern Kenya focus on pastoralists, and the goals are consistent with priorities identified in Kenya's Vision 2030 Development Strategy for Northern Kenya and Other Arid Lands, as well as the Country Action Plan "Ending Drought Emergencies in Kenya." These goals are to:

- Develop resilience programming in the context of climate change, including development of community-based disaster risk reduction and natural resource management, with a focus on water and rangelands; improving linkages between "bush" and primary livestock markets and services; strengthening and diversifying livelihoods, both within pastoral livestock systems and for those leaving pastoralism; and increasing focus on nutritional impacts of water, livestock, and livelihood programming;
- Develop livestock value chains by facilitating improvements in the livestock market system; strengthening market access and aggregation; improving access to service markets, including finance, animal health and breeding services; and improving relationships among value chain actors that yield enhanced benefits to actors all along the chain, especially pastoralists; and
- Build institutional capacity and strengthen local institutions.[7]

[6] USAID. (2011).
[7] Ibid.

These goals guide USAID Feed the Future's Resilience and Economic Growth in Arid Lands (REGAL) project. The project aims to help over 500,000 vulnerable northern Kenyans escape poverty and hunger. REGAL has two programs: REGAL Improving Resilience (REGAL-IR) is being implemented in all five counties of the ZOI (Marsabit, Garissa, Isiolo, Wajir, and Turkana). REGAL Accelerated Growth (REGAL-AG) is being implemented in Isiolo and Marsabit counties.

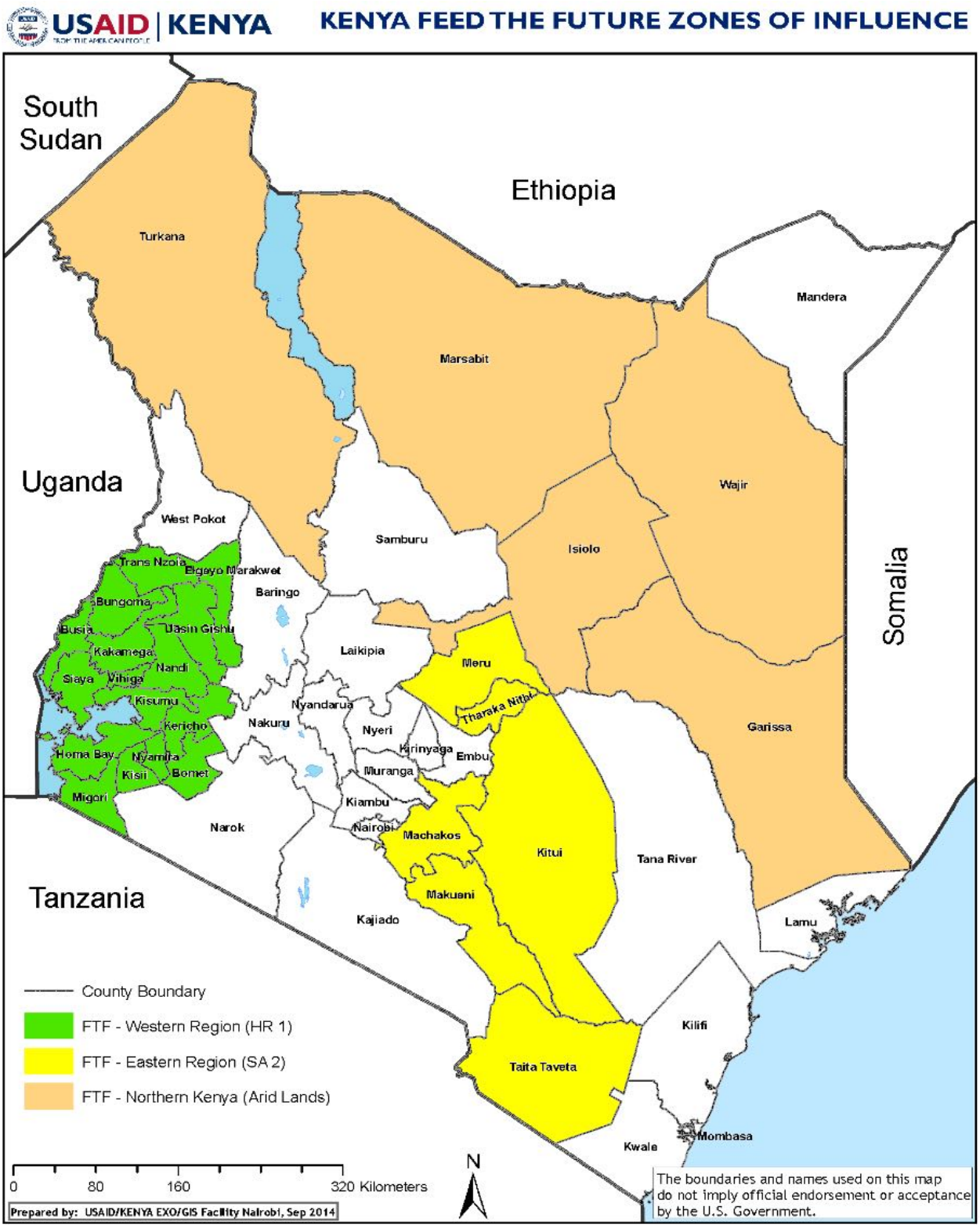
1.2 Feed the Future ZOI Profile

The northern Kenya ZOI was added to Feed the Future in 2011. Initially, USAID identified the ZOI as a 16-county region in western and southern Kenya. However, following the severe drought of 2011, five counties in northern Kenya were added to Feed the Future, creating a northern Kenya ZOI. FTF FEEDBACK is responsible for population-based surveys as well as an IE of Feed the Future REGAL programs in the northern Kenya ZOI.

The northern Kenya ZOI is comprised of five counties: Marsabit, Garissa, Isiolo, Wajir, and Turkana, as shown in **Figure 1.1.** Of these, only three counties (Marsabit, Isiolo, and Turkana) were included in the baseline survey. Garissa and Wajir were inaccessible during the baseline, because of security issues. Feed the Future REGAL-IR programming covers all five counties of the ZOI, while REGAL-AG covers Marsabit and Isiolo. Differences in the values of indicators will be compared by the intensity of the program (REGAL-IR only versus REGAL-IR plus REGAL-AG) in the REGAL IE report.

A map of the Feed the Future ZOI in northern Kenya is provided in Figure 1.1.

Figure 1.1. Map of Northern Kenya: Feed the Future ZOI



1.2.1 Rationale for ZOI Selection

In 2010, Feed the Future used three criteria to identify the ZOI: (1) high numbers of poor households with severely malnourished children; (2) high volumes of staple food production; and (3) ethnically diverse populations. Counties were grouped into agricultural zones, and ranked according to the criteria. Two zones, encompassing 22 counties, met all three criteria. Northern counties were excluded from the first round selection, because they did not meet the ethnic diversity criterion. The northern ZOI was added in 2011 because of urgent and widespread need for humanitarian assistance (HA). In 2011, the proportion of the population requiring urgent HA ranged from 33 percent in Garissa to 77 percent in Marsabit.[8] USAID summarizes the current situation in the ZOI as the product of decades of underinvestment, leaving residents highly vulnerable to the challenges of climate change, food insecurity, and conflict.

1.2.2 Demography of the ZOI

Tables 1.1 and 1.2 present individual and household population estimates, respectively, for the ZOI for 2015. Estimates of the total population as well as sub-populations of the ZOI are presented. The sub-population categories correspond to the various sub-populations for the Feed the Future indicators and disaggregates (e.g., children age 6-23 months, number of households). The ZOI estimates for the total population of individuals as well as households are also disaggregated by gendered household type.[9]

The 2015 population estimates are based on the population counts taken during the 2009 Kenya Population and Housing Census conducted by the Kenya National Bureau of Statistics (KNBS).[10] The 2009 county populations were projected to 2015 by using the reported 1999-2009 intercensal provincial growth rates.[11] The number of individuals and households in the different subgroups is estimated using the FTF FEEDBACK ZOI Interim Survey, northern Kenya 2015. Specifically, the percentages of individuals or households in certain groups were estimated and then applied to the total projected population of the ZOI. Child survival curves were generated with data from the 2008-2009 Kenya Demographic and Health Survey (DHS) for children younger than 59 months. These survival curves were used to create estimates of children 0-5 months, 6-23 months, and 6-59 months.

The northern Kenya ZOI consists of approximately 266,000 square kilometers (about the size of Colorado). The ZOI is sparsely populated, with an average population density of 10 people

[8] Ibid.
[9] See Section 2.2.1 Standard Disaggregates for the definition of gendered household type.
[10] KNBS. (2010b). p. 23.
[11] KNBS. (2010a). p. 22.

per square kilometer in 2009.[12] This is compared to a Kenyan national average of 66 people per square kilometer, and population densities over 4,000 per square kilometer in major urban centers. There are an estimated 3.7 million individuals living within the ZOI.

Table 1.1. Population of individuals, by category in the ZOI, northern Kenya 2015

Category of individuals	Estimated population
Total population	3,730,258
Total population, by sub-population	
Women of reproductive age (15-49 years)	700,949
Children 0-59 months	636,056
Children 0-5 months	64,724
Children 6-23 months	191,506
Children 6-59 months	571,332
Youth 15-29 years	838,768
Total population, by area type	
Urban	1,104,168
Rural	2,626,090
Total population, by gendered household type	
Male and female adult(s)	2,959,605
Female adult(s) only	625,503
Male adult(s) only	145,150
Child(ren) only (no adults)	0
Women of reproductive age, by pregnancy status	
Pregnant	103,445
Non-pregnant	597,504
Children 0-59 months, by child sex	
Male	314,331
Female	321,725
Children 0-5 months, by child sex	
Male	32,110
Female	32,614
Children 6-23 months, by child sex	
Male	94,760
Female	96,746
Children 6-59 months, by child sex	
Male	282,221
Female	289,111
Youth 15-29 years, by sex	
Male	417,395
Female	421,373

Source: Population figures and intercensal growth rates recorded during the 2009 Kenya Census (KNBS 2010) were used to project the population to 2015. The projected population was then disaggregated into the subgroups reported here using the population characteristics recorded in the FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015 and the 2008-2009 Kenya Demographic and Health Survey.

[12] KNBS. (2010b). p. 23.

Table 1.2. Number of households, by category, in the ZOI, northern Kenya 2015

Category of households	Estimated population
Total number of households in ZOI	569,758
Number of households, by gendered household type	
Male and female adult(s)	389,061
Female adult(s) only	125,854
Male adult(s) only	54,843
Child(ren) only, (no adults)	0

Source: Population figures and intercensal growth rates recorded during the 2009 Kenya Census (KNBS 2010) were used to project the population to 2015. The projected population was then disaggregated into the subgroups reported here using the population characteristics recorded in the FTF FEEDBACK ZOI Interim Survey, northern Kenya 2015 and the 2008-2009 Kenya Demographic and Health Survey.

1.2.3 Livestock in the ZOI

Raising livestock is the main livelihood in the ZOI and is important for the overall economy of Kenya. It constitutes an estimated 45 percent of gross domestic product (GDP) from agriculture, Kenya's largest economic sector.[13] The ZOI and surrounding counties provide approximately 80-90 percent of Kenya's red meat,[14] and much of Kenya's meat for export. Besides meat, Kenya exports live animals, milk, animal hides, and skins. Kenya's most recent account of livestock populations was in 2009. Based on those data, the ZOI contained 63 percent of Kenya's camel population, approximately 43 percent of sheep and goats, and 21 percent of cattle.[15] Livestock provides households in the ZOI with meat and dairy products, as well as cash to purchase other foods. Accordingly, REGAL interventions are focused on improving animal health, expanding markets for livestock and livestock products, as well as increasing market access and reducing constraints such as raiding and conflict over grazing land and water.

Tables 1.3 and 1.4 show that cow's meat and milk are the most important commodities in terms of production and gross production value. However, camel meat and milk have both increased by more than 150 percent over the past 10 years.

Table 1.3. Kenya's livestock production (1,000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Meat, cattle	350	397	430	445	458	484	464	459	411	425
Meat, goat	40	39	43	44	45	46	47	46	41	42
Meat, sheep	36	37	38	40	39	41	42	41	40	42
Meat, camel	25	20	22	66	75	62	65	65	65	66
Milk, cow	3,392	3,752	3,700	3,202	3,209	3,567	3,639	3,711	3,733	3,750
Milk, goat	122	132	127	130	136	258	260	263	268	224
Milk, sheep	33	34	30	28	30	30	31	2	33	34
Milk, camel	368	289	328	619	854	877	892	913	934	937

Source: FAOSTAT 2015 (accessed October 22, 2015).

[13] IGAD. (2013).
[14] Farmer, E., and Mbwika, J. (2012).
[15] KNBS. (2010c).

Table 1.4. Gross production value (constant 2004-2006, million USD), by year

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Meat, cattle	946	1,071	1,162	1,202	1,238	1,308	1,253	1,239	1,110	1,149
Meat, goat	96	93	102	106	107	111	112	109	97	101
Meat, sheep	97	100	102	110	107	111	113	113	110	114
Meat, camel	53	41	47	138	156	131	135	135	135	138
Milk, cow	1,059	1,171	1,155	999	1,001	1,113	1,135	1,158	1,165	1,170
Milk, goat	41	44	43	44	46	86	87	88	90	75
Milk, sheep	13	13	12	11	12	12	12	12	13	13
Milk, camel	126	99	112	211	291	299	304	311	318	319

Source: FAOSTAT. 2015 (Accessed Oct. 22, 2015).

1.3 Purpose of This Report

The purpose of this interim assessment is to provide the U.S. Government (USG) interagency partners, USAID BFS, USAID Missions, host country governments, and development partners with information about the current status of the ZOI indicators. The assessment is designed for use as a monitoring tool, and as such, provides point estimates of the indicators with an acceptable level of statistical precision. However, Feed the Future ZOI sample calculations are not designed to support conclusions of causality or program attribution, nor is the interim assessment designed to measure change from the baseline with statistical precision.

2. Methodologies for Obtaining Interim Values for Feed the Future Indicators

This section describes the methodology used to obtain the population-based Feed the Future indicators. It provides information on the data sources and describes measures and reporting conventions used throughout the report.

2.1 Data Sources

Table 2.1 presents the data sources and dates of data collection for the baseline and interim Feed the Future indicators.

Table 2.1. Data sources and dates of the baseline and interim Feed the Future indicators

Indicator	Baseline		Interim	
	Data source	Date collected	Data source	Date collected
Daily per capita expenditures (as a proxy for income) in USG-assisted areas	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of Poverty: Percent of people living on less than $1.25/day	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Depth of Poverty: Mean percent shortfall relative to the $1.25/day poverty line	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Women's Empowerment in Agriculture Index indicators	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of households with moderate or severe hunger	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Women's Dietary Diversity: Mean number of food groups consumed by women of reproductive age	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of exclusive breastfeeding among children under 6 months of age	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of children 6-23 months receiving a minimum acceptable diet	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of women of reproductive age who consume targeted nutrient-rich value chain commodities	Not available	–	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of children 6-23 months who consume targeted nutrient-rich value chain commodities	Not available	–	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of underweight women	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of stunted children under 5 years of age	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of wasted children under 5 years of age	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015
Prevalence of underweight children under 5 years of age	FTF FEEDBACK ZOI Survey	January 2013	FTF FEEDBACK ZOI Survey	May – June 2015

2.1.1 Primary Data: The ZOI Interim Survey in Northern Kenya

This section describes the ZOI interim survey, including discussion of the sample design (including targeted sample size), questionnaire customization, fieldwork, response rates, and limitations of the survey.

Survey Sample Design

The survey sample was designed to provide data for this interim assessment and the REGAL program IE. Data were collected over a nine county region: Baringo, Garissa, Isiolo, Mandera, Marsabit, Samburu, Tana River, Turkana, and Wajir. Data of the four counties outside of the ZOI (Tana River, Mandera, Samburu, and Baringo) are used as a comparison for the REGAL IE, and are not presented in this report.

Below we describe the sample size calculation, sample selection, and sample weights.

Sample Size Calculation

The purpose of the interim indicator assessment is to provide estimates of the population-based indicators with an acceptable level of statistical accuracy. The interim survey sample sizes were calculated to provide point estimates of indicator values rather than calculating sample sizes to detect change in indicator values over time. Point estimates measure indicators for a point in time with a given amount of precision, whereas measuring change over time would compare differences in indicator values between baseline and interim. A sample size based on point estimates is preferable to a sample designed to measure change over time, because point estimates will require a smaller sample size.

In sample size calculations, the margin of error determines the amount of precision the indicator estimates will have. For continuous variables such as expenditures, the margin of error was based on the mean indicator value times 0.10; the margin of error for proportions (poverty, stunting, and wasting) was calculated with 0.10.

Standard deviations (SDs) and design effects (DEFFs) for sample size calculation was estimated using baseline survey data. We calculated sample sizes using projected interim indicator values based on the Mission's 2015 targets in the Feed the Future Monitoring System. In cases where indicators have no targets, projected interim values were calculated based on a 10 percent change from baseline.

All sample sizes were further adjusted for non-response using the non-response rate from the baseline survey or a 10 percent non-response rate if the former either was not provided or was greater than 10 percent. For all indicators, the sample sizes are for the populations associated with the indicator. The proportion of the population of interest (e.g., children under 5 years of age for underweight children and women of reproductive age for underweight

women) in the total population and the average number of household members were estimated based on baseline survey data, and used to calculate the number of households needed for an indicator.[16]

Sample sizes were calculated for each of the key Feed the Future indicators (poverty, daily per capita expenditures, stunting, and underweight). Using estimates from the baseline survey of the average number of children 0-5 months per household, we also calculated sample size needed for capturing 70 children in this age range. Collecting data on at least 70 children was chosen in order to be large enough to provide some precision in measurement, but not so large as to require a large number of households. Exclusive breastfeeding in general requires a large sample size because there are few children of breastfeeding age.

Table 2.2 shows the estimated sample sizes for the relevant population-based indicators. The minimum sample size required to calculate the exclusive breastfeeding indicator also is included in the table. The minimum required sample size is 2,054 households, based on the required sample size for per-capita expenditures. Based on the non-response rate for per-capita expenditures from the baseline, the estimated target sample size for the interim survey is 2,100 households.

Table 2.2. Sample size estimate for the key indicators and exclusive breastfeeding

Indicator	Baseline value	DEFF	Std. dev.	Estimated interim value	Sample size	Number of households needed
Prevalence of poverty	55.1	4.96	-	49.6	476	485
Prevalence of underweight children	19.7	1.83	-	17.7	102	199
Prevalence of stunted children	29.4	1.65	-	26.5	123	240
Per capita expenditures (as a proxy for incomes)	1.98	1.95	3.61	2.18	2,054	2,100
Prevalence of exclusive breastfeeding of children <6 months	51.6	1.72	-	56.8	70	772

Sample Selection

The sample was designed to provide data to compare indicator values between high program intensity and medium intensity areas, high and low intensity areas, and medium program intensity and low intensity areas. Counties were grouped into program intensity area based on the level or REGAL programming: "High" corresponding to REGAL-IR and REGAL-AG, "medium" corresponding to REGAL-IR, and "low" corresponding to the four counties outside of the ZOI where there is no REGAL programming. Within each of these areas, sampling was based on a two-stage design, with stratification by county and urban/rural. In the first stage,

[16] Stukel, D., and Deitchler, M. (2012).

44 enumeration areas (EAs) were selected for each of the intensity areas. EA selection in each stratum was performed by probability proportional to size (PPS) sampling. In the medium and low intensity areas KNBS selected EAs from the 2009 Population and Housing Census of Kenya. In the high intensity area, FTF FEEDBACK drew a subsample of the Kenya DHS EAs. Two different frames were the source for EAs in the three areas, because after the original sample selection was completed and households listed, it was determined that there would not be enough EAs in the high intensity area for analysis when that area is the main focus of project activities. Rather than draw additional EAs in the high intensity area and conduct a new household listing process for those EAs, it was decided to utilize an existing sample of EAs from the recent DHS survey for all EAs in the high intensity area. EAs were subsampled from the list of EAs for the DHS.

In the second stage, 16 households within each selected EA were selected randomly from a list of eligible households in the medium and low intensity areas, while 18 households were selected in the high intensity areas due to potentially higher non-response in that area.

Within each household, different individuals may have been selected to answer questions in the various modules in the questionnaire. First, the household roster and dwelling characteristics modules were answered by a responsible adult age 18 years or older. Then, an adult familiar with food consumed by the household was selected to answer questions in the expenditures module on food consumption. An adult familiar with other household expenditures was selected to answer the questions on those expenditures. This may or may not have been the same person who answered questions on food consumption. The person responsible for food preparation in the household was selected to answer questions on household hunger. In the process of completing the household roster, the primary female decisionmaker was identified. The WEAI module was answered by the primary adult female decisionmaker. All women 15-49 were to answer questions in the anthropometry and dietary diversity module, and be weighed. Caregivers of children age 6 or younger in the household roster were interviewed for the child anthropometry and dietary diversity module. Children under age 6 were then weighed and measured. Capturing children age 6 and under will ensure that children 5 and under are included in the sample because increasing the age range will help account for errors in age reporting in the household roster.

Sample Weights

Data required for statistical weighting of survey data were collected throughout the sampling process. These data included, but were not limited to: (1) number of households from the sampling frame used for selection of EAs, (2) population of strata (i.e., region, urban/rural) from which EAs are drawn, (3) number of households in selected EAs at the time of listing, and (4) response rates at the household and individual (women, men, and children) levels.

Computations based on the survey sample were weighted so that the results accurately reflected the proportions of the sampled elements within the overall sample frame of the population in the ZOI. Details of how weights were computed are provided in Appendix 2.

Questionnaire Design

The questionnaire used for the ZOI interim survey in northern Kenya was based on the population-based survey instrument for Feed the Future ZOI indicators for the interim assessments. Questions relating to targeted NRVCC (beef, camel meat, mutton, goat meat, cow milk, camel milk, sheep milk, and goat milk) were added to address Feed the Future programming for those commodities in northern Kenya. The questionnaire also included a resilience module to collect data on household's exposure to shocks and stresses and their responses.

FTF FEEDBACK provided training in customization, pretesting, and translation of the questionnaire to Kimetrica, the in-country data collection partner. FTF FEEDBACK modified the questionnaire based on customizations recommended by Kimetrica and pretest findings, with USAID/BFS review and approval of the revisions.

The questionnaire was translated into three native languages spoken by 10 percent or more of the population in the ZOI. In northern Kenya, the questionnaire was translated into Kiswahili, Somali, and Turkana. The quality of the translation(s) was assured by using a team translation approach with back translation from the main translation. Translations were incorporated into the data entry program on the tablet computers that were used for data collection in the households.

Questionnaires were further refined based on observations during training, the pilot, and initial days of fieldwork.

Fieldwork

Preparation for fieldwork began with thorough training of the Kimetrica specialists to conduct and supervise fieldwork. A senior FTF FEEDBACK trainer trained six Kimetrica trainers and support staff in April 2015.

The Kimetrica trainers then trained the field staff in May 2015. Field staff were carefully selected residents of survey areas, fluent in local languages and customs. Most had worked on the baseline FTF FEEDBACK PBS and/or the Kenya DHS. Training of field staff reflected the procedures detailed in the FTF FEEDBACK interviewing and field supervision manuals. The FTF FEEDBACK trainer supported the field training, including providing training on use of the tablets for data collection. Trainees' comprehension of the material imparted was assessed periodically throughout the training. Trainees also participated in role plays to practice important skills and responses to common fieldwork challenges.

At the conclusion of training, Kimetrica senior management and trainees, joined by the FTF FEEDBACK trainer, conducted a pilot test of all procedures. At the conclusion of the pilot test, FTF FEEDBACK and Kimetrica senior management considered findings from the pilot test and made final modifications to procedures, the questionnaires, and the data entry programs.

A final field team of 16 field supervisors, 16 quality control (QC) interviewers, and 93 interviewers conducted fieldwork from May to June 2015. The field teams visited each selected EA and household. Up to three visits were made to each household so that all eligible members of the household could be interviewed. Senior quality assurance staff from Kimetrica visited each field team on a regular basis to assure that procedures were being followed and to provide any needed supplies.

Data for completed household interviews that had been reviewed and approved were uploaded to FTF FEEDBACK servers on a daily basis, where possible. When lack of internet access precluded this, data were submitted prior to starting work in the next assigned EA.

A data management team at FTF FEEDBACK worked with a data manager in Kimetrica headquarters to review data and case completion regularly. These reviews informed fieldwork where necessary to improve data quality.

Limitations of the Survey

The heightened security situation in northern Kenya during fieldwork posed a number of challenges. Given the fluid and insecure situation, Kimetrica had proposed a number of measures to safely conduct fieldwork in this environment. Kimetrica added a county-level security coordinator who worked with field supervisors to assure safety for the field teams. FTF FEEDBACK worked closely with Kimetrica, USAID/BFS, and the USAID Mission in Kenya to monitor and adjust survey activities as needed.

In addition to the county-level security coordinator, three key adjustments were implemented to ensure safety:

- The teams completed the work in each EA in a shorter time period to minimize the length of time in the EA. Staying longer than 2 days would have made the field team's presence more visible and put the field team at more risk.
- Field teams were restructured to enhance its ability to complete 16 interviews in 2 days and fit the team in one vehicle. The teams were composed of one field supervisor, one QC interviewer, five interviewers, and a driver.
- Instead of conducting the household interview in pairs, the interviewers conducted the interview primarily alone, with an additional interviewer for the later part of the interview that required anthropometry.

An additional limitation of the survey involved an aspect of the sampling frame used for the IE. The FTF FEEDBACK technical team used the 2009 sampling frame for the Population and Housing Census of Kenya for the REGAL IE medium and low intensity areas. That sampling frame was prepared in 2007/2008, and may not be up to date. In many selected EAs, the number of households listed are very different from the number in the frame. This would cause increased variation in sampling weights. However, for the high intensity areas, EAs were selected from the DHS sample and the frame was updated in 2014.

Higher non-response rate was found in the high intensity areas, and three EAs in those areas could not be interviewed due to potentially life-threatening security concerns.

ZOI Interim Survey Response Rates

Table 2.3 presents the response rates for the ZOI interim survey for northern Kenya. The components and the response rates for the sampled households, women of reproductive age (15-49), primary adult female decisionmakers (for the Women's Empowerment in Agriculture module), as well as children under 5 years are presented. Response rates are presented by rural/urban residence as well as for the total sample.

Table 2.3. Results of the household and individual interviews for the ZOI interim survey in northern Kenya 2015

Response rates and components	Residence		Total
	Urban	Rural	
Households			
Households selected	428	1,013	1,441
Households occupied	349	864	1,213
Households interviewed	342	851	1,193
Household response rate[1]	98.0	98.5	98.4
Women of reproductive age (15-49 years)			
Number of eligible women	317	729	1,046
Number of eligible women interviewed	288	672	960
Eligible women response rate[2]	90.9	92.2	91.8
Primary adult female decisionmakers (age 18+ years)			
Number of eligible women	282	780	1,062
Number of eligible women interviewed	280	773	1,053
Primary adult female response rate[2]	99.3	99.1	99.2
Children under 5 years of age			
Number of eligible children	215	741	956
Number of caregivers of eligible children interviewed	208	736	944
Eligible children response rate[2]	96.7	99.3	98.7

[1] Household response rates are calculated based on the result codes of Module C, the household roster, and are defined as the number of households interviewed divided by the number of households occupied. Unoccupied households were excluded from the response rate calculations. The unoccupied households were those that were found to be vacant, not a dwelling unit, dwelling unit destroyed, or with an extended absence, or other result code.

[2] Individual response rates are calculated based on the result codes in the relevant individual modules, i.e., Modules G, H, and I. These rates are defined as the number of eligible individuals interviewed divided by the number of eligible individuals. Eligibility is determined in modules G, H, and I, respectively. (Note that for children under 5 years of age [Module I], the primary caregivers of the children served as the respondents, not the children directly.)

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

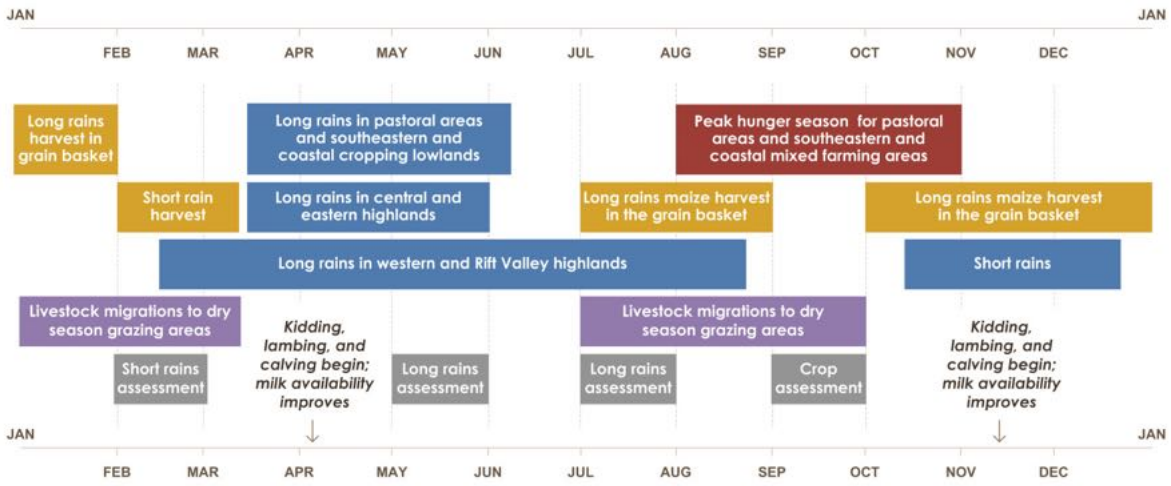
2.1.2 Comparability of Data Sources Used for the ZOI Interim Assessment

This section discusses the comparability across data sources for the interim assessment.

Seasonality

The interim data collection occurred during the wet season, whereas the baseline fieldwork was completed before the long rains (in January and February 2013). **Figure 2.1** shows that in a typical year, long rains in pastoral areas last from mid-March to early June. Since both the baseline and interim surveys where done in a rainy time of year (and not in the hunger season), it is not expected that the differences in the timing of the two surveys will affect the comparability of indicator values between these surveys. In particular, indicators such as Household Hunger Scale (HHS), Women's Dietary Diversity, and MAD are not expected to be affected by the difference in the timing of the two surveys.

Figure 2.1. Seasonal calendar



Source: Famine Early Warning System (FEWS Net). Food Security Brief. December 2013.

2.2 Measures and Reporting Conventions Used Throughout This Report

2.2.1 Standard Disaggregates

A standard set of disaggregate variables are used in tables throughout this report. This section lists each of the standard disaggregate variables and defines how the variable is calculated.

Age in Months

The age of children in months is collected in the child nutrition-focused module of the questionnaire, rather than in the household roster, so that the child's parent or primary caregiver can be prompted to provide the most accurate age possible. Children's age in months is presented by monthly age groups as appropriate for the children's dietary intake and anthropometry tables. For example, for the MAD table (Table 6.6), which presents the MAD indicator for children age 6-23 months, children's age in months is disaggregated into 6-month age groups as follows: 6-11 months, 12-17 months, and 18-23 months. For the children's anthropometry tables (Tables 7.2, 7.3, and 7.4), which present the prevalence of stunting, wasting, and underweight for all children under 5 years of age, children's age in months is disaggregated into 12-month age groups as follows: 0-11 months, 12-23 months, 24-35 months, 36-47 months, and 48-59 months.

Age in Years

Data on respondent's age in years is collected in the household roster. For women age 15-49 and children under age 6, more detailed age data are collected in subsequent questionnaire modules to confirm eligibility to respond to the module questions; these more detailed age data are used where available. Age is generally presented in the tables in 5- or 10-year age groups.

Child Sex

The sex of the child – male or female – is a standard disaggregate for the tables presenting children's indicators, e.g., children's anthropometry (Tables 7.2, 7.3, and 7.4).

Educational Attainment (Household)

Household educational attainment reflects the highest level of education attained by any member of the household, as reported in the household roster of the corresponding questionnaire. This variable is used in tables that present household-level data, and is comprised of four categories: No education (households where no member has received any formal education); less than primary (households with at least one member who has entered the formal schooling system, but with no member who has completed primary); primary (households with at least one member whose highest educational attainment is completed primary, but with no member who has completed secondary); and secondary or more (households with at least one member whose highest educational attainment is completed secondary education or more). Households are categorized in only one of the four categories.

Educational Attainment (Individual)

Educational attainment at the individual level reflects the highest level of education attained by individual household members, as reported in the household roster of the corresponding questionnaire. This variable is comprised of four categories: No education (those who have not received any formal education), less than primary (those who have entered the formal schooling system but whose educational attainment is less than completed primary); primary (those who have completed primary but have not completed secondary); and secondary or more (those who have completed secondary education or more).

Gendered Household Type

Feed the Future Monitoring and Evaluation Guidance Series *Volume 6: Feed the Future Measuring Gender Impact Guidance* notes that household-level indicators should be disaggregated by *gendered household types* – that is: (1) households where members include both male and female adults;[17] (2) households where members include male adult(s), but no female adults; (3) households where members include female adult(s), but no male adults; and (4) households with only members under age 18 (children), i.e., households with children only and no adult members. This approach to conceptualizing household type is distinct from the standard *head of household* approach, which is embedded with presumptions about household gender dynamics and may perpetuate existing social inequalities and prioritization of household responsibilities that may be detrimental to women (USAID 2014:1).[18]

This variable is calculated using data on age and sex collected in the household roster of the survey questionnaire.

Household Hunger

As described in greater detail in Section 6.1 of this report, the HHS characterizes households according to three categories of hunger severity: Little to no household hunger, moderate household hunger, and severe household hunger. For the purposes of serving as a disaggregate in selected tables, the HHS is converted to a dichotomous measure reflecting households that report little to no household hunger, and households that report moderate or severe household hunger.

[17] Adult is defined as age 18 or older, which is the age where an individual is considered an adult in many countries. At this age, individuals are expected to be able to make decisions.

[18] United States Agency for International Development (USAID). (2014). Feed the Future M&E Guidance Series. Volume 6: Feed the Future Measuring Gender Impact Guidance, March. Accessed 27 March 2015 at http://www.feedthefuture.gov/resource/volume-6-feed-future-measuring-gender-impact-guidance.

Household Size

For the ZOI surveys, household size is defined as the total number of people who: (1) are reported to be usual members of the household; and (2) have spent the night in the household within the past 6 months. This ordinal household size variable is recoded into a categorical variable as follows: Small households (1-5 members), medium households (6-10 members), and large households (11 or more members). Note that other household survey programs may use a slightly different definition of household member from that used in the ZOI surveys.

2.2.2 Reporting Conventions

The Feed the Future ZOI interim assessment reports are primarily descriptive in nature. This section provides an overview of the conventions used in reporting these descriptive results.

- In the tables throughout this report, weighted point estimates and unweighted sample sizes (denoted by *n*) are presented.
- Most estimates are shown to one decimal place, with the specific exceptions of per capita expenditures and the women's dietary diversity indicators, which are shown to two decimal places. Unweighted sample sizes in all tables and the population estimates in Tables 1.1 and 1.2 are shown as whole numbers.
- Values in the tables are suppressed when the unweighted sample size is insufficient to calculate a reliable point estimate ($n<30$); this is denoted by the use of the symbol ^ in the designated row and an explanatory footnote.

Bivariate relationships are described using cross tabulation, and the strength and direction of the relationships are assessed through the use of statistical tests. Analyses are performed in Stata using *svy* commands to handle features of data collected through the use of complex survey designs, including sampling weights, cluster sampling, and stratification.

Statistical significance ($p<0.05$) is denoted with matched superscripted letters attached to the row (usually the disaggregate variable) and column (usually the outcome variable) headings. Explanatory footnotes following each table clarify the meaning of the significance test annotation, and statistically significant relationships are highlighted in the narrative throughout the report.

3. ZOI Interim Survey Population

This section describes the background characteristics of the ZOI population using data from the ZOI interim survey.

3.1 Demographics

Table 3.1 presents demographic characteristics of the households in the ZOI. Values are shown for all households, as well as by categories of gendered household type. This table presents the average household size, as well as the average number of female adults and children within the household. Household education, defined as the highest level of education of any member of the household, is also presented in this table.

Among all households in the ZOI, the average household size is 4.7 people. Male and female adult households have an average of 5.4 members, whereas female adult-only and male adult-only households have an average of 3.6 and 1.9 people, respectively. As shown in the superscripts in Table 3.1, household size varies significantly by gendered household type.

Table 3.1. Household demographic characteristics

Characteristic	Total (all households)	By gendered household type[a]			
		Male and female adult	Female adult(s) only	Male adult(s) only	Child only
Mean household size[a]	4.7	5.4	3.6	1.9	–
Mean number of adult female household members[1,2,a]	1.1	1.2	1.2	0.0	–
Mean number of children (<2 years)[1,a]	0.3	0.4	0.2	0.0	–
Mean number of children (0-4 years)[1,a]	0.8	1.0	0.6	0.1	–
Mean number of children (5-17 years)[1,a]	1.8	2.0	1.8	0.6	–
Mean percentage of adults who are female[1,2]	55.3	48.6	100.0	0.0	–
Highest education level attained[a]					
No education	37.8	35.4	48.0	31.4	–
Less than primary	22.0	21.6	28.1	10.4	–
Primary	32.0	33.2	22.0	46.2	–
Secondary or more	8.3	9.8	2.0	12.0	–
n[3]	**1,193**	**854**	**237**	**102**	**0**

[1] The count is based on household members with known age.

[2] Feed the Future defines adult as an individual age 18 or older. Females age 15-17 are of reproductive age, but are not considered adults by this definition.

[3] Sample n is the unweighted count of all households that responded to the survey.

[a] Significance tests were performed for associations between household characteristics and gendered household type. For example, a test was done between mean household size and gendered household type. When an association is found to be significant ($p<0.05$), a superscript is noted next to the household characteristic.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

The average number of adult females age 18 or over in ZOI households is 1.1. With respect to children, the average number of children under 2 years is 0.3; the average number of children 0-4 years is 0.8; and the average number of school-age children, those 5-17 years, is 1.8. All four of these household demographic characteristics—mean number of adult females, children under 2, children 0-4, and children 5-17—vary significantly by gendered household type.

Over half (55.3 percent) of adults in ZOI households are female. Over one-third of the households in the ZOI (37.8 percent) have no education. Fewer households (32.0 percent) have primary education (i.e., they have at least one member whose highest level of education is completed primary, but no members with completed secondary or greater), followed by less than primary education (22.0 percent). Only 8.3 percent of households in the northern Kenya ZOI have secondary or more education. Gendered household type is significantly associated with household educational attainment.

Table 3.2 shows characteristics of the primary adult male and female decisionmakers in the sampled households in the ZOI. The primary adult male and female decisionmakers are household members age 18 or over who self-identify as the primary adult male and/or primary adult female responsible for both social and economic decisionmaking within the household. When they exist within a single household, primary adult male and female decisionmakers are typically, but not necessarily, husband and wife. Table 3.2 shows the age group, literacy status, and educational attainment for these household members. These characteristics are shown for all primary adult decisionmakers and primary adult decisionmakers according to sex.

Table 3.2. Characteristics of the primary male and female adult decisionmakers

Characteristic	Total (all primary adult decisionmakers)		By primary adult decisionmaker sex[a]			
			Male		Female	
	Percent	n	Percent	n	Percent	n
Age[a]						
18-24	11.8	1,902	4.7	834	17.2	1,068
25-29	14.8	1,902	11.1	834	17.7	1,068
30-39	26.5	1,902	27.5	834	25.8	1,068
40-49	15.3	1,902	20.3	834	11.5	1,068
50-59	15.5	1,902	16.7	834	14.6	1,068
60+	16.0	1,902	19.7	834	13.2	1,068
Literacy[a]						
Percent literate[l]	25.7	1,902	34.8	834	18.8	1,068
Educational attainment[a]						
No education	74.5	1,901	65.8	834	81.2	1,067
Less than primary	4.6	1,901	3.8	834	5.2	1,067
Primary	16.2	1,901	22.9	834	11.0	1,067
Secondary or more	4.7	1,901	7.5	834	2.6	1,067

[l] The percent who are literate comprises those who report that they can both read and write.

[a] Significance tests were performed for associations between the sex and background characteristics of the decisionmaker. For example, a test was done between sex and age of the decisionmaker. When an association is found to be significant ($p<0.05$), a superscript is noted next to the characteristic.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Among all primary adult decisionmakers, the modal age group is 30-39; 26.5 percent are within that age group. The age of household decisionmakers varies significantly by sex, with a greater proportion of female than male decisionmakers in the youngest age groups (18-24 and 25-29). Among all primary decisionmakers, about one-quarter (25.7 percent) are literate, and decisionmaker literacy status is also significantly associated with sex. Nearly twice as many male decisionmakers are literate compared to female decisionmakers (at 34.8 and 18.8 percent, respectively).

Decisionmakers' educational attainment is consistent with the literacy finding; highest education attained differs significantly by sex, with the majority of female decisionmakers—81.2 percent of all female decisionmakers—in the "no education" group. Similarly, a greater share of male decisionmakers has attained secondary or more education (7.5 percent).

3.2 Living Conditions

Table 3.3 shows dwelling characteristics of the households in the ZOI. Many of these measures align with the 2015 Millennium Development Goals (MDG) definitions (UNDG 2003). The table presents the percentage of households who have access to an improved water source, improved sanitation, electricity, and solid cooking fuel. The average number of people per sleeping room, as well as roof, exterior wall, and floor materials are also presented. Values are shown for all households.

Table 3.3 reveals that about two-thirds (66.2 percent) of ZOI households have access to improved water. This is similar to findings from other data sources; the 2008-2009 Kenya DHS, the most recent DHS available,[19] reports that 53.8 percent of Kenya's rural households, and 63.0 percent of all Kenyan households, have improved drinking water.[20]

Relative to improved drinking water access, a much smaller share of ZOI households has access to improved sanitation. About 1 in 10 ZOI households (10.3 percent) has access to improved sanitation. The 2008-2009 Kenya DHS improved sanitation value is higher; the DHS rural value is 20.1 percent and the DHS national value is 22.6 percent.[21]

Households in the northern Kenya ZOI have an average of nearly four (3.7 persons) per sleeping room. Virtually all households in the ZOI—99.0 percent—report using solid cooking fuel, and an MDG indicator, and only 17.3 percent of ZOI households have access to electricity. These values are fairly consistent with the 2008-2009 DHS values of 96.6 percent of rural Kenyan households (and 84.0 percent nationally) reporting solid cooking fuel sources

[19] A DHS was conducted in Kenya in 2014. However at the time of this writing, 2014 water and sanitation indicators have not yet been reported.
[20] KNBS and ICF Macro. (2010). p. 21.
[21] Ibid, p. 22.

(coal/lignite, charcoal, wood, straw/shrubs/grass, and agricultural crops), and 8.1 percent of rural Kenyan households (and 23.0 percent nationally) with access to electricity.[22]

Most households in the northern Kenya ZOI have natural roofs—no roof, or roofs of thatch/grass or dung/mud (49.7 percent) or rudimentary roofs—roofs composed of rustic mats, palm/bamboo, wood planks, corrugated iron, tin cans, or plastic sheeting (46.1 percent). Only 4.2 percent of ZOI households have finished roofs, or roofs made from metal, wood, calamine/cement fiber, tiles, concrete, roofing shingles, or asbestos sheeting.

Table 3.3. Household dwelling characteristics

Characteristic	Total (all households)	
	Estimate	n
Percent with improved water source[1]	66.2	1,193
Percent with improved sanitation[2]	10.3	1,193
Mean persons per sleeping room[3]	3.7	1,193
Percent using solid fuel for cooking[4]	99.0	1,185
Percent with access to electricity	17.3	1,193
Household roof materials (%)[5]		
Natural	49.7	1,106
Rudimentary	46.1	1,106
Finished	4.2	1,106
Household exterior wall materials (%)[6]		
Natural	26.0	974
Rudimentary	31.5	974
Finished	42.5	974
Household floor materials (%)[7]		
Natural	72.9	1,190
Rudimentary	0.7	1,190
Finished	26.4	1,190

[1] Improved water sources include *piped water into the dwelling, piped water into the yard, a public tap/standpipe, a tube well/borehole, a protected dug well, a protected spring,* and *rainwater* (WHO and UNICEF 2006). The proportion of the population with sustainable access to an improved water source is the 2015 MDG indicator #30 (UNDG 2003); however, as in most major international survey programs, the measure reported here reflects only access to an improved water source, and not the sustainability of that access.

[2] Improved sanitation facilities are those that separate human excreta from human contact and include the categories *flush to piped sewer system, flush to septic tank, flush/pour flush to pit, composting toilet, ventilated improved pit latrine,* and a *pit latrine with a slab*. Because shared and public facilities are often less hygienic than private facilities, shared or public sanitation facilities are not counted as improved (WHO and UNICEF 2006). The proportion of the population with access to improved sanitation is the 2015 MDG indicator #31 (UNDG 2003).

[3] The average number of persons per sleeping room is a common indicator of crowding (UNDG 2003).

[4] Solid fuel is defined as *charcoal, wood, animal dung,* and *agriculture crop residue.* The proportion of the population using solid fuels is MDG indicator #29 (UNDG 2003). The *other* and *no food cooked in household* categories are removed from percentages.

[5] Natural roofs include *no roof, thatch/grass* and *dung/mud.* Rudimentary roofs include *rustic mat, palm/bamboo, wood planks, corrugated iron, tin cans, and plastic sheets.* Finished roofs include *metal, wood, calamine/cement fiber, tiles, concrete, roofing shingles, and asbestos sheet.* The *other* category is removed from percentages.

[6] Natural walls include *no walls, cane/palm/trunks,* and *dirt.* Rudimentary walls include *bamboo with mud, stone with mud, uncovered adobe, plywood, cardboard, reused wood,* and *metal sheeting.* Finished walls include *cement, stone with lime/cement, bricks, cement blocks, covered adobe,* and *wood planks/shingles.* The *other* category is removed from percentages.

[7] Natural floors include *earth/sand* and *dung.* Rudimentary floors include *wood planks* and *palm/bamboo.* Finished floors include *parquet/polished wood, vinyl or asphalt strips, ceramic tiles, cement* and *carpet.* The *other* category is removed from percentages.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

[22] Ibid, p. 23.

In contrast to roofs, a greater proportion of ZOI households (42.5 percent) have finished walls, followed by rudimentary walls (31.5 percent), and natural walls (26.0 percent). Most ZOI households (72.9 percent) have natural floors (floors of earth/sand or dung), although over one-quarter (26.4 percent) have finished floors, or floors made of parquet/polished wood, vinyl or asphalt strips, ceramic tiles, cement, or carpet. (Note that the 2008-2009 Kenya DHS report does not present summary measures for natural/rudimentary/finished roofs, walls, and floors.)

3.3 Education

Table 3.4 presents school attendance, educational attainment, and literacy in the ZOI. The table presents the percent of male, female, and all household members under age 25 who are currently attending school. It also presents the percent of household members over age 9 who have attained a primary level of education, as well as the percent of household members who are reported as literate. Sex ratios in school attendance, attainment of primary education, and literacy are also presented. These measures align with MDG education indicators.

In Kenya, primary education is defined as classes 1-3 (or lower primary) and classes 4-8 (or upper primary), totaling 8 years of primary school. Kenyan primary students begin school between the ages of 5 and 7, and the school year runs from January through November (with vacations in April, August, and December).

Table 3.4 reveals that the majority of school-age children and teens in the ZOI are currently attending school, although school attendance varies significantly by age. The modal age category for currently attending school is age 10-14; 70.3 percent of 10-14 year olds in the ZOI are currently attending school. In addition, 19.9 percent of youth age 20-24 in the ZOI are currently attending school. School attendance in the ZOI also varies significantly by sex, with males exhibiting greater levels of school attendance than females in most age groups.

Among ZOI household members age 10 and above, primary education attainment varies significantly by age group as well as by sex, with nearly half of those in the 15-19 and the 20-24 age groups having attained a primary level of education (46.7 and 46.1 percent, respectively). Similarly, literacy varies by age group, with the highest literacy rates in the 15-19 age group, at 67.4 percent. Literacy also varies by sex, with males generally exhibiting higher literacy than females, especially in the oldest age groups.

Table 3.4 also presents female-to-male sex ratios of the three indicators of current school attendance among household members age 5-24, achievement of primary education among household members age 10 and above, and literacy among household members age 5 and above. Values less than 1.0 in this portion of the table illustrate disparities for females, and values greater than 1.0 illustrate disparities for males. In this table, the greatest disparities between males and females appear to be with primary educational attainment and literacy at the oldest age groups, with females exhibiting disadvantage on these measures relative to males.

Notably, there are no values in this female-to-male ratio portion of the table greater than 1.0; in other words, there are no cells demonstrating a male disadvantage.

Table 3.4. School attendance, educational attainment, and literacy

Characteristic	Percent			Female to male ratio			n
	Attending school[1,a]	Attained a primary level of education[2,b]	Literate[3,c]	Attending school[1]	Attained a primary level of education[2]	Literate[3]	
Age group[a,b,c]							
5-9	57.2	n/a[1]	23.0	0.9	n/a[1]	0.8	1,022
10-14	70.3	15.6	65.2	1.0	1.0	1.0	897
15-19	57.2	46.7	67.4	0.8	1.0	0.9	545
20-24	19.9	46.1	52.3	0.6	0.8	0.8	379
25-29	n/a[2]	29.1	36.9	n/a[2]	0.7	0.6	366
30-34	n/a[2]	31.0	37.2	n/a[2]	0.3	0.4	292
35-54	n/a[2]	18.9	25.1	n/a[2]	0.4	0.5	800
55+	n/a[2]	8.5	10.2	n/a[2]	0.0	0.1	497
Sex[a,b,c]							
Female							
Age group							
5-9	55.1	n/a[1]	19.5	n/a[3]	n/a[3]	n/a[3]	472
10-14	70.7	15.5	66.5	n/a[3]	n/a[3]	n/a[3]	437
15-19	49.9	46.6	61.5	n/a[3]	n/a[3]	n/a[3]	198
20-24	16.0	40.8	48.0	n/a[3]	n/a[3]	n/a[3]	201
25-29	n/a[2]	24.4	29.0	n/a[3]	n/a[3]	n/a[3]	216
30-34	n/a[2]	12.7	22.7	n/a[3]	n/a[3]	n/a[3]	149
35-54	n/a[2]	10.6	16.0	n/a[3]	n/a[3]	n/a[3]	391
55+	n/a[2]	0.5	2.2	n/a[3]	n/a[3]	n/a[3]	233
Male							
Age group							
5-9	59.0	n/a[1]	25.9	n/a[3]	n/a[3]	n/a[3]	550
10-14	69.9	15.7	63.9	n/a[3]	n/a[3]	n/a[3]	460
15-19	62.0	46.8	71.3	n/a[3]	n/a[3]	n/a[3]	347
20-24	24.9	52.9	57.7	n/a[3]	n/a[3]	n/a[3]	178
25-29	n/a[2]	35.5	47.9	n/a[3]	n/a[3]	n/a[3]	150
30-34	n/a[2]	50.2	52.5	n/a[3]	n/a[3]	n/a[3]	143
35-54	n/a[2]	27.1	34.0	n/a[3]	n/a[3]	n/a[3]	409
55+	n/a[2]	15.7	17.3	n/a[3]	n/a[3]	n/a[3]	264

n/a[1] Not applicable – Children in the age group 5-9 years are not yet old enough to have attained a primary level of education.

n/a[2] Not applicable – Current school attendance applies to school-age children and youth only, ages 5-24.

n/a[3] Not applicable – Female to male ratios cannot be calculated for male-only and female-only disaggregates.

[1] The ZOI Interim Survey was conducted May-June 2015. Data collection occurred during the Kenyan school year.

[2] The goals of achieving universal primary education and achieving gender equity with respect to education are assessed by multiple MDG indicators, typically using administrative school data. This table presents respondent-reported school attendance, primary educational attainment, and literacy, as well as the ratio of females to males on these measures (UNDG 2003).

[3] The MDG indicators for universal primary education and gender equity within education are assessed through the literacy rate (MDG indicator #8) and the ratio of literate women to men (MDG indicator #10) among young adults, age 15-24 years (UNDG 2003).

[a-c] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading, and age and sex. For example, a test was done for school attendance by sex, and a test was done for school attendance by age. When an association is found to be significant ($p<0.05$), the superscript of the column heading will appear next to the sex row heading and/or next to the age group row heading.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

4. Household Economic Status

This section includes a background discussion of monetary poverty in Kenya, including the logic of the Living Standards Measurement Survey (LSMS)[23] and consumption expenditure methodology. In 2005-06, 45.9 percent of people in Kenya were considered poor, as measured by the Kenya Integrated Household Budget Survey (KIHBS) and reported by the World Bank.[24] National poverty rates are based on the poverty lines of Kenyan shillings (Kshs) 1,562 and Kshs 2,913 per adult per month in rural and urban areas, respectively. Poverty rates decreased to an estimated 43.4 percent by 2012.[25]

Although somewhat dated, information from the KIHBS shows that poverty varies considerably across counties in Kenya,[26] and notably, many of the poorest counties are located within the ZOI. In 2005-06, three of the four poorest counties of Kenya were located within the ZOI. Turkana, with a poverty rate of 94.3 percent, was the poorest county in Kenya.[27] Rates of poverty in the other counties of the ZOI were 84.0 percent in Wajir,[28] 83.2 percent in Marsabit,[29] 72.6 percent in Isiolo,[30] and 49.2 percent in Garissa.[31] These compare to 11.6 percent in the county with the least poverty, Kajiado,[32] and 22.5 percent in the capital of Nairobi.[33]

Estimates of per capita expenditures and poverty prevalence are typically derived from surveys similar to the LSMS. For the Feed the Future ZOI interim assessments, these estimates are derived from the data collected in the household roster and expenditures modules of the ZOI survey or from secondary household expenditures data collected by other organizations. For the northern Kenya ZOI interim assessment, the measures of household economic status are calculated from ZOI survey data, collected from May to June 2015.

Like the LSMS, the expenditures module of the ZOI survey collects data on households' consumption of and expenditures on various food and non-food items in order to infer household income and well-being. Individuals' per capita expenditures are then derived by dividing total household expenditures by the number of household members. From these data,

[23] Grosh, M., and Glewwe, P. 1995. "A Guide to Living Standards Measurement Study Surveys and Their Data Sets." Living Standards Measurement Study Group. Working paper No. 120. The World Bank, Washington, DC.
[24] The World Bank. Data. http://data.worldbank.org/country/kenya. Retrieved on October 26, 2015.
[25] CIA. World Factbook. https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html. Retrieved on October 26, 2015.
[26] Kenya Commission on Revenue Allocation. 2011. *Kenya County Fact Sheets*, p. vii.
[27] Ibid, p. 43.
[28] Ibid, p. 46.
[29] Ibid, p. 25.
[30] Ibid, p. 9.
[31] Ibid, p. 7.
[32] Ibid, p. 10.
[33] Ibid, p. 30.

household expenditure totals are calculated and used as a proxy for household incomes, based on the assumption that a household's consumption is closely related to its income. Household consumption and expenditures are often preferred to income when measuring poverty due to the difficulty in accurately measuring income. According to Deaton, expenditure data are less prone to error, easier to recall, and more stable over time than income data.[34]

4.1 Daily Per Capita Expenditures

Table 4.1 presents daily per capita expenditures, the Feed the Future indicator that measures average daily expenditures within the ZOI per person in 2010 U.S. dollars (USD) after adjusting for 2005 purchasing power parity (PPP).[35] Daily per capita expenditures serve as a proxy for income. This table includes the mean per capita expenditures and percentile distribution of per capita expenditures. The percentiles are interpreted as the percentage of the population that consumes less than the listed value. For example, the cut-off point for the 50th percentile is 1.51. This means that 50 percent of individuals consume less than $1.51 (2010 USD) per day. The 50th percentile is also the median. The percentiles are shown to provide information on the distribution of expenditures. As is typical of expenditure and income data, these estimates are positively skewed, with the majority of the population consuming/spending very little, and a small portion consuming much more. This is apparent because the median per capita expenditure of $1.51 (2010 USD) is much lower than the average per capita expenditure of $2.01 (2010 USD).

Estimates in Table 4.1 are shown for all households as well as disaggregated by household characteristics, including gendered household type, household size, and household educational attainment. The table shows statistically significant differences between the mean per capita expenditures of the different categories of household size and household educational attainment. In general, it appears that smaller households have higher per capita expenditures, and per capita expenditures increase among households with higher levels of education.

[34] Deaton, A. (2008). The Analysis of Household Surveys: A microeconomic approach to development policy. Baltimore: The Johns Hopkins University Press.

[35] Purchasing power parity is a measure of the value of a local currency (Kshs in this case) based on a common basket of goods across countries. PPP measures the value of those goods for a given year (in this case 2005) in Kshs relative to USD. This establishes an exchange rate that can compare the value of the local currency to other currencies.

Table 4.1. Daily per capita expenditures by household characteristic (in 2010 USD)[1]

Characteristic	Estimate (weighted)						
	Mean[a]	Percentile[2]					n[3]
		10th	25th	50th	75th	90th	
Total (All households)	2.01	0.54	0.87	1.51	2.56	4.00	1,160
Gendered household type							
Male and female adults	1.89	0.54	0.87	1.47	2.45	3.81	834
Female adult(s) only	2.01	0.50	0.80	1.50	2.74	4.19	228
Male adult(s) only	4.78	0.74	1.35	2.52	5.01	8.67	98
Child(ren) only (no adults)	-	-	-	-	-	-	0
Household size[a]							
Small (1-5 members)	2.40	0.54	1.05	1.68	2.96	4.98	739
Medium (6-10 members)	1.62	0.52	0.77	1.25	2.00	3.43	405
Large (11+ members)	^	^	^	^	^	^	16
Household educational attainment[a]							
No education	1.59	0.35	0.71	1.24	2.00	3.34	389
Less than primary	1.48	0.56	0.70	1.24	1.93	2.73	249
Primary	2.32	0.64	0.99	1.75	3.10	4.87	428
Secondary or more	3.79	1.25	1.62	2.63	4.60	6.24	94

^ Results not statistically reliable, n<30.

[1] Per capita expenditures measured in Kshs were converted to 2010 USD using the Consumer Price Index (CPI) and the PPP Index estimated by the World Bank. Reported nominal prices were converted to 2005 prices using monthly CPI values released by the KNBS. Expenditures in 2005 prices were converted to 2010 USD using the formula 1/(PPP 2005)* (2010 USD CPI /2005 USD CPI) where 2010 USD CPI =111.65, 2005 USD CPI = 100, and 2005 PPP=32.68. The conversion factor was 0.03416.

[2] The percentile value is the amount of per capita expenditure, in 2010 US dollars, that marks the percentile. For example, the 10th percentile is $0.54. This means that 10 percent of individuals consume less than $0.54 per day.

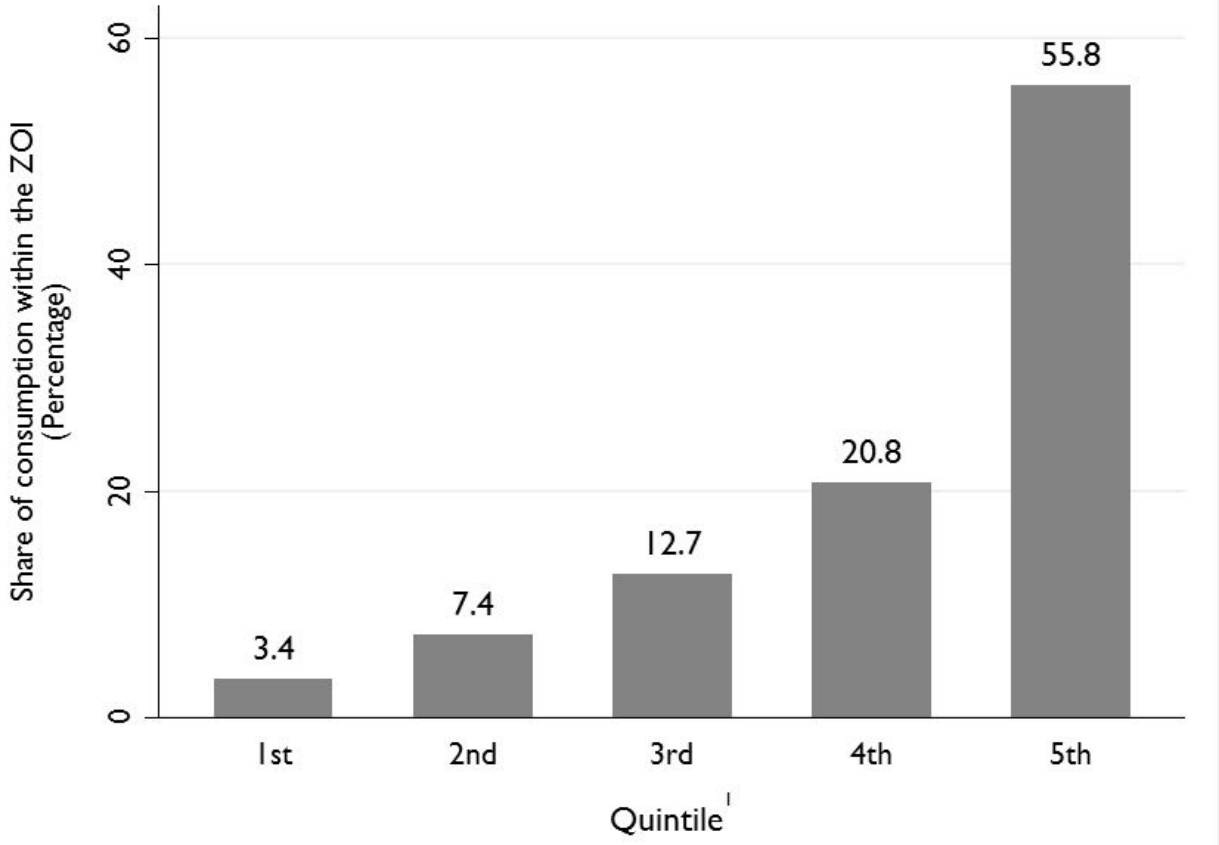
[3] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[a] Significance tests were performed for associations between per capita expenditures and household characteristics. For example, a test was done between per capita expenditures and gendered household type. When an association is found to be significant ($p<0.05$), the superscript is noted next to the household characteristic.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Figure 4.1 shows the share of total consumption per quintile in the ZOI. The share of consumption attributed to the lowest quintile (the bottom 20 percent) is a measure of inequality, and an MDG. This figure shows that the poorest 20 percent within the ZOI consumes only 3.4 percent of the total consumption within the ZOI. Conversely, the wealthiest 20 percent within the ZOI consumes nearly 56 percent of the total consumption within the ZOI.

Figure 4.1. Share of consumption per quintile: Feed the Future ZOI



[1] Share of the poorest quintile in national consumption is an MDG indicator that provides information on income inequality (UNDG 2003). The poorest quintile is determined as the poorest fifth of the population. The poorest quintile's share of total consumption is calculated by dividing the consumption of the poorest quintile by total consumption within the ZOI.

Source: FTF FEEDBACK ZOI Interim Survey, northern Kenya 2015.

4.2 Prevalence and Depth of Poverty in the ZOI

The prevalence of poverty, sometimes called the poverty headcount ratio, is measured by determining the percent of individuals living below a poverty threshold.[36] Estimates of poverty prevalence are sensitive to the poverty thresholds used to identify the poor. A standardized poverty threshold of $1.25 per person per day in adjusted[37] 2005 USD is used to track global changes in poverty across countries and over time, including for the purpose of monitoring progress toward international goals such as the MDG to eradicate extreme poverty and hunger. The $1.25 threshold is in effect the extreme poverty threshold and represents the

[36] Note that expenditure data are not collected at the individual level but rather at the level of the household; individuals' per capita expenditures are then derived by dividing total household expenditures by the number of household members.

[37] Adjustments are made according to PPP conversions. These conversions are established by the World Bank to allow currencies to be compared across countries in terms of how much an individual can buy in a specific country. The $1.25 in 2005 PPP means that $1.25 could buy the same amount of goods in another country as $1.25 could in the United States in 2005.

poverty line typical of the world's poorest countries.[38] Poverty estimates are also presented for an individual country's own poverty and extreme poverty thresholds.

Where the poverty prevalence indicates how *many* individuals are impacted by poverty, it does not speak to how *much* people are impacted by poverty. The depth of poverty, often called the poverty gap, is a useful poverty estimate because it captures the extremity of poverty. This measure indicates the average gap between consumption levels and the poverty line, with the non-poor counted as having a gap of zero. The measure is expressed as a proportion of the poverty line. The depth of poverty or poverty gap represents the entire ZOI population. The average consumption shortfall of the poor, in contrast, is estimated for only those individuals living below the poverty line.

4.2.1 The $1.25 Poverty Threshold

Table 4.2 presents poverty estimates at the $1.25 per day (2005 PPP) threshold. The prevalence of poverty and depth of poverty at the $1.25 per day poverty line are Feed the Future indicators. Similar to the per capita expenditures table, this table presents poverty estimates for all households in the ZOI, as well as disaggregated by household characteristics, including gendered household type, household size, and household educational attainment.

Poverty Prevalence

Forty seven percent (47.0) of individuals in the ZOI live below the $1.25 poverty threshold. Household size and household educational attainment have significant relationships with poverty. Households with more members have higher levels of poverty than those with fewer members. Those households with the highest level of education (secondary or more) have lower poverty than households with lower levels of education.

Depth of Poverty

The depth of poverty in the ZOI is 19.4 percent, which indicates that the average gap between consumption levels of the population and the poverty line is $0.24 (2005 PPP).

The depth of poverty provides an indication of the amount of resource transfers that, if *perfectly* targeted to poor households, would be needed to bring everyone below the poverty line up to the poverty line. With a ZOI population of 3.73 million, a poverty threshold of $1.25 per day, and a poverty gap of 19.4 percent, approximately $905 thousand (2005 PPP) per day would need to be transferred to the poor to bring their income or expenditures up to the poverty threshold.

[38] World Bank. (2011). Poverty & Equality Data FAQs. http://go.worldbank.org/PYLADRLUN0. Accessed 15 April 2015.

Like poverty, depth of poverty has significant relationships with household size and household educational attainment. Larger households have greater depth of poverty than smaller households. Households with the highest level of education (secondary or more) have lower depth of poverty than households with lower education.

Average Consumption Shortfall of the Poor

The average *poor* person within the ZOI lives at 58.8 percent of the poverty line, or 41.2 percent below the poverty line. The average value of consumption of a *poor* person is $0.73 (2005 PPP) per day, or stated differently, the average person living in poverty consumes $0.52 (2005 PPP) less than the $1.25 poverty threshold.

Table 4.2. Poverty at the $1.25 (2005 PPP)[1] per person per day threshold

Characteristic	Prevalence of poverty[2]		Depth of poverty[3]		Average consumption shortfall of the poor[4]		
	Percent population[a]	n[5]	Percent of poverty line[b]	n[5]	In USD 2005 PPP[c]	Percent of poverty line[c]	n[5]
Total (All households)	47.0	1,160	19.4	1,160	0.52	41.2	487
Gendered household type							
Male and female adults	47.9	834	20.0	834	0.52	41.7	386
Female adult(s) only	47.4	228	18.9	228	0.50	39.9	83
Male adult(s) only	27.3	98	9.4	98	^	^	18
Child(ren) only (no adults)	–	–	–	–	–	–	0
Household size[a,b]							
Small (1-5 members)	40.9	739	15.6	739	0.48	38.2	242
Medium (6-10 members)	54.4	405	23.5	405	0.54	43.3	236
Large (11+ members)	^	16	^	16	^	^	9
Household educational attainment[a,b]							
No education	55.5	389	25.3	389	0.57	45.6	181
Less than primary	58.3	249	23.6	249	0.51	40.5	136
Primary	39.4	428	15.0	428	0.47	38.0	155
Secondary or more	15.4	94	3.8	94	^	^	15

^ Results not statistically reliable, n<30.

[1] The Feed the Future poverty indicators are based on the poverty threshold of $1.25 (2005 PPP) per person per day.

[2] The prevalence of poverty is the percentage of individuals living below the $1.25 (2005 PPP) per person per day threshold. Poverty prevalence is sometimes referred to as the poverty incidence or poverty headcount ratio.

[3] The depth of poverty, or poverty gap, is the average consumption shortfall multiplied by the prevalence of poverty.

[4] The average consumption shortfall of the poor is the average amount below the poverty threshold of a person in poverty. This value is estimated only among individuals living in households that fall below the poverty threshold.

[5] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[a-c] Superscripts in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between prevalence of poverty and gendered household type. When an association between the column indicator and row variable is found to be significant ($p<0.05$), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

4.2.2 The National Poverty Threshold

Table 4.3 presents poverty estimates at the national poverty threshold for Kenya. Similar to the $1.25 per day poverty table, this table presents poverty estimates for all households in the ZOI, as well as disaggregated by household characteristics, including gendered household type, household size, and household educational attainment.

Table 4.3. Poverty at the national threshold[1] of 1,562 (rural) and 2,913 (urban) Kshs per adult equivalent per month (2005 prices)

Characteristic	Prevalence of poverty[2]		Depth of poverty[3]		Average consumption shortfall of the poor[4]		
	Percent population[a]	n[5]	Percent of poverty line[b]	n[5]	In USD 2005 PPP[c]	Percent of poverty line[c]	n[5]
Total (All households)	52.7	1,160	22.1	1,160	0.64	42.0	566
Gendered household type							
Male and female adults	54.0	834	22.9	834	0.65	42.3	440
Female adult(s) only	51.2	228	20.8	228	0.61	40.7	99
Male adult(s) only	31.5	98	12.4	98	^	^	27
Child(ren) only (no adults)	–	–	–	–	–	–	0
Household size[b,c]							
Small (1-5 members)	46.4	739	17.7	739	0.58	38.1	303
Medium (6-10 members)	58.0	405	26.4	405	0.70	45.5	251
Large (11+ members)	^	16	^	16	^	^	12
Household educational attainment[b]							
No education	55.5	389	23.7	389	0.53	42.6	184
Less than primary	57.1	249	25.0	249	0.64	43.8	140
Primary	53.5	428	21.8	428	0.73	40.7	219
Secondary or more	29.6	94	10.7	94	^	^	23

^ Results not statistically reliable, n<30.

[1] The most recent national poverty line was established by the KNBS in a report of the Kenya Integrated Household Budget Survey – 2005/06 (KNBS 2007). The national poverty line is defined separately for rural and urban areas. Rural households are considered to be in poverty if the household falls below 1,562 Kshs per month per adult equivalent. Urban households are considered to be in poverty if the household falls below 2,913 Kshs per month per adult equivalent. The national poverty threshold methodology is further described in Appendix 2.2.

[2] The prevalence of poverty is the percentage of individuals living below the national poverty line. Poverty prevalence is sometimes referred to as the poverty incidence or poverty headcount ratio.

[3] The depth of poverty, or poverty gap, is the average consumption shortfall multiplied by the prevalence of poverty.

[4] The average consumption shortfall of the poor is the average amount below the poverty threshold of a person in poverty. This value is estimated only among individuals living in households that fall below the poverty threshold.

[5] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[a-c] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between prevalence of poverty and gendered household type. When an association between the column indicator and row variable is found to be significant ($p<0.05$), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

The national poverty lines in Kenya were identified using data from the KIHBS 2005/06. The poverty lines were estimated using a cost of basic needs approach. Unlike the $1.25 poverty per person per day threshold, the national poverty lines were created for adult equivalents and

were developed as monthly amounts. The national absolute poverty line is 1,562 (rural) and 2,913 (urban) Kshs per adult equivalent per month (2005 prices).[39] In 2005 PPP, the national rural and urban poverty lines are $47.80 and $89.14, respectively.[40] The *average,*[41] national poverty thresholds per person per day are 39 and 75 Kshs in 2005 prices ($1.19/$2.31 2005 PPP) in rural and urban areas, respectively.

Poverty lines created in *adult equivalents* are not neatly comparable to poverty lines defined in *per capita* terms. Poverty thresholds defined in adult equivalents vary based on one's age and/or sex whereas per capita thresholds do not vary based on age or sex. The difference between *adult equivalents* and *per capita* thresholds are further discussed in Appendix 2.2.

As seen in Table 4.3, 52.7 percent of individuals in the ZOI live below the national poverty threshold. The national poverty line identifies more individuals as poor than does the $1.25 poverty threshold. This is because urban households require, on average, a $2.31 to meet the national threshold while the same households only require $1.25 to meet the international extreme threshold of $1.25 2005 PPP. As was shown in Table 1.1 of Chapter 1, there are more than 1.1 million individuals in the urban areas of the ZOI, making up roughly 30 percent of the total ZOI population.

Despite the higher rates of poverty recorded while using the national threshold, the relationships between poverty and household characteristics (gendered household type, household size, and household educational attainment) are similar to those observed in Table 4.2. Generally speaking, rising levels of education are associated with greater levels of economic well-being, and larger households are associated with lower levels of economic well-being. In Table 4.2, these relationships are statistically significant with regards to the poverty prevalence and depth of poverty. In Table 4.3, depth of poverty is significantly different among different household sizes and levels of educational attainment. Moreover, the average consumption shortfall of the poor significantly differs between levels of household size.

4.2.3 The National Extreme Poverty Threshold

Table 4.4 presents poverty estimates at the extreme poverty threshold for Kenya. Similar to prior expenditures and poverty tables, this table presents poverty estimates for all households in the ZOI, as well as disaggregated by household characteristics, including gendered household type, household size, and household educational attainment.

[39] KNBS. (2007a). pp. 26-27.
[40] A table of national poverty lines that have been converted to 2005 PPP and converted to daily values is presented in Appendix 2.2.
[41] These averages are based on the sample of 1,160 households included in the ZOI analysis.

Table 4.4. Poverty at the national extreme threshold[1] of 988 (rural) and 1,474 Kshs (urban) per adult equivalent per month (2005 prices)

Characteristic	Prevalence of poverty[2]		Depth of poverty[3]		Average consumption shortfall of the poor[4]		
	Percent population[a]	n[5]	Percent of poverty line[b]	n[5]	In USD 2005 PPP[c]	Percent of poverty line[c]	n[5]
Total (All households)	27.5	1,160	9.5	1,160	0.29	34.8	265
Gendered household type							
Male and female adults	28.2	834	9.9	834	0.29	35.0	210
Female adult(s) only	26.4	228	8.6	228	0.26	32.6	42
Male adult(s) only	15.8	98	6.7	98	^	^	13
Child(ren) only (no adults)	–	–	–	–	–	–	0
Household size[a,b]							
Small (1-5 members)	20.4	739	7.5	739	0.30	36.8	124
Medium (6-10 members)	35.1	405	11.8	405	0.29	33.6	134
Large (11+ members)	^	16	^	16	^	^	7
Household educational attainment[b]							
No education	29.8	389	12.2	389	0.31	40.9	93
Less than primary	33.6	249	10.5	249	0.26	31.3	68
Primary	25.7	428	8.2	428	0.30	32.0	94
Secondary or more	9.6	94	2.7	94	^	^	10

^ Results not statistically reliable, n<30.

[1] The national extreme poverty line is also the food poverty line. This poverty threshold was established by the KNBS in a report of the Kenya Integrated Household Budget Survey – 2005/06 (KNBS 2007). The national extreme poverty line is defined separately for rural and urban areas. Rural households are considered extremely impoverished if the household falls below 988 Kshs per month per adult equivalent. Urban households are considered to be impoverished if the household falls below 1,474 Kshs per month per adult equivalent. The national poverty threshold methodology is further described in Appendix 2.2

[2] The poverty prevalence is the percentage of individuals living below the national extreme poverty line. Poverty prevalence is sometimes referred to as the poverty incidence or poverty headcount ratio.

[3] The depth of poverty, or poverty gap, is the average consumption shortfall multiplied by the prevalence of poverty.

[4] The average consumption shortfall of the poor is the average amount below the poverty threshold of a person in poverty. This value is estimated only among individuals living in households that fall below the poverty threshold.

[5] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[a-c] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between prevalence of poverty and gendered household type. When an association between the column indicator and row variable is found to be significant ($p<0.05$), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

The national "extreme" poverty line used in this analysis is the food poverty line developed in conjunction with the national absolute poverty line. The food poverty line is the minimum amount required to provide a minimum caloric intake. The food poverty lines are 988 and 1,474 Kshs (2005 prices) per month per adult equivalent in rural and urban areas, respectively.[42]

[42] KNBS. (2007a). pp. 26-27.

These thresholds in 2005 PPP are $30.23 (rural) and $45.10 (urban). The *average,*[43] national extreme poverty thresholds per person per day are 25 and 38 Kshs in 2005 prices ($0.75/$1.17 2005 PPP) in rural and urban areas, respectively.

Poverty lines created in *adult equivalents* are not neatly comparable to poverty lines defined in *per capita* terms. Poverty thresholds defined in adult equivalents vary based on one's age and sex whereas per capita thresholds do not vary based on age and sex. The difference between *adult equivalents* and *per capita* thresholds are further discussed in Appendix 2.2.

Over one quarter (27.5 percent) of individuals in the ZOI live below the extreme food poverty threshold. These individuals do not have access to enough resources to meet daily caloric requirements.

Similar significant relationships displayed in Tables 4.2 and 4.3 can be found in Table 4.4. There is a significant difference in the poverty prevalence among different household sizes. Larger households have higher levels of poverty than smaller households. There are also significant differences in the depth of poverty among the categories of household size and educational attainment. Larger households have greater depth of poverty than smaller households. Households with the greatest level of educational attainment (secondary or more) have lower depth of poverty than households with lower levels of education.

[43] These averages are based on the sample of 1,160 households included in the ZOI analysis.

5. Women's Empowerment in Agriculture

While women play a prominent role in agriculture, they face persistent economic and social constraints. Because of this, women's empowerment is a main focus of Feed the Future. Empowering women is particularly important to achieving the Feed the Future objectives of inclusive agriculture sector growth and improved nutritional status. The WEAI was developed to track the change in women's empowerment that occurs as a direct or indirect result of interventions under Feed the Future and as a programming tool to identify and address the constraints that limit women's full engagement in the agriculture sector.[44] For more information, the WEAI questionnaires and manual can be found online.[45]

5.1 Overview

The WEAI measures empowerment in five domains. The *Production* domain assesses the ability of individuals to provide input and autonomously make decisions about agricultural production. The *Resources* domain reflects individuals' control over and access to productive resources. The *Income* domain monitors individuals' ability to direct the financial resources derived from agricultural production or other sources. The *Leadership* domain reflects individuals' social capital and comfort speaking in public within their community. The *Time* domain reflects individuals' workload and satisfaction with leisure time. The WEAI aggregates information collected for each of the five domains into a single empowerment indicator.

The index is composed of two subindices: The Five Domains of Empowerment (5DE) subindex, which measures the empowerment of women in the five empowerment domains, and the Gender Parity Index (GPI), which measures the relative empowerment of men and women within the household. The WEAI questionnaire is asked of the primary adult male and female decisionmaker in each household and compares the 5DE profiles of women and men in the same household. The primary adult decisionmakers are individuals age 18 or older who are self-identified as the primary male or female decisionmaker during the collection of the household roster.[46] The WEAI score is computed as a weighted sum of the ZOI-level 5DE and the GPI.

The ZOI interim survey, however, only collects data for nine of the 10 indicators and only for the primary adult *female* decisionmakers, not for primary adult *male* decisionmakers, within sampled households. The data collected during the 2015 interim survey allow calculation of nine of the 10 individual empowerment indicators for primary adult female decisionmakers (referred to hereafter as *surveyed women*), enabling Feed the Future to assess change to the individual

[44] Alkire, Malapit, Meinzen-Dick, Peterman, Quisumbing, Seymour, and Vaz. (2013).
[45] IFPRI. (2013). http://feedthefuture.gov/lp/womens-empowerment-agriculture-index.
[46] The respondents of the WEAI questionnaire are only the primary decisionmakers in the household and, therefore, may not be representative of the entire female and male populations in the surveyed area.

indicators or constraints that are affecting women's empowerment in countries' ZOIs. This section presents findings on these nine empowerment indicators.

Since data were not collected from men and the *Autonomy in Production* indicator is excluded, the WEAI score cannot be calculated for the interim assessment. Interim WEAI data collection was streamlined to reduce the overall length of the WEAI module and survey questionnaire, and to address concerns over the validity of the *Autonomy in Production* sub-module used in the baseline surveys. Feed the Future is still working with partners to revise the *Autonomy in Production* sub-module. Data to calculate the full WEAI will be collected during the 2017 interim survey.

Table 5.1 presents the five empowerment domains, their definitions under the WEAI, the corresponding 10 indicators, and the percentage of women who achieve adequacy in the nine indicators assessed in the ZOI interim survey. Because it was not possible to calculate whether a woman is empowered or not based on the complete set of indicators that comprises the 5DE, the percentages presented in Table 5.1 reflect the proportion of all surveyed women with adequacy in individual indicators regardless of their empowerment status (i.e., the uncensored headcount) and not the proportion of surveyed women who are disempowered and achieve adequacy in individual indicators (i.e., the censored headcount).[47]

Among surveyed women in the northern Kenya ZOI, the 5DE indicators with the highest uncensored (or "raw") headcounts (i.e., the greatest achievement of adequacy) are (1) workload (81.7 percent), (2) control over the use of income (76.6 percent), and (3) satisfaction with leisure time (69.2 percent). The 5DE indicators with the lowest levels of achievement are (1) access to and decisions on credit (1.8 percent), (2) group membership (27.0 percent), and (3) purchase, sale or transfer of assets (39.5 percent).

The tables and text in the remainder of Section 5 present further description of the individual components of these 5DE indicators.

[47] See Appendix 2.3 for the criteria for achieving adequacy in each WEAI indicator.

Table 5.1. Achievement of adequacy on Women's Empowerment in Agriculture Index indicators[1]

Domain	Definition of domain	Indicators	Percent with adequate achievement	n
Production	Sole or joint decisionmaking over food and cash crop farming, livestock, and fisheries, and autonomy in agricultural production	Input in productive decisions	51.0	717
		Autonomy in production	n/a	n/a
Resources	Ownership, access to, and decisionmaking power over productive resources such as land, livestock, agricultural equipment, consumer durables, and credit	Ownership of assets	52.9	717
		Purchase, sale or transfer of assets	39.5	717
		Access to and decisions on credit	1.8	717
Income	Sole or joint control over income and expenditures	Control over use of income	76.6	717
Leadership	Membership in economic or social groups and comfort in speaking in public	Group member	27.0	717
		Speaking in public	41.2	717
Time	Allocation of time to productive and domestic tasks and satisfaction with the available time for leisure activities	Workload	81.7	717
		Leisure	69.2	717

[1] The ZOI interim survey includes an abridged version of the empowerment instrument, and the ZOI interim survey did not include information to measure women's autonomy in agricultural production. Due to this omission, censored headcounts and the 5DE cannot be calculated.

n/a – Data for this empowerment indicator were not collected for the ZOI interim surveys.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

5.2 Production

Table 5.2 presents economic activities (including agricultural activities) among surveyed women. This table presents the percentage of surveyed women who are involved in agricultural activities (food crop farming, cash crop farming, livestock raising, or fishing), non-farm economic activities, and wage or salaried employment. This table also presents the percentage of women who have input into the decisions made regarding a specific activity.

The majority of surveyed women (72.3 percent) in the northern Kenya ZOI report participating in a productive activity, and, of them, most (87.0 percent) report having input into the decisions made about the activities. Livestock raising is the activity with the highest participation, at 59.6 percent of surveyed women in the ZOI. In addition to livestock raising, smaller percentages of women report non-farm economic activities (17.5 percent) and food crop farming (12.2 percent). Examples of non-farm economic activities include running a small business, self-employment, buy-and-sell (trading), etc. Economic activities with very low participation in the ZOI include fishing or fishpond culture (0.7 percent) and cash crop farming (2.6 percent).

Among women who participate in the specific economic activities shown in Table 5.2, they report fairly high levels of input into decisions regarding the activity. For each respective economic activity (for which there is sufficient sample size), generally more than 80 percent of women report having input into decisionmaking. The exception is wage or salaried employment. Among the 6.3 percent of women who report this economic activity (a relatively rare economic activity among women in the ZOI), just under three-quarters (74.3 percent) report having input into decisionmaking about their paid work.

Table 5.2. Economic activities and input in decisionmaking on production among surveyed women

Activity	Participates in activity		Has input[1] into decisions about activity	
	Percent	n[2]	Percent	n[1,3]
Total (All surveyed women)	72.3	717	87.0	525
Type of activity				
Food crop farming	12.2	717	81.3	96
Cash crop farming	2.6	717	^	29
Livestock raising	59.6	717	89.1	443
Fishing or fishpond culture	0.7	717	^	3
Non-farm economic activities	17.5	717	83.1	100
Wage or salaried employment	6.3	717	74.3	42

^ Results not statistically reliable, n<30.

[1] *Having input* means that a woman reported having input into most or all decisions regarding the activity.

[2] Estimates exclude households who have no primary adult female decisionmaker or whose data are missing/incomplete.

[3] Women who do not participate in an activity or report that no decision was made are excluded from these percentages.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Table 5.3 shows the percentage of surveyed women who have input into the decisions made regarding the use of income derived from an activity. Nearly all women (92.4 percent) report having input into the use of income generated from the economic activities in which they participate. Of the specific activities for which there is sufficient sample size, over 80 percent of women report having input in the use of income from livestock raising (87.4 percent), non-farm economic activities (87.1 percent), and food crop farming (84.1 percent). This is followed closely by wage or salaried employment; 79.1 percent of women participating in this activity (a relatively uncommon activity in the ZOI, as shown in Table 5.2) report having input into the use of income from their paid work.

Table 5.3. Input in decisionmaking on use of income among surveyed women

Activity	Has input[1] into use of income from activity	
	Percent	n[2,3]
Total (All surveyed women)	92.4	527
Type of activity		
Food crop farming	84.1	97
Cash crop farming	^	28
Livestock raising	87.4	447
Fishing or fishpond culture	^	3
Non-farm economic activities	87.1	97
Wage or salaried employment	79.1	43

^ Results not statistically reliable, n<30.

[1] *Having input* means that a woman reported having input into most or all decisions regarding the use of income generated from the activity.

[2] Estimates exclude households who have no primary adult female decisionmaker or whose data are missing/incomplete.

[3] Women who do not participate in an activity or report that no decision was made are excluded from these percentages.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

In addition to the decisionmaking of women on broad agricultural and economic activities, the WEAI module collects information on the extent to which women can contribute to specific agricultural and economic activities. **Table 5.4** presents the percent distribution of surveyed women's perceived ability to contribute to decisions regarding various activities. The row percentages total to 100 percent.

Table 5.4. Decisionmaking on production among surveyed women

Activity	Extent to which respondents feel they can make their own decisions (percent)[1,2]				Not applicable[3]	n
	Not at all	Small extent	Medium extent	High extent		
Getting inputs for agricultural production	1.7	15.7	8.9	14.2	59.5	717
The types of crops to grow	1.7	13.5	8.6	13.1	63.1	717
Whether to take crops to the market	3.1	11.7	6.0	13.0	66.1	716
Livestock raising	3.9	28.4	30.4	26.8	10.6	715
Her own wage or salary employment	1.1	13.7	8.7	19.8	56.6	716
Major household expenditures	1.3	15.0	8.2	16.3	59.1	716
Minor household expenditures	1.4	19.6	16.9	54.9	7.2	715

[1] Estimates exclude households that have no primary adult female decisionmaker or whose data are missing or incomplete. Women who do not participate in an activity, or who report that no decision was made, are excluded from these percentages.

[2] When a primary adult female decisionmaker reports that she alone makes decisions about the specified activities, she is not asked any further questions, and is categorized during analysis as making her own decisions "to a high extent." When she reports making decisions about the specified activities in conjunction with other individuals, she is asked an additional question about the extent to which she feels she could make her own personal decisions on the specified matters, with possible response options being "not at all," "to a small extent," "to a medium extent," or "to a high extent." Responses are recoded accordingly.

[3] This category includes respondents who report participating in the activity, but say that making the specified decision is not applicable to their situation.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Across the various activities shown in Table 5.4, the activity with the highest percentage of women reporting that they have no decisionmaking ability at all is with respect to livestock raising; 3.9 percent of women report having no decisionmaking ability in this area. However, it is noteworthy that across the seven productive activities in Table 5.4, less than 5 percent of women report having no decisionmaking ability at all; in other words, across these seven activities for which decisions were made, women rarely report that they have no decisionmaking ability at all.

The most common activity about which women report their ability to make decisions to a high extent is minor household expenditures (54.9 percent). Just over half of women report that they can make decisions to a high extent about minor household expenditures such as food for daily consumption or other household needs. It is also noteworthy that, of the seven activities in Table 5.4 for which decisions were made, minor household expenditures is the only productive activity in which more than half of surveyed women report the ability to contribute to decisions to a high extent. With the exception of minor household expenditures and livestock raising, the largest percentages shown in Table 5.4 are in the "not applicable" column, revealing that women in the ZOI interim survey in northern Kenya often reported that decisionmaking regarding an activity was not applicable to their specific situation.

Tables 5.2, 5.3, and 5.4 present information contributing to two indicators of the WEAI. *Input into productive decisions*, one indicator of the *Production* domain, is measured by the extent to which individuals make decisions or feel they can make decisions on the economic activities listed in the three tables. The *Income* domain is comprised entirely of a single indicator measuring the control over use of income. This indicator captures individuals' ability to make decisions involving the income generated from their productive activity or the extent to which they feel they can make decisions regarding household expenditure and wage income.

5.3 Productive Resources

One of the 10 indicators of the WEAI is the ownership of productive resources. The ability of women to make decisions on the use of productive resources is a second indicator of the *Resource* domain. **Table 5.5** presents households' ownership of productive resources, as reported by surveyed women. Table 5.5 also presents the percentage of women who can make a decision to purchase or sell, give away, or rent owned items. Women are counted as having the ability to make a decision if they can solely make a decision or if they can make these decisions with others with any degree of input.

Table 5.5. Household ownership and surveyed women's control over productive resources

Type of resource	Someone in the household owns item		Woman can decide to purchase items		Woman can decide to sell/give/rent owned items	
	Percent	n[1]	Percent	n[1]	Percent	n[1]
Agricultural land	9.8	717	42.3	83	47.9	86
Large livestock	38.7	715	39.4	352	42.8	360
Small livestock	67.4	716	41.1	493	47.7	511
Chickens, ducks, turkeys, and pigeons	10.3	717	85.2	92	85.7	93
Fish pond or fishing equipment	0.6	716	^	2	^	2
Non-mechanized farm equipment	4.3	716	37.8	35	50.4	36
Mechanized farm equipment	0.0	717	^	1	^	1
Non-farm business equipment	1.9	716	n/a		n/a	
House or other structures	9.4	716	n/a		n/a	
Large consumer durables	6.4	717	n/a		n/a	
Small consumer durables	13.4	715	n/a		n/a	
Cell phone	41.3	712	n/a		n/a	
Non-agricultural land	4.9	717	n/a		n/a	
Means of transportation	3.5	715	n/a		n/a	

^ Results not statistically reliable, n<30.

[1] Estimates exclude households that have no primary adult female decisionmaker or in which Module G data are missing/incomplete. Those who indicate "Not applicable" are excluded from estimates.

n/a – Questions regarding who can decide to purchase, sell, give or rent the item were not included in the ZOI interim surveys.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Of the 14 productive resources included in the WEAI module of the ZOI interim survey, those most commonly owned by sampled households (technically only the subsample of ZOI households with a primary adult female decisionmaker) include small livestock such as goats, pigs or sheep (67.4 percent), cell phones (41.3 percent), and large livestock such as cattle, camels or donkeys (38.7 percent). The least commonly owned resources include mechanized farm equipment such as a tractor-drawn plow (0.0 percent, virtually no households in the ZOI), fish pond or fishing equipment (0.6 percent), and non-farm business equipment such as solar panels (used for recharging), sewing machines, brewing equipment, etc. (1.9 percent).

For the first seven resources shown in Table 5.5, women were asked the extent of their decisionmaking ability to purchase (the middle set of columns), or sell (the third set of columns), give away, or rent the specific owned item. Of the resources with sufficient sample size, the purchase of poultry/fowl (chickens, ducks, turkeys, pigeons, or other birds) was the item with the greatest percentage of women's decisionmaking, at 85.2 percent of women in households who owned this item. This was followed distantly by the purchase of agricultural land, at 42.3 percent of women. Among women who report decisionmaking over selling, giving

away, or renting the owned resources, the items with the highest percentages on this measure (of those items with a sufficient sample size) were poultry/fowl (85.7 percent), and non-mechanized farm equipment such hand tools or an ox plow (50.4 percent).

Table 5.6 shows the third indicator of the *Resources* domain, access to, and decisionmaking on credit. The table presents the percent of surveyed women who report that a member of the household has in the past 12 months received any loan, either an in-kind loan (such as food items or raw materials), or a cash loan. These categories are not mutually exclusive. Further, for women living in households where a household member has received a loan, the table presents the percentage who report having contributed to the decision to take the loan and the subsequent decisions on how to use the loan. These figures are disaggregated by the source of the loan.

Table 5.6. Credit access among surveyed women

Estimate	Any source (percent)	Credit source (percent)[1]				
		Non-governmental organization	Informal lender	Formal lender	Friends or relatives	Group-based micro-finance
Total receiving a loan (All surveyed women)	2.8	0.3	0.5	0.6	1.4	0.8
Type of loan						
Any loan	2.8	0.3	0.5	0.6	1.4	0.8
In-kind loan	0.2	0.1	0.0	0.0	0.1	0.1
Cash loan	2.7	0.2	0.5	0.6	1.3	0.8
n[2]	**717**	**714**	**717**	**715**	**716**	**717**
Total contributing to a credit decision (All surveyed women)	66.1	^	^	^	^	^
Type of decisions						
On whether to borrow	55.2	^	^	^	^	^
On how to use loan	66.1	^	^	^	^	^
n[2]	**30**	**5**	**4**	**7**	**13**	**8**

^ Results not statistically reliable, n<30.

[1] Percentages sum to more than 100 because loans may have been received from more than one source.

[2] Estimates exclude households that have no primary adult female decisionmaker or whose data are missing/incomplete.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

In the northern Kenya ZOI, very few households (2.8 percent) represented in the WEAI module report a household member receiving any kind of loan in the prior year, and the most common credit source overall (of the five possible sources) is friends or relatives (1.4 percent). When examining type of loans, the most common type is cash loans; 2.7 percent of households received a cash loan while only 0.2 percent received an in-kind loan in the prior 12 months. The most common lending source for cash loans is friends or relatives (1.3 percent).

Among the very small subsample of women living in households that received a loan in the prior year (n=30), the bottom half of Table 5.6 presents the percentages who report having contributed to two different decisions surrounding the loan: (1) the decision on whether to borrow and (2) the decision on how to use the loan (what to do with the money or in-kind item loaned). Overall, 66.1 percent of women report contributing to at least one of the credit decisions. Women appear to have slightly higher input into the decision on how to use the loan (66.1 percent) than the decision on whether to take the loan (55.2 percent). Given the relative rarity of loans in the northern Kenya ZOI in the prior year, the disaggregated values for women's decisionmaking by the specific credit source in the lower portion of Table 5.6 are suppressed (n<30).

5.4 Leadership in the Community

The *Leadership* domain measures an individual's influence and involvement with community organizations and issues impacting her community. The first indicator of the domain is an individual's ease of speaking in public, which is measured by three questions related to the level of difficulty an individual faces when voicing her opinion regarding community decisions. On this indicator, 41.2 percent of surveyed women in the ZOI achieves adequacy in voicing her opinions on community matters (**Table 5.7**).

When looking at the three individual topics for public discussion asked about in the ZOI interim survey, the percentages of surveyed women who are comfortable speaking in public about each of the topics is similar, at just over one-third of surveyed women. About 37.1 percent of women report being comfortable speaking up in public regarding infrastructure decisions (e.g., small wells, roads and water supplies). This is followed closely by speaking up in public to protest the misbehavior of authorities or elected officials (35.1 percent of women feel comfortable), and speaking up in public to ensure proper payment of wages for public works or similar programs (34.2 percent).

Table 5.7. Comfort with speaking in public among surveyed women

Topics for public discussion	Percent	n[1]
	Comfortable speaking in public about selected topics	
Total (All surveyed women)	41.2	717
Topics		
To help decide on infrastructure to be built in the community	37.1	699
To ensure proper payment of wages for public works or other similar programs	34.2	665
To protest the misbehavior of authorities or elected officials	35.1	684

[1] Estimates exclude households that have no primary adult female decisionmaker or whose data are missing/incomplete.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

The second indicator of the *Leadership* domain is an individual's participation in a community organization. **Table 5.8** shows the percentage of surveyed women who are active members of the organization.

Table 5.8. Group membership among surveyed women

Group type	Percent[1]	n[2]
	Is an active group member	
Total (All surveyed women)	27.0	717
Group type		
Agricultural/livestock producers'	4.7	717
Water users'	4.2	717
Forest users'	1.0	717
Credit or microfinance	4.0	716
Mutual help or insurance	0.7	717
Trade and business association	2.3	717
Civic or charitable	1.4	717
Local government	3.6	716
Religious	18.1	716
Youth	2.5	716
Education	2.3	717
Other	5.2	716

[1] The denominator for this percentage includes all surveyed women, even those who reported that no group exists or that she is unaware of the existence of a group in her community. Women who report that no group exists or who are unaware of a group are counted as having inadequate achievement of this indicator.

[2] Estimates exclude households that have no primary adult female decisionmaker or whose data are missing/incomplete.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

In the northern Kenya ZOI, just over one-quarter (27.0 percent) of surveyed women report membership in at least one group. (This is also the uncensored headcount for this indicator; 27.0 percent of women are adequate on the group membership indicator, also shown in Table 5.1.) The group type in the ZOI with the highest participation is religious groups, at 18.1 percent of women. Other group types in the ZOI with active participation among

surveyed women include agricultural or livestock producers' groups (including marketing groups) (4.7 percent), water users' groups (4.2 percent), and "other" groups (5.2 percent).

5.5 Time Use

The last domain of the WEAI is time use. This domain assesses women's workload as directly measured through a time allocation log, as well as the satisfaction felt by the surveyed woman with her leisure time. **Table 5.9** shows the percentage distribution and average hours spent participating in various activities and chores that women often perform. The percentage of women performing an activity indicates the percentage of women who reported doing an activity within the past 24 hours, irrespective of the length of time spent performing the activity. The average hours spent performing an activity is the average across all women, assigning zero hours to women who did not perform an activity. Both primary and secondary activities are presented in Table 5.9. In the ZOI, 69.2 percent of women reported being satisfied with their leisure time.

Table 5.9. Time allocation among surveyed women

Activity	Primary activity		Secondary activity[1]	
	Percent of women	Mean hours devoted	Percent of women	Mean hours devoted
Sleeping and resting	100.0	10.7	4.8	0.0
Eating and drinking	98.6	1.9	3.0	0.0
Personal care	71.0	0.8	2.3	0.0
School and homework	3.2	0.0	0.2	0.0
Work as employed	9.0	0.3	0.0	0.0
Own business work	25.1	0.9	0.8	0.0
Farming/livestock/fishing	36.8	1.1	0.8	0.0
Shopping/getting services	20.0	0.2	0.3	0.0
Weaving, sewing, textile care	8.9	0.3	0.3	0.0
Cooking	96.0	2.4	2.8	0.0
Domestic work (fetching food and water)	81.2	1.9	2.0	0.0
Care for children/adults/elderly	48.3	0.8	2.9	0.0
Travel and commuting	19.0	0.3	0.3	0.0
Watching TV/listening to radio/reading	10.8	0.2	1.5	0.0
Exercising	1.5	0.0	0.0	0.0
Social activities and hobbies	52.8	0.8	3.5	0.0
Religious activities	57.9	1.2	1.6	0.0
Other	4.8	0.1	0.7	0.0
n	**717**	**717**	**717**	**717**

[1] Respondents were allowed to report up to two activities per time use increment (15 minutes) in the prior 24 hours. If two activities were reported, one was designated as a primary and the second as a secondary activity. Some women may not have reported secondary activities for each 15-minute period.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Of all the activities reported in Table 5.9, the most commonly reported primary activities among primary adult female decisionmakers in the ZOI include sleeping and resting (100.0 percent of women, mean 10.7 hours), eating and drinking (98.6 percent, mean 1.9 hours), and cooking (96.0 percent, mean 2.4 hours). Least common activities include exercising (only reported by 1.5 percent of women), school and homework (3.2 percent), and "other" (4.8 percent). Beyond activities of daily life such as sleeping and eating, other common work activities (in addition to cooking) include domestic work such as fetching food or water (81.2 percent), and caregiving for children or other adults or elderly (48.3 percent). In the northern Kenya ZOI interim survey, very few women reported any one secondary activity, and because women who do not engage in an activity as a secondary activity are included in the average amount of time as a zero, the average is very small and rounds to zero. The most commonly reported secondary activity is sleeping and resting (4.8 percent of women).

6. Hunger and Dietary Intake

This section presents findings related to hunger in the ZOI as well as women's and young children's dietary intake.

6.1 Household Hunger

The Household Hunger Scale (HHS) is used to calculate the prevalence of households in the northern Kenya ZOI experiencing moderate or severe hunger. The HHS was developed by the USAID-funded Food and Nutrition Technical Assistance II Project (FANTA-2/FHI 360) in collaboration with the United Nations Food and Agriculture Organization. It has been cross-culturally validated to allow comparison across different food-insecure contexts. The HHS is used to assess, geographically target, monitor, and evaluate settings affected by substantial food insecurity. The HHS is used to estimate the percentage of households affected by three different severities of household hunger: Little to no household hunger (HHS score 0-1); moderate household hunger (HHS score 2-3); and severe household hunger (HHS score 4-6). The HHS should be measured at the same time each year, and ideally at the most vulnerable time of year (right before the harvest, during the dry season, etc.).[48,49]

The hunger (lean) season in northern Kenya occurs from August through November. Data for the HHS were collected in the ZOI interim survey from May through June 2015, which overlapped with the rainy season. Neither the baseline nor the interim surveys took place during the hunger season. The baseline took place in January-February. It was timed to match data collection with other FTF FEEDBACK surveys and to take place before Kenya's national elections. The interim was initially planned to take place at the same time as the baseline and as a similar survey in the southern ZOI. However, a series of events delayed the start of fieldwork.

Table 6.1 presents estimates of household hunger for all households, as well as by household characteristics, including gendered household type, household size, and household educational attainment.

More than half of the households in the northern Kenya ZOI (61.6 percent) report that they experience no or little hunger. However, a substantial number (30.2 percent) experience moderate hunger, and an additional 8.1 percent experience severe hunger. As shown in the Feed the Future ZOI indicator estimates table (on pages xiv-xvi) in the Executive Summary as well as the Appendix), over one-third of ZOI households (about 38.4 percent) experience moderate or severe hunger, which is the Feed the Future standard indicator.

[48] Deitchler, Ballard, Swindale, and Coates (2011).

[49] For further description of the household hunger indicator and its calculation, refer to the Feed the Future Indicator Handbook, available at http://feedthefuture.gov/resource/feed-future-handbook-indicator-definitions.

Table 6.1. Household hunger

Characteristic	Percent			n[1]
	Little to no hunger[a]	Moderate hunger	Severe hunger	
Total (All households)	61.6	30.2	8.1	1,177
Gendered household type[a]				
Male and female adults	64.8	29.1	6.1	844
Female adult(s) only	46.5	37.2	16.3	232
Male adult(s) only	72.8	23.0	4.2	101
Child(ren) only (no adults)	-	-	-	0
Household size				
Small (1-5 members)	62.0	29.5	8.5	751
Medium (6-10 members)	60.5	31.8	7.7	410
Large (11+ members)	^	^	^	16
Household educational attainment[a]				
No education	48.1	38.3	13.6	399
Less than primary	58.2	32.5	9.3	252
Primary	74.5	22.5	3.0	430
Secondary or more	82.3	17.7	0.0	96

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample size may not total to the aggregated sample size.

[a] Significance tests were performed for associations between little to no hunger and household characteristics, which is equivalent to testing the association between moderate to severe hunger and household characteristics. For example, a test was done between little to no hunger and gendered household type. When differences were found to be significant ($p<0.05$), the superscript is noted next to the household characteristic.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Significance tests were performed for relationships between little to no hunger and household characteristics; this is equivalent to a significance test for moderate and severe hunger combined and each respective household characteristic. Experiencing little to no hunger is significantly associated with both gendered household type as well as household educational attainment. Relative to other household types, female adult-only households report the lowest prevalence of experiencing little to no hunger, at 46.5 percent, which corresponds to the highest levels of moderate (37.2 percent) and severe (16.3 percent) hunger.

With respect to education, Table 6.1 shows that with increasing levels of household education the prevalence of household hunger declines. Among households whose members have no education, just under half (48.1 percent) report little to no hunger, whereas among households with secondary or more education, 82.3 percent report little to no hunger.

6.2 Dietary Intake

This section presents information on the dietary diversity of women of reproductive age and on infant and young child feeding in the ZOI.

6.2.1 Dietary Diversity among Women Age 15-49 Years

Women of reproductive age (15-49 years) are at risk of multiple micronutrient deficiencies, which can jeopardize their health and their ability to care for their children and participate in income-generating activities (Darnton-Hill et al. 2005). The Feed the Future women's dietary diversity indicator is a proxy for the micronutrient adequacy of women's diets. The dietary diversity indicator reports the mean number of food groups consumed in the previous day by women of reproductive age.

For the ZOI interim survey, two dietary diversity indicators for women are calculated: The Women's Dietary Diversity Score (WDDS) and Women's Minimum Dietary Diversity (MDD-W).

Women's Dietary Diversity Score

The Feed the Future women's dietary diversity indicator, presented in Table 6.2, is based on nine food groups: (1) grains, roots, and tubers; (2) legumes and nuts; (3) dairy products; (4) organ meat; (5) eggs; (6) flesh food and small animal protein; (7) vitamin A-rich dark green leafy vegetables; (8) other vitamin A-rich vegetables and fruits; and (9) other fruits and vegetables. The number of food groups consumed in the prior 24 hours is averaged across all women of reproductive age in the sample for whom dietary diversity data were collected to produce a WDDS.

Table 6.2 shows the mean and median WDDS for all women of reproductive age in the ZOI, and by individual-level and household-level characteristics. Mean WDDS is the Feed the Future high-level indicator. Individual-level characteristics include women's age groups and educational attainment. Household-level characteristics include categories of gendered household type, household size, and household hunger.

In the northern Kenya ZOI, the WDDS indicator value is 3.37; in other words, women consume an average of 3.37 food groups of the nine possible groups. The median value is three food groups. Mean WDDS varies significantly by women's education, gendered household type, household size, and household hunger status.

As shown in Table 6.2, mean WDDS values increase with increasing levels of education. Women with no education consume an average of 2.95 food groups, whereas women with completed primary education consume, on average, 4.21 food groups. (Note that the sample of 27 women of reproductive age [WRA] with secondary or more education is too small [n<30] to calculate reliable estimates.)

In addition to the significant association with education, WDDS scores vary significantly by gendered household type. Women in male and female adult households consume an average of 3.50 food groups, while women in female adult-only households consume 2.81 food groups.

Table 6.2. Women's dietary diversity score

Characteristic	Mean[a]	Median	n[l]
Total (All women 15-49)	3.37	3	951
Age			
15-19	3.64	3	146
20-24	3.62	3	183
25-29	3.25	3	207
30-34	3.08	3	147
35-39	3.32	3	140
40-44	3.46	3	71
45-49	2.93	3	57
Educational attainment[a]			
No education	2.95	3	636
Less than primary	3.99	3	83
Primary	4.21	4	204
Secondary or more	^	^	27
Gendered household type[a]			
Male and female adults	3.50	3	781
Female adult(s) only	2.81	2	164
Male adult(s) only	^	^	6
Child(ren) only (no adults)	-	-	0
Household size[a]			
Small (1-5 members)	3.17	3	493
Medium (6-10 members)	3.43	3	427
Large (11+ members)	5.58	6	31
Household hunger[a]			
Little to no hunger	3.90	4	600
Moderate or severe hunger	2.48	2	342

^ Results not statistically reliable, n<30.

[l] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[a] Significance tests were performed for associations between mean women's dietary diversity score and individual/household characteristics. For example, a test was done between mean women's dietary diversity score and age. When an association is found to be significant ($p<0.05$), the superscript is noted next to the characteristic.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Household size is also significantly associated with this indicator; women in the largest household size category (those households with 11 or more members) consume, on average, 5.58 food groups, compared to women in the smallest household size category (1-5 members), at 3.17 food groups. Finally, Table 6.2 also reveals that mean WDDS varies significantly by household hunger status. Women in households experiencing little to no hunger consume an average of 3.90 food groups, compared to women in households with moderate or severe hunger, at 2.48 food groups.

Women's Minimum Dietary Diversity

The Feed the Future MDD-W indicator is a new measure introduced in the interim assessments and uses the following 10 food groups: (1) grains, roots, and tubers; (2) legumes and beans; (3) nuts and seeds; (4) dairy products; (5) eggs; (6) flesh foods, including organ meat and miscellaneous small animal protein; (7) vitamin A-rich dark green leafy vegetables; (8) other vitamin A-rich vegetables and fruits; (9) other fruits; and (10) other vegetables.[50] Achievement of MDD-W is defined as having consumed foods from five of the 10 food groups in the past 24 hours. Thus this indicator is a dichotomous variable, and the measure is reported as the percentage of women who achieve a minimum dietary diversity.[51]

Table 6.3 shows the percentage of all women of reproductive age in the ZOI who have achieved the minimum dietary diversity threshold by individual-level and household-level characteristics. Individual-level characteristics include women's age groups and educational attainment. Household-level characteristics include categories of gendered household type, household size, and household hunger.

[50] The differences between the nine food groups used for the WDDS (Table 6.2), which is the current standard Feed the Future indicator, and the 10 food groups used for the new MDD-W measure (Table 6.3) include: (1) legumes and beans are separated from nuts and seeds; (2) meat (flesh foods) and organ meat are combined into one group; and (3) other fruits and other vegetables are separated into two groups.

[51] For more information, refer to Volume 11: Guidance on the First Interim Assessment of the Feed the Future Zone of Influence Population-Level Indicators (October 2014), Section 4.2, available for download at http://www.feedthefuture.gov/sites/default/files/resource/files/ftf_guidanceseries_vol11_interimassessment_oct2014.pdf.

Table 6.3. Women's minimum dietary diversity (consumed five food groups or more)

Characteristic	Percent[a]	n[1]
Total (All women 15-49)	**22.5**	**951**
Age		
15-19	29.7	146
20-24	24.9	183
25-29	17.9	207
30-34	21.4	147
35-39	23.0	140
40-44	22.6	71
45-49	12.8	57
Educational attainment[a]		
No education	14.1	636
Less than primary	34.4	83
Primary	40.0	204
Secondary or more	^	27
Gendered household type		
Male and female adults	24.3	781
Female adult(s) only	15.0	164
Male adult(s) only	^	6
Child(ren) only (no adults)	-	0
Total (All women 15-49)	22.5	951
Household size[a]		
Small (1-5 members)	19.1	493
Medium (6-10 members)	24.0	427
Large (11+ members)	53.3	31
Household hunger[a]		
Little to no hunger	31.2	600
Moderate or severe hunger	7.8	342

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[a] Significance tests were performed for associations between women's minimum dietary diversity and individual/household characteristics. For example, a test was done between women's minimum dietary diversity and age. When an association is found to be significant ($p<0.05$), the superscript is noted next to the characteristic.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Among women in the northern Kenya ZOI, less than one-quarter (22.5 percent) meet the MDD-W threshold (five food groups). Of the disaggregates presented in Table 6.3, educational attainment, household size, and household hunger are significantly associated with the women's MDD-W indicator. Consistent with the findings for WDDS presented above, Table 6.3 shows that with increasing education, MDD-W prevalence increases. Forty percent of women with primary education in the ZOI achieved an MDD-W, compared to only 14.1 percent of women with no education.

Similarly, as with the findings for WDDS, in Table 6.3 we see that MDD-W prevalence improves with greater household size. Among women living in the largest households (11 or more members), over half (53.3 percent) achieve a minimum dietary diversity. However, fewer than one-fifth (19.1 percent) of women in the smallest household size category (1-5 members) achieve the MDD-W threshold. Finally, household hunger status is also associated with

MDD-W. Only 7.8 percent of women in households experiencing moderate or severe hunger achieve a minimum dietary diversity, compared to 31.2 percent of women in households with little or no hunger.

Table 6.4 shows the percentages of women age 15-49 years who consume each of the 10 food groups by dietary diversity achievement status. The percentages who consume each of the 10 food groups are shown for women who achieve a minimum dietary diversity and for women who do not achieve a minimum dietary diversity.

Among women who do not achieve a minimum dietary diversity, only two food groups – grains, roots, and tubers (90.1 percent), and dairy products (70.1 percent)—are consumed by at least half of the women. For the other eight food groups, the percentage of women consuming each group falls below 31 percent (ranging from 30.9 percent for legumes and beans down to only 1.4 percent for other fruits). Moreover, achievement of a minimum dietary diversity is significantly associated with consumption of each of the 10 specific food groups. A higher percentage of women who achieve a minimum dietary diversity consume each of the 10 food groups, compared to women who do not achieve a minimum dietary diversity.

Table 6.4. Consumption of foods by women's minimum dietary diversity status

Category	Percent of women according to achievement of a minimum dietary diversity[a]	
	Achieving	Not achieving
Women consuming a specific food group		
Grains, roots and tubers[a]	100.0	90.1
Legumes and beans[a]	68.5	30.9
Nuts and seeds[a]	9.9	4.4
Dairy products[a]	87.4	70.1
Meat and organ meats[a]	74.0	28.0
Eggs[a]	48.2	4.9
Vitamin A-rich dark green leafy vegetables[a]	68.7	16.0
Other Vitamin A-rich vegetables and fruits[a]	72.0	7.9
Other fruits[a]	24.3	1.4
Other vegetables[a]	25.8	4.1
n	**182**	**769**

[a] Significance tests were performed for associations between women's achievement of minimum dietary diversity and consumption of a specific food group. For example, a test was done between women's achievement of minimum dietary diversity and consumption of grains, roots, and tubers. When an association is found to be significant ($p<0.05$), a superscript is noted next to the food group.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

6.2.2 Infant and Young Child Feeding

This section presents young children's dietary intake measures, including the Feed the Future indicators of exclusive breastfeeding among babies 0-5 months and the MAD indicator among children 6-23 months.

Exclusive Breastfeeding

Exclusive breastfeeding provides children with significant health and nutrition benefits, including protection from gastrointestinal infections and reduced risk of mortality due to infectious disease. Exclusive breastfeeding means the infant received breast milk (including expressed breast milk or breast milk from a wet nurse) and may have received oral rehydration salts, vitamins, minerals, and/or medicines, but did not receive any other food or liquid. This indicator measures the percentage of children 0-5 months of age who were exclusively breastfed during the day preceding the survey.

Table 6.5 shows the prevalence of exclusive breastfeeding among children 0-5 months in the ZOI. Estimates are shown for all children, as well as by children's sex and the educational attainment of the child's primary caregiver. The caregiver's educational categories include no education, less than primary, completed primary, and completed secondary or more. Note that the data are collected for the self-identified *primary caregiver* and not strictly for the biological mother (although it is often the same person).

Table 6.5. Prevalence of exclusive breastfeeding among children under 6 months

Characteristic	Percent[a]	n[1]
Total (All children under 6 months)	43.4	81
Child sex		
Male	45.2	32
Female	42.1	49
Caregiver's educational attainment[2]		
No education	37.1	54
Less than primary	^	11
Primary	^	11
Secondary or more	^	5

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[2] The ZOI interim survey identifies the primary caregiver of each age-eligible child. This person is likely, but not necessarily, the child's biological mother.

[a] Significance tests were performed for associations between exclusive breastfeeding and child/caregiver characteristics. For example, a test was done between exclusive breastfeeding and the child's sex. When an association is found to be significant ($p<0.05$), the superscript is noted next to the characteristic.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Among all children less than 6 months in the northern Kenya ZOI, 43.4 percent are exclusively breastfed. This value is between the national values reported in the 2008-2009 Kenya Demographic and Health Survey (DHS) and the recent 2014 Kenya DHS. Nationally, the 2008-2009 Kenya DHS shows that about 31.9 percent of children age 0-5 months are exclusively

breastfed.[52] In the 2014 Kenya DHS (for which the full report is not yet available), 61.4 percent of children age 0-5 months are exclusively breastfed.[53,54]

As shown in Table 6.5, there is no significant association between exclusive breastfeeding and child's sex or caregiver's education. It is important to note, however, that the sample size of children 0-5 months is quite small in the ZOI interim survey, at just 81 records.

Minimum Acceptable Diet

The prevalence of children 6-23 months receiving a MAD measures the proportion of young children who receive a MAD apart from breastfeeding. This composite indicator measures both the minimum feeding frequency and minimum dietary diversity based on caregiver reports of the frequency with which the child was fed in the past 24 hours, and what foods were consumed during the past 24 hours. Tabulation of the indicator requires data on children's age in months, breastfeeding status, dietary diversity, number of semi-solid or solid feeds, and number of milk feeds.

Table 6.6 presents the Feed the Future MAD indicator for children in the ZOI. Estimates are shown for all children, as well as by characteristics of the children, caregiver, and household. Children's characteristics include children's sex and age group. Caregivers' characteristics include educational attainment. Household characteristics include gendered household type, size, and hunger.

Very few children (only 3.6 percent) in the northern Kenya ZOI receive a MAD. Significance tests were run for differences in prevalence of MAD by child sex, child age, caregiver's educational attainment, gendered household type, size, and hunger. MAD was found to be significantly associated with caregiver's education and household hunger status. MAD is about nine times higher among children whose caregivers have primary education (13.7 percent) compared to children whose caregivers have no education (1.5 percent). (Note that the MAD estimates for other educational categories are suppressed due to insufficient sample size.)

Similarly, Table 6.6 shows that a MAD is 5.9 percent among children residing in households with little or no hunger, whereas fewer than one percent (0.7 percent) of children in households with moderate or severe hunger obtain a MAD.

[52] KNBS and ICF Macro. (2010). p. 149.
[53] KNBS. (2015). p. 39.
[54] Note that neither of these DHS reports presents children's exclusive breastfeeding indicators by residence (rural/urban).

Table 6.6. Percentage of children age 6-23 months who receive a minimum acceptable diet

Characteristic	Percent[a]	n[1]
Total (All children 6-23 months)	3.6	235
Child sex		
Male	4.8	119
Female	2.4	116
Child age		
6-11 months	6.1	64
12-17 months	3.3	126
18-23 months	0.4	45
Caregiver's educational attainment[2,a]		
No education	1.5	182
Less than primary	^	15
Primary	13.7	34
Secondary or more	^	4
Gendered household type		
Male and female adults	4.1	204
Female adult(s) only	1.1	30
Male adult(s) only	^	1
Child(ren) only (no adults)	-	0
Household size		
Small (1-5 members)	2.5	127
Medium (6-10 members)	5.3	106
Large (11+ members)	^	2
Household hunger[a]		
Little to no hunger	5.9	134
Moderate or severe hunger	0.7	96

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[2] The ZOI interim survey identifies the primary caregiver of each age-eligible child. This person is likely, but not necessarily, the child's biological mother.

[a] Significance tests were performed for associations between children receiving a minimum acceptable diet and child/caregiver/household characteristics. For example, a test was done between children receiving a minimum acceptable diet and child's sex. When an association is found to be significant ($p<0.05$), the superscript is noted next to the characteristic.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Table 6.7 presents the percentage of children achieving the MAD components (e.g., minimum meal frequency, minimum dietary diversity) and consuming each of the food groups of the minimum dietary diversity indicator. Estimates are shown for all children, as well as by specific age groups, and presented separately for breastfed children and non-breastfed children.

Minimum dietary diversity for breastfed children 6-23 months is defined as four or more food groups (of seven food groups: grains, roots, and tubers; legumes and nuts; dairy products; flesh foods [meat, fish, poultry, and liver/organ meats]; eggs; vitamin-A rich fruits and vegetables; and other fruits and vegetables). For non-breastfed children, minimum dietary diversity is defined as four or more food groups of *six* food groups (excluding the dairy group). Minimum meal

frequency for breastfed children is defined as two or more feedings of solid, semi-solid, or soft food for children 6-8 months, and three or more feedings for children 9-23 months. Minimum meal frequency for non-breastfed children is defined as four or more feedings of solid, semi-solid, soft food, or milk feeds for children 6-23 months, and at least two of these feedings must be milk feeds.

Table 6.7. Components of a minimum acceptable diet among children age 6-23 months

MAD components and food groups	Percent			
	All children[a]	By child age (in months)		
		6 to 11	12 to 17	18 to 23
Breastfed children				
Achieving minimum meal frequency	34.8	38.8	34.4	^
Achieving minimum dietary diversity	10.7	5.0	15.1	^
Consuming				
Grains, roots, and tubers	63.9	58.6	65.1	^
Legumes and nuts	15.1	7.8	17.4	^
Dairy products	75.0	65.1	82.2	^
Flesh foods	20.8	16.4	23.4	^
Eggs	0.9	0.2	1.0	^
Vitamin A-rich fruits and vegetables	10.8	9.0	12.5	^
Other fruits and vegetables	2.4	1.0	3.6	^
n	**187**	**58**	**107**	**22**
Non-breastfed children				
Achieving minimum meal frequency	54.6	^	^	^
Achieving minimum milk feeding frequency	52.0	^	^	^
Achieving minimum dietary diversity	5.3	^	^	^
Consuming				
Grains, roots, and tubers	75.1	^	^	^
Legumes and nuts	7.0	^	^	^
Dairy products	75.7	^	^	^
Flesh foods	16.3	^	^	^
Eggs	2.0	^	^	^
Vitamin A-rich fruits and vegetables	20.4	^	^	^
Other fruits and vegetables	7.9	^	^	^
n	**48**	**6**	**19**	**23**

^ Results not statistically reliable, n<30.

[a] Significance tests were performed for associations between MAD components/food groups for breastfed and non-breastfed children. For example, a test was done for achieving minimum meal frequency and breastfeeding status. When an association is found to be significant ($p<0.05$), a superscript is noted next to the breastfed and non-breastfed row headings corresponding to the MAD component/food group.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Table 6.7 reveals that among breastfed children, 34.8 percent receive a minimum meal frequency, but only 10.7 percent achieve a minimum dietary diversity. Among the minority of non-breastfed children age 6-23 months in the ZOI (n=48), 54.6 percent receive a minimum meal frequency, but only 5.3 percent achieve minimum dietary diversity. Non-breastfed children have a further milk feeding requirement for the calculation of the MAD indicator. Over half (52.0 percent) of the non-breastfed children in the ZOI meet the minimum milk feeding frequency requirement.

When examining the individual food groups by breastfeeding status, Table 6.7 shows that the two most common foods for both groups are dairy products (about three-quarters of the children in both groups) and grains, roots and tubers (consumed by 63.9 percent of breastfed children, and 75.1 percent of non-breastfed children). The least common food for both groups is eggs (at 0.9 percent and 2.0 percent for breastfed and non-breastfed children, respectively).

Although estimates in Table 6.7 are also presented by children's age group (6-11, 12-17, and 18-23 months), due to small sample sizes (n<30), many of these estimates are suppressed, particularly for non-breastfed children. Finally, within the full 6-23 month sample of children, significance tests were run for the associations between MAD component variables and breastfeeding status; no statistically significant associations were found.

6.2.3 Consumption of Targeted Nutrient-Rich Value Chain Commodities

U.S. Government-funded programming supports nutrition-sensitive agricultural value chain[55] interventions to achieve the dual purpose of enhancing both economic and nutritional outcomes. The Feed the Future ZOI interim assessment measures the degree to which respondents in the ZOI are consuming targeted nutrient-rich commodities or products made from targeted nutrient-rich commodities being promoted by these value chain activities.

There are three criteria for a food commodity to be considered a targeted NRVCC:

1. Increased production of the commodity must be promoted through a USG-funded value chain activity.

2. The value chain commodity must have been selected for nutrition objectives, in addition to any poverty-reduction or economic-growth related objectives.

3. The commodity must be considered nutrient rich, defined as meeting any one of the following criteria: It is bio-fortified; a legume, nut or seed; an animal-sourced food, including dairy products (milk, yogurt, cheese), eggs, organ meat, flesh foods, and other miscellaneous small animal protein (e.g., grubs, insects); a dark yellow or orange-fleshed root or tuber; or a fruit or vegetable that meets the threshold for being a "high source" of one or more micronutrients on a per 100 gram basis.

[55] From Webber and Labaste. (2010). "Building competitiveness in Africa's agriculture : a guide to value chain concepts and applications," published by The World Bank: "The term 'value chain' describes the full range of value-adding activities required to bring a product or service through the different phases of production, including procurement of raw materials and other inputs, assembly, physical transformation, acquisition of required services such as transport or cooling, and ultimately response to consumer demand (Kaplinsky and Morris [2002], "A Handbook for Value Chain Research," p. 46–47)."

This section presents the ZOI interim assessment's findings on the consumption of targeted NRVCC among women age 15-49 and children age 6-23 months. The targeted commodities in Kenya include eight meat and dairy commodities from four animals (cattle, camels, sheep, and goats). The NRVCC commodities are: beef, camel meat, mutton, goat meat, cow milk, camel milk, sheep milk, and goat milk.

Women's Consumption of Targeted Nutrient-Rich Value Chain Commodities

Table 6.8 presents women's consumption of targeted NRVCC. Estimates are shown for all women age 15-49, as well as by women's individual and household characteristics. Women's individual characteristics include age and educational attainment. Household characteristics include gendered household type, size, and hunger.

As shown in Table 6.8, the majority of women of reproductive age in the northern Kenya ZOI consumed at least one NRVCC item in the prior day; 77.4 percent of women consumed at least one of the eight commodities, with goat milk and cow milk most commonly consumed (38.2 percent and 36.4 percent, respectively). Sheep meat (mutton) and sheep milk were least commonly consumed (2.7 percent and 3.1 percent, respectively) by women of reproductive age in the ZOI.

Among the disaggregates presented in Table 6.8, women's education and household hunger status are significantly associated with consumption of NRVCC foods. Consuming any of the commodities was significantly associated with household hunger status; women in households with little to no hunger were more likely to consume at least one NRVCC than women in households with moderate or severe hunger (86.2 percent versus 62.7 percent). Similarly, household hunger status was also significantly associated with the individual commodities of camel meat, goat meat, cow milk, camel milk, and goat milk, with women in households with little to no hunger more likely to consume those foods than women in households with moderate or severe hunger.

Women's educational attainment was significantly associated with the consumption of beef, goat meat, sheep milk, and goat milk. As shown in Table 6.8, consumption of beef and goat meat appears to increase with greater levels of education, whereas consumption of sheep milk and goat milk is more prevalent among the least educated women.

Table 6.8. Women's consumption of targeted nutrient-rich value chain commodities

Characteristic	Percent									n[1]
	Any targeted commodity[a]	Beef[b]	Camel meat[c]	Mutton[d]	Goat meat[e]	Cow milk[f]	Camel milk[g]	Sheep milk[h]	Goat milk[i]	
Total (All women 15-49)	77.4	4.1	8.0	2.7	24.1	36.4	19.2	3.1	38.2	951
Age										
15-19	84.4	6.5	14.6	1.8	31.9	41.3	18.1	1.4	42.5	146
20-24	80.9	4.7	4.6	2.9	26.0	42.1	17.5	3.1	31.8	183
25-29	68.4	2.6	6.1	2.1	16.9	33.0	20.9	4.0	34.7	207
30-34	77.1	3.8	7.6	3.8	24.1	40.9	21.0	5.4	39.2	147
35-39	78.1	1.8	8.1	4.1	24.4	28.0	18.7	2.6	46.2	140
40-44	83.9	4.9	7.5	3.1	18.5	25.9	16.9	0.4	46.9	71
45-49	69.9	7.6	10.7	0.6	28.8	37.9	20.6	2.8	29.3	57
Educational attainment[b,e,h,i]										
No education	77.8	2.7	7.0	3.1	20.6	32.8	23.0	4.4	45.3	636
Less than primary	69.7	4.5	7.5	5.9	17.7	40.8	14.9	0.3	17.4	83
Primary	78.1	8.6	10.8	0.6	35.2	44.5	11.0	0.2	22.6	204
Secondary or more	^	^	^	^	^	^	^	^	^	27
Gendered household type										
Male and female adults	79.5	4.5	7.3	2.9	24.6	38.0	19.9	3.6	40.0	781
Female adult(s) only	68.2	2.7	10.7	2.1	21.0	29.5	16.1	1.4	30.2	164
Male adult(s) only	^	^	^	^	^	^	^	^	^	6
Child(ren) only (no adults)	-	-	-	-	-	-	-	-	-	0
Household size										
Small (1-5 members)	72.9	4.7	7.7	1.8	19.9	34.9	20.0	3.6	33.6	493
Medium (6-10 members)	82.4	3.7	8.1	4.1	27.9	40.0	19.2	2.8	42.6	427
Large (11+ members)	83.8	0.9	11.5	0.7	39.6	17.8	6.6	0.0	52.7	31
Household hunger[a,c,e,f,g,i]										
Little to no hunger	86.2	5.3	12.6	3.1	30.9	44.1	24.1	3.8	43.4	600
Moderate or severe hunger	62.7	2.1	0.2	2.2	12.7	23.0	11.0	2.0	29.7	342

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[a-i] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between any targeted commodity and the woman's age. When an association between the column indicator and row variable is found to be significant ($p<0.05$), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

Children's Consumption of Targeted Nutrient-Rich Value Chain Commodities

Table 6.9 presents children's consumption of targeted NRVCC. Estimates are shown for all children 6-23 months, as well as by characteristics of the child, caregiver, and household. Children's characteristics include sex and age, and caregivers' characteristics include educational attainment. Household characteristics include gendered household type, size, and hunger.

As shown in Table 6.9, the majority of children age 6-23 months in the northern Kenya ZOI consumed at least one NRVCC item in the prior day; 65.2 percent of children consumed at least one of the eight commodities, with cow milk and goat milk most commonly consumed (36.1 and 30.2 percent, respectively). Similar to the women's findings, sheep milk and mutton were least commonly consumed by children (1.0 and 1.2 percent, respectively).

Among the disaggregates presented in Table 6.9, child's sex, caregiver's education, gendered household type, size, and hunger were significantly associated with children's consumption of NRVCC foods.

Consuming any of the eight commodities was significantly associated with household hunger status; children in households with little to no hunger were more likely to consume at least one NRVCC than children in households with moderate or severe hunger (77.5 versus 48.4 percent, respectively). Similarly, household hunger status was associated with the individual commodities of goat meat, cow milk, and camel milk. Children in households with little to no hunger were more likely to consume each of those three commodities than children in households experiencing moderate or severe hunger.

Child's sex was significantly associated with consumption of camel meat and sheep milk, with girls more likely than boys to consume camel meat (2.8 percent versus 0.1 percent, respectively), but boys more likely to consume sheep milk (1.9 percent versus 0.2 percent).

Caregiver's education is significantly associated with children's consumption of camel milk and goat milk. Children with the least educated caregivers—those with no education—are more likely to consume camel milk than those with primary school-educated caregivers, 18.8 percent versus 2.4 percent. With respect to goat milk, children whose caregivers have no education are more likely to consume goat milk than children whose caregivers have primary education, 36.6 percent versus 7.4 percent. This pattern (of goat milk more likely to be consumed among those with less education) is similar to the finding for women shown in Table 6.8.

Gendered household type was also significantly associated with children's consumption of the commodities of camel meat and mutton, and household size was associated with consumption of camel meat, with medium households (those with 6-10 members) more likely to consume camel meat than small households (1-5 members), at 3.4 percent and 0.1 percent, respectively. Children's age was not significantly associated with consumption of any of the NRVCC foods.

Table 6.9. Children's (age 6-23 months) consumption of targeted nutrient-rich value chain commodities

Characteristic	Percent									n[1]
	Any targeted commodity[a]	Beef[b]	Camel meat[c]	Mutton[d]	Goat meat[e]	Cow milk[f]	Camel milk[g]	Sheep milk[h]	Goat milk[i]	
Total (All children 6-23 months)	65.2	4.0	1.4	1.2	7.1	36.1	15.3	1.0	30.2	235
Child sex[c,h]										
Male	70.7	6.3	0.1	1.9	5.3	42.3	12.9	1.9	30.3	119
Female	59.6	1.7	2.8	0.4	8.8	29.7	17.7	0.2	30.2	116
Child age										
6-11 months	51.8	4.2	0.2	0.0	6.5	29.9	9.3	0.0	21.2	64
12-17 months	73.1	5.2	0.7	0.2	7.7	40.5	19.3	1.9	37.6	126
18-23 months	64.0	0.0	5.8	6.0	6.0	32.9	13.3	0.0	23.0	45
Caregiver's educational attainment[2,g,i]										
No education	67.5	1.8	1.8	1.4	5.9	33.1	18.8	1.3	36.6	182
Less than primary	^	^	^	^	^	^	^	^	^	15
Primary	50.0	15.3	0.0	0.6	15.5	39.4	2.4	0.0	7.4	34
Secondary or more	^	^	^	^	^	^	^	^	^	4
Gendered household type[c,d]										
Male and female adults	66.9	4.7	0.5	0.4	7.1	36.9	15.2	1.2	32.0	204
Female adult(s) only	58.1	0.0	7.0	5.9	7.0	32.7	16.3	0.0	21.0	30
Male adult(s) only	^	^	^	^	^	^	^	^	^	1
Child(ren) only (no adults)	-	-	-	-	-	-	-	-	-	0

Table 6.9. Children's (age 6-23 months) consumption of targeted nutrient-rich value chain commodities (continued)

Characteristic	Percent									n[1]
	Any targeted commodity[a]	Beef[b]	Camel meat[c]	Mutton[d]	Goat meat[e]	Cow milk[f]	Camel milk[g]	Sheep milk[h]	Goat milk[i]	
Household size[c]										
Small (1-5 members)	61.2	3.4	0.1	0.2	3.9	35.5	14.3	0.0	26.7	127
Medium (6-10 members)	70.9	4.9	3.4	2.6	11.8	36.6	16.9	2.6	35.6	106
Large (11+ members)	^	^	^	^	^	^	^	^	^	2
Household hunger[a,e,f,g]										
Little to no hunger	77.5	7.1	2.5	0.3	11.8	46.5	22.3	1.7	36.2	134
Moderate or severe hunger	48.4	0.0	0.0	2.3	0.9	21.8	6.1	0.2	22.3	96

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[2] The ZOI interim survey identifies the primary caregiver of each age-eligible child. This person is likely, but not necessarily, the child's biological mother.

[a-i] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between any targeted commodity and the sex of the child. When an association between the column indicator and row variable is found to be significant ($p<0.05$), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

7. Nutritional Status of Women and Children

This section presents findings related to the Feed the Future indicators of women's underweight and children's anthropometry (stunting, wasting, and underweight).

7.1 Body Mass Index of Women Age 15-49 Years

Table 7.1 presents women's mean BMI as well as the BMI categories of underweight (BMI < 18.5), normal weight (18.5 ≤ BMI < 25.0), overweight (25.0 ≤ BMI < 30.0), and obese (BMI ≥ 30.0). Estimates are shown for all non-pregnant women age 15-49, as well as disaggregated by individual-level and household-level characteristics. Individual characteristics include age and educational attainment. Household characteristics include gendered household type, size, and hunger.

Among all non-pregnant women age 15-49 in the northern Kenya ZOI, mean BMI is 21.4, or normal weight. This is lower than the 2008-2009 Kenya DHS national women's BMI value of 22.9, and the national rural value of 22.3.[56] (The final report for the 2014 Kenya DHS is not yet available, and nutritional status of women is not included in the 2014 DHS *Key Indicators* report.) As shown in Table 7.1, more than one in four women (25.9 percent) in the northern Kenya ZOI are underweight (BMI < 18.5); this value is over twice that of the 2008-2009 Kenya DHS national women's underweight value of 12.3 percent, and substantially more than the 2008-2009 DHS rural value of 14.1 percent.[57]

Over half of women in the northern Kenya ZOI are normal weight (57.5 percent), and 11.8 percent and 4.8 percent are overweight and obese, respectively. The 2008-2009 Kenya DHS national normal weight, overweight, and obese values are 62.6 percent, 17.9 percent, and 7.2 percent, respectively.[58] The DHS national rural values for women's normal weight, overweight, and obese are 65.8 percent, 14.5 percent, and 5.6 percent, respectively.[59]

As shown in Table 7.1, women's mean BMI varies significantly by levels of age, gendered household type, and household hunger. Mean BMI values increase with increasing age, from 19.9 among women age 15-19 to 22.9 among women age 45-49. Similarly, mean BMI among women in male and female adult households (21.7) is significantly higher than mean BMI in female adult only households (20.6). Mean BMI among women in households with little to no hunger (22.1) is significantly higher than mean BMI among women in households with moderate or severe hunger (20.1).

[56] KNBS and ICF Macro (2010). p. 158.
[57] Ibid.
[58] Ibid.
[59] Ibid.

Table 7.1 also shows that BMI by category varies significantly by levels of educational attainment and household hunger. Finally, the prevalence of underweight women (the Feed the Future standard indicator) varies significantly by household hunger. In the northern Kenya ZOI, women in households with moderate or severe hunger are significantly more likely to be underweight than women in households with little to no hunger, 36.1 percent versus 20.3 percent, respectively.

Table 7.1. Prevalence of underweight, normal weight, overweight, and obese women

Characteristic	Mean BMI[a]	Body Mass Index (BMI) category (percent)[b]				n[1]
		Under-weight[c] (BMI < 18.5)	Normal weight (18.5 ≤ BMI < 25.0)	Over-weight (25.0 ≤ BMI < 30.0)	Obese (BMI ≥ 30.0)	
Total (All women age 15-49)	21.4	25.9	57.5	11.8	4.8	793
Age[a]						
15-19	19.9	34.6	59.6	5.3	0.5	134
20-24	21.4	23.8	59.1	14.4	2.7	143
25-29	21.0	29.5	54.7	13.5	2.3	170
30-34	21.7	25.0	60.1	7.4	7.6	107
35-39	22.2	21.6	55.6	12.3	10.5	121
40-44	22.6	21.6	55.1	14.1	9.1	64
45-49	22.9	14.0	57.7	21.3	7.0	54
Educational attainment[b]						
No education	21.0	26.8	60.5	9.0	3.7	521
Less than primary	22.1	26.2	46.8	10.5	16.4	72
Primary	21.9	23.1	54.9	20.0	2.1	175
Secondary or more	^	^	^	^	^	24
Gendered household type[a]						
Male and female adults	21.7	24.5	57.1	12.3	6.2	643
Female adult(s) only	20.6	29.3	60.1	10.4	0.2	145
Male adult(s) only	^	^	^	^	^	5
Child(ren) only (no adults)	-	-	-	-	-	0
Household size						
Small (1-5 members)	21.0	27.2	58.2	12.2	2.4	403
Medium (6-10 members)	21.6	25.7	57.0	10.7	6.7	362
Large (11+ members)	^	^	^	^	^	28
Household hunger[a,b,c]						
Little to no hunger	22.1	20.3	57.8	15.5	6.3	510
Moderate or severe hunger	20.1	36.1	56.6	5.1	2.2	275

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[a-c] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between BMI and the woman's age. When an association between the column indicator and row variable is found to be significant (p<0.05), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

7.2 Stunting, Wasting, and Underweight Among Children Under 5 Years

This section reports on three anthropometric measurements of undernutrition among children under 5 years in the ZOI: Stunting (height-for-age), wasting (weight-for-height), and underweight (weight-for-age).

7.2.1 Stunting (Height-for-Age)

Stunting is an indicator of linear growth retardation, most often due to a prolonged inadequate diet and poor health. Reducing the prevalence of stunting among children, particularly age 0-23 months, is important because linear growth deficits accrued early in life are associated with cognitive impairments, poor educational performance, and decreased work productivity as adults (Black et al. 2008, Victora et al. 2008). Stunting is a height-for-age measurement that reflects chronic undernutrition. This indicator measures the percentage of children 0-59 months who are stunted, as defined by a height-for-age Z-score more than two standard deviations (SD) below the median of the 2006 WHO Child Growth Standard (<-2SD).[60] The stunting measures presented below include the Feed the Future stunting indicator of moderate or severe stunting combined (<-2SD) as well as the indicator for severe stunting (<-3SD). Mean Z-scores are also presented.

Table 7.2 shows the prevalence of stunting, severe stunting, and mean Z-scores for children under 5 years in the ZOI. Estimates are presented for all children and by child, caregiver, and household characteristics. Children's characteristics include sex and age. Caregivers' characteristics include educational attainment. Household characteristics include gendered household type, size, and hunger.

In the northern Kenya ZOI, 23.3 percent of children, nearly one in four, are stunted. This is compared to the 2008-2009 DHS national value of 35.3 percent and the national rural value of 37.1 percent.[61] Just over one in ten (10.3 percent) of children in the ZOI are severely stunted, compared to the DHS national value of 14.2 percent and the national rural value of 15.3 percent.[62] In the 2014 Kenya DHS (for which the *Key Indicators* report is available, but not yet the final report), 26.0 percent of Kenyan children nationally are stunted, and 8.1 percent nationally are severely stunted.[63] Similarly, in the 2014 Kenya DHS, the national rural stunting and severe stunting values are 29.1 and 9.2 percent, respectively.[64] As shown in Table 7.2, the mean height-for-age Z-score in the ZOI is -0.8, which indicates that the average height-for-age

[60] WHO. (2006).
[61] KNBS and ICF Macro (2010). p. 143.
[62] Ibid.
[63] KNBS. (2015). p. 36.
[64] Ibid.

among children in the northern Kenya ZOI is lower than that of the World Health Organization (WHO) global reference population.

Table 7.2. Stunting (height-for-age) among children under 5 years old

Characteristic	% Stunted (<-2 SD)[a]	% Severely stunted (<-3 SD)	Mean Z-score[b]	n[1]
Total (All children under 5 years)	23.3	10.3	-0.8	822
Child sex				
Male	25.0	13.5	-0.9	395
Female	21.6	7.1	-0.8	427
Child age				
0-11 months	17.4	6.7	-0.7	136
12-23 months	34.2	16.1	-1.3	155
24-35 months	24.8	11.4	-0.8	168
36-47 months	22.6	9.7	-0.7	190
48-59 months	17.2	7.5	-0.7	173
Caregiver's educational attainment[2]				
No education	24.8	11.0	-0.9	654
Less than primary	24.1	6.3	-0.7	52
Primary	12.4	5.4	-0.7	97
Secondary or more	^	^	^	19
Gendered household type				
Male and female adults	22.6	9.8	-0.8	696
Female adult(s) only	27.3	13.0	-0.9	119
Male adult(s) only	^	^	^	7
Child(ren) only (no adults)	-	-	-	0
Household size				
Small (1-5 members)	25.8	11.6	-1.0	396
Medium (6-10 members)	20.6	8.9	-0.7	411
Large (11+ members)	^	^	^	15
Household hunger				
Little to no hunger	21.8	8.8	-0.8	460
Moderate or severe hunger	24.8	12.6	-0.9	354

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[2] The ZOI interim survey identifies the primary caregiver of each age-eligible child. This person is likely, but not necessarily, the child's biological mother.

[a-b] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between percent stunted and the child's sex. When an association between the column indicator and row variable is found to be significant ($p<0.05$), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

7.2.2 Wasting (Weight-for-Height)

Wasting is an indicator of acute malnutrition. Children who are wasted are too thin for their height and have a much greater risk of dying than children who are not wasted. This indicator measures the percentage of children 0-59 months who are acutely malnourished, as defined by a weight-for-height Z-score more than two SD below the median of the 2006 WHO Child Growth Standard. The wasting measures presented below include the Feed the Future wasting indicator of moderate or severe wasting combined (<-2SD) as well as the indicator for severe wasting (<-3SD), and the percentage of children who are overweight (>+2SD) and obese (>+3SD). Mean Z-scores are also presented.

Table 7.3 shows the prevalence of wasting, severe wasting, overweight, obesity, and mean Z-scores for children under 5 years in the ZOI. Estimates are presented for all children and by child, caregiver, and household characteristics. Children's characteristics include sex and age. Caregivers' characteristics include educational attainment. Household characteristics include gendered household type, size, and hunger.

In the northern Kenya ZOI, 16.6 percent of children under 5 are wasted, and 3.2 percent are severely wasted. In contrast to stunting, these values are higher than the 2008-2009 DHS national wasted/severe wasted values of 6.7 percent and 1.9 percent, respectively.[65] The 2008-2009 DHS national rural values are 7.0 and 2.0 percent, respectively.[66] The 2014 Kenya DHS shows national wasting/severe wasting values of 4.0 and 0.9 percent, respectively, and rural values of 4.4 and 1.0 percent, respectively.[67,68]

In the northern Kenya ZOI, 3.0 percent of children are overweight (>+2SD), and less than one percent (0.3 percent) are obese (>+3SD). In the 2008-2009 DHS, 4.7 percent of Kenyan children nationally are overweight, and 4.5 percent in rural areas.[69] In the 2014 DHS, 4.1 percent of Kenyan children nationally are overweight, and 3.4 percent of rural children.[70] (Children's obesity indicators were not provided in these DHS reports.) The mean weight-for-height Z-score in the northern Kenya ZOI is -0.8, which indicates that on average the weight-for-height of children in the ZOI is lower than that for the WHO global reference population.

[65] KNBS and ICF Macro (2010). p. 143.
[66] Ibid.
[67] KNBS. (2015). p. 36.
[68] In addition to national and rural indicator estimates from the 2008-2009 Kenya DHS and the 2014 Kenya DHS *Key Indicators* report, which are presented in this chapter for comparison to northern Kenya ZOI interim survey indicator estimates, 2014 DHS estimates by individual Kenyan counties for children's stunting, wasting, over- and underweight are available from the DHS website here: http://dhsprogram.com/publications/publication-OF28-Other-Fact-Sheets.cfm.
[69] KNBS and ICF Macro. (2010). p. 143.
[70] KNBS. (2015) p. 36.

Table 7.3 also includes the results of significance tests for the children's wasting indicator (<-2SD, the Feed the Future standard indicator), the overweight indicator (>+2SD), and mean weight-for-height Z-scores. There are no significant differences in these indicator values for all disaggregate variables with the exception of child's age. Children's age group is significantly associated with both overweight and mean weight-for-height Z-scores. As shown in the table, the prevalence of overweight decreases with increasing children's age, from 10.2 percent among infants age 0-11 months down to 0.3 percent among children 48-59 months.

Table 7.3. Wasting (weight-for-height) among children under 5 years old

Characteristic	% Wasted (<-2 SD)[a]	% Severely wasted (<-3 SD)	% Overweight (> +2SD)[b]	% Obese (> +3SD)	Mean Z-score[c]	n[1]
Total (All children under 5 years)	16.6	3.2	3.0	0.3	-0.8	822
Child sex						
Male	16.1	4.4	2.9	0.1	-0.8	395
Female	17.1	2.0	3.1	0.6	-0.7	427
Child age[b,c]						
0-11 months	13.1	0.1	10.2	1.2	-0.1	136
12-23 months	15.0	6.1	2.7	0.0	-0.9	155
24-35 months	19.4	0.6	1.6	0.2	-0.7	168
36-47 months	19.3	6.0	0.7	0.2	-1.1	190
48-59 months	15.8	2.3	0.3	0.1	-1.0	173
Caregiver's educational attainment[2]						
No education	17.7	3.5	3.3	0.4	-0.8	654
Less than primary	9.3	0.0	5.9	0.0	-0.6	52
Primary	13.3	3.2	0.2	0.2	-0.6	97
Secondary or more	^	^	^	^	^	19
Gendered household type						
Male and female adults	15.3	3.2	3.0	0.3	-0.7	696
Female adult(s) only	23.2	3.3	3.0	0.6	-0.9	119
Male adult(s) only	^	^	^	^	^	7
Child(ren) only (no adults)	-	-	-	-	-	0
Household size						
Small (1-5 members)	16.6	2.7	3.2	0.5	-0.8	396
Medium (6-10 members)	17.0	3.8	2.6	0.2	-0.8	411
Large (11+ members)	^	^	^	^	^	15
Household hunger						
Little to no hunger	14.1	2.5	2.6	0.3	-0.7	460
Moderate or severe hunger	20.0	4.1	3.7	0.4	-0.9	354

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[2] The ZOI interim survey identifies the primary caregiver of each age-eligible child. This person is likely, but not necessarily, the child's biological mother.

[a-c] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between the percent wasted and the child's sex. When an association between the column indicator and row variable is found to be significant ($p<0.05$), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

7.2.3 Underweight (Weight-for-Age)

Underweight is a weight-for-age measurement and is a reflection of acute and/or chronic undernutrition. This indicator measures the percentage of children 0-59 months who are underweight, as defined by a weight-for-age Z-score of more than two SD below the median of the 2006 WHO Child Growth Standard. The underweight measures presented below include the Feed the Future underweight indicator of moderate or severe underweight combined (<-2SD) as well as the indicator for severe underweight (<-3SD). Mean Z-scores are also presented.

Table 7.4 shows the prevalence of underweight, severe underweight, and mean Z-scores for children under 5 years in the ZOI. Estimates are presented for all children and by child, caregiver, and household characteristics. Children's characteristics include sex and age. Caregivers' characteristics include educational attainment. Household characteristics include gendered household type, size, and hunger.

As shown in Table 7.4, significance tests were run for both children's underweight (<-2SD), the Feed the Future standard indicator, as well as the weight-for-age mean Z-scores. There are no significant differences in prevalence of children's underweight by any of the disaggregate variables in the table. However, children's age is significantly associated with mean underweight Z-scores, with values generally decreasing (moving lower than the reference population) with increasing children's age.

Table 7.4. Underweight (weight-for-age) among children under 5 years old

Characteristic	% Underweight (<-2 SD)[a]	% Severely underweight (<-3 SD)	Mean Z-score[b]	n[1]
Total (All children under 5 years)	21.1	5.2	-1.0	822
Child sex				
Male	21.2	5.8	-1.0	395
Female	21.0	4.6	-1.0	427
Child age[b]				
0-11 months	13.5	0.0	-0.6	136
12-23 months	29.5	8.4	-1.3	155
24-35 months	19.6	4.4	-0.9	168
36-47 months	22.1	9.3	-1.1	190
48-59 months	20.1	2.7	-1.1	173
Caregiver's educational attainment[2]				
No education	22.8	5.8	-1.1	654
Less than primary	19.0	0.0	-0.9	52
Primary	10.3	4.5	-0.8	97
Secondary or more	^	^	^	19
Gendered household type				
Male and female adults	20.5	4.6	-1.0	696
Female adult(s) only	25.0	8.1	-1.1	119
Male adult(s) only	^	^	^	7
Child(ren) only (no adults)	-	-	-	0
Household size				
Small (1-5 members)	22.9	4.7	-1.1	396
Medium (6-10 members)	19.6	5.9	-0.9	411
Large (11+ members)	^	^	^	15
Household hunger				
Little to no hunger	18.1	4.7	-0.9	460
Moderate or severe hunger	25.3	5.9	-1.1	354

^ Results not statistically reliable, n<30.

[1] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

[2] The ZOI interim survey identifies the primary caregiver of each age-eligible child. This person is likely, but not necessarily, the child's biological mother.

[a-b] A superscript in the column heading indicates significance tests were performed for associations between the indicator in the column heading and each of the variables in the rows. For example, a test was done between the percent underweight and the child's sex. When an association between the column indicator and row variable is found to be significant ($p<0.05$), the superscript for the indicator in the column heading is noted next to the row variable.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

8. Summary and Conclusions

This report presents the results of the first interim assessment for the Feed the Future northern Kenya ZOI. The northern Kenya ZOI consists of five counties: Garissa, Isiolo, Marsabit, Turkana, and Wajir. Sample size for this assessment is sufficient to provide point estimates for standard Feed the Future indicators, but was not designed to be large enough to measure change in indicator values from the 2013 baseline assessment. Thirteen Feed the Future indicators are included in this assessment: (1) Daily per capita expenditures (as a proxy for income) in USG-assisted areas; (2) Prevalence of Poverty; (3) Depth of Poverty; (4) Prevalence of households with moderate or severe hunger; (5) Women's Dietary Diversity; (6) Prevalence of children 6-23 months receiving a MAD; (7) Prevalence of exclusive breastfeeding among children under 6 months of age; (8) Prevalence of women of reproductive age who consume targeted NRVCC; (9) Prevalence of children 6-23 months who consume targeted NRVCC; (10) Prevalence of underweight women; (11) Prevalence of stunted children under 5 years of age; (12) Prevalence of wasted children under 5 years of age; and (13) Prevalence of underweight children under 5 years of age.

These indicators are calculated from primary data, the northern Kenya baseline, and interim surveys; no secondary data sources were used in Kenya. The ZOI interim survey was conducted 14 May–13 June 2015 by FTF FEEDBACK in conjunction with its in-country data collection partner, Kimetrica.

The indicators listed above are presented in the Executive Summary table in this report for three subsamples: (1) the 2013 three-county baseline subsample (i.e., Marsabit, Isiolo, and Turkana, the ZOI counties for which baseline data were collected); (2) the 2015 three-county interim subsample (for comparison to the baseline subsample); and (3) the full 2015 five-county interim ZOI (Garissa, Isiolo, Marsabit, Turkana, and Wajir). In addition, and similar to the 2013 baseline survey, the 2015 northern Kenya ZOI interim survey included a module on households' livelihoods and resilience to economic shocks. The resilience analysis is also presented separately from this ZOI interim report, and is included in the REGAL IE report.

8.1 Summary of Key Findings

Household Economic Status

In the five counties of the northern Kenya ZOI, average daily per capita expenditures is $2.01 (2010 USD). The percentage of people living below $1.25 per day (2005 PPP) is 47.0 percent, and the depth of poverty (the mean percent shortfall relative to the $1.25 per day poverty line) is 19.4 percent.

WEAI Indicators

While neither the WEAI nor its component sub-indices can be calculated for the interim assessments, this report presents uncensored headcounts for nine of the 10 WEAI indicators. Uncensored headcounts are the percent of primary adult female decisionmakers who achieve adequacy on each of the WEAI indicators, regardless of their overall empowerment status. The WEAI indicators with the highest achievement include workload (81.7 percent), control over the use of income (76.6 percent), and satisfaction with leisure time (69.2 percent). The WEAI indicators with the lowest achievement among primary adult female decisionmakers include access to and decisions on credit (1.8 percent) and group membership (27.0 percent).

Hunger and Dietary Intake

Over one-third (38.4 percent) of households in the northern Kenya ZOI experience moderate or severe hunger. The women's dietary diversity indicator is 3.37 food groups. This is the mean number of food groups (of nine possible groups) consumed by women of reproductive age (15-49 years) in the five counties of the ZOI. The prevalence of exclusive breastfeeding among children under 6 months is 43.4 percent; fewer than half of infants in the northern Kenya ZOI are exclusively breastfed. Among children 6-23 months in the ZOI, only 3.6 percent receive a MAD.

The NRVCC in northern Kenya are the meat and milk from four animals: cattle, camels, sheep, and goats. The eight NRVCC foods for women age 15-49 and children 6-23 months are beef, camel meat, mutton, goat meat, cow milk, camel milk, sheep milk, and goat milk. Questions about the consumption of these foods were incorporated into the women's and children's dietary intake modules of the ZOI interim survey (Modules H and I, respectively).

Among women of reproductive age in the ZOI, over three-quarters (77.4 percent) consume at least one of the eight NRVCC foods, with goat milk most commonly consumed (38.2 percent of women), and mutton (sheep meat) least commonly consumed (2.7 percent). Among children 6-23 months, nearly two-thirds (65.2 percent) consume at least one of the eight NRVCC foods. For children, cow milk is the most prevalent NRVCC (consumed by 36.1 percent of children), and sheep milk is the least prevalent (consumed by only 1.0 percent of children).

Nutritional Status of Women and Children

About one in four (25.9 percent) non-pregnant women of reproductive age in the ZOI is underweight (a BMI less than 18.5). Among children less than 5 years in the northern Kenya ZOI, 23.3 percent (nearly one-fourth) are stunted; these children have low height-for-age, indicating long term, chronic undernutrition. About 16.6 percent of children—one in every six children in the ZOI—are wasted, or have low weight-for-height. Wasting is an indicator of

acute malnutrition. Finally, 21.1 percent of children are underweight, or have low weight-for-age. Underweight is an indicator of either acute or chronic undernutrition in children.

Conclusions

The northern Kenya ZOI interim survey was not designed to measure change from baseline indicator values, nor was it designed to draw conclusions about attribution or causality. For a few indicators, however, non-overlapping CIs between the 2013 three-county baseline subsample and the comparable 2015 three-county interim subsample point to a statistically significant change over time. It should be noted that these three-county baseline and interim estimates are shown in the Executive Summary table only. The remainder of this report presents estimates using data from all five counties in the northern Kenya ZOI. In addition, when CIs do overlap, which is the case for most indicators, conclusions cannot be made regarding statistically significant change from baseline to interim.

Significant differences were found over time between the baseline and interim three-county estimates for the five WEAI indicators of ownership of assets; purchase, sale, or transfer of assets; access to and decisions on credit; workload; and satisfaction with leisure time. For four of the five WEAI indicators showing significant change over time, uncensored headcounts declined between baseline and interim. The exception is the workload indicator, which increased between baseline and interim (from 52.0 percent of women achieving adequacy to 71.2 percent, as shown in the Executive Summary table).

In addition to some of the WEAI uncensored headcounts, the WDDS indicator showed significant change between the three-county baseline estimate and the three-county interim estimate, increasing from 2.30 to 2.95 food groups. Additionally, significant change over time is shown in the three-county baseline and three-county interim estimates for the prevalence of underweight children under 5 years of age. This indicator increased from 19.1 percent to 28.5 percent for the three-county subsamples shown in the Executive Summary table.

Notwithstanding the description above regarding the specific indicators which exhibit statistically significant change over time (for the three-county subsamples of Marsabit, Isiolo, and Turkana between baseline and interim), this first interim assessment was designed to present point estimates for the Feed the Future indicators. The second interim assessment for the northern Kenya ZOI, planned for 2017, will explicitly explore change in indicator estimates over time.

References

Alkire, S., Malapit, H., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G., and Vaz, A. (2013). *Instructional Guide on the Women's Empowerment in Agriculture Index*. International Food Policy Research Institute (IFPRI). (2013). Retrieved from http://www.ifpri.org/publication/womens-empowerment-agriculture-index.

Black, R.E., Allen, L.H., Bhutta, Z.A., Caulfield, L.E., de Onis, M., Ezzati, M. Mathers, C., and Rivera, J. (2008). Maternal and child undernutrition: Global and regional exposures and health consequences. *The Lancet. 371*(9608), 243-260.

Central Intelligence Agency. *World Factbook.* https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html. Retrieved on October 26, 2015.

CIA. World Factbook. https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html. Retrieved on October 26, 2015.

Darnton-Hill, I., Webb, P., Harvey, P.W.J., Hunt, J.M., Dalmiya, N., Chopra, M. Ball, M.J., Bloem, M.W., and de Benoist, B. (2005). Micronutrient deficiencies and gender: Social and economic costs. *American Journal of Clinical Nutrition*, May 2005, *81*(Supplement), 1198S-1205S.

Deaton, A. (2008). *The analysis of household surveys: A microeconomic approach to development policy*. Baltimore: The Johns Hopkins University Press.

Deaton, A., and Zaidi, S. (2002). Guidelines for constructing consumption aggregates for welfare analysis. Working Paper No. 135. Washington, DC: The World Bank.

Deitchler, M., Ballard, T., Swindale, A., and Coates, J. (2011). *Introducing a simple measure of household hunger for cross-cultural use.* FANTA Technical Note No. 12. Washington, DC: USAID.

Farmer, E., and Mbwika, J. (2012). *End market analysis of Kenyan livestock and meat* (A desk study). USAID: ACDI/VOCA.

FAOSTAT (2015). Accessed October 22, 2015.

Food and Agriculture Organizations of the United Nations. Food and Agriculture Data. http://www.fao.org/faostat/en/#home. Retrieved October 22, 2015.

Grosh, M., and Glewwe, P. (1995). *A guide to living standards measurement study surveys and their data sets*. Living Standards Measurement Study Group Working Paper No. 120. Washington, DC: The World Bank.

International Government Authority on Development (IGAD) Centre for Pastoral Areas and Livestock Development (ICPALD). (2013). *The contribution of livestock to the Kenyan economy.* IGADLPI Working Paper 0311.

Kaplinsky, R., and Morris, M. (2002). *A handbook for value chain analysis*. Ottawa, Canada: International Development Research Center.

Kenya Commission on Revenue Allocation. (2011). *Kenya county fact sheets.* Retrieved from http://www.slideshare.net/simbagoma/commission-of-revenue-kenya-county-fact-sheets-dec-2011 on October 13, 2016.

Kenya National Bureau of Statistics. (2007a). *Basic report on well-being in Kenya: Based on Kenya integrated household budget survey – 2005/06*. Nairobi, Kenya: KNBS. Retrieved from http://statistics.knbs.or.ke/nada/index.php/catalog/8/download/35 on October 26, 2015.

Kenya National Bureau of Statistics. (2007b). *Consumer price indices CPI*. Retrieved from http://www.knbs.or.ke/index.php?option=com_phocadownload&view=category&id=8:consumer-price-indices-cpi&Itemid=562 on October 26, 2015.

Kenya National Bureau of Statistics (KNBS) (2010a). *The 2009 Kenya population and housing census: Volume 1A, population distribution by administrative units.* Nairobi, Kenya: KNBS.

Kenya National Bureau of Statistics (KNBS) (2010b). *The 2009 Kenya population and housing census: Volume 1B, population distribution by political units.* Nairobi, Kenya: KNBS.

Kenya National Bureau of Statistics (KNBS). (2010c). *The 2009 Kenya population and housing census: Volume 1I, population and housing distribution by socio-economic conditions.* Nairobi, Kenya: KNBS.

Kenya National Bureau of Statistics (KNBS) (2015). *Kenya demographic and health survey 2014: Key indicators*. Nairobi, Kenya: KNBS.

Kenya National Bureau of Statistics (KNBS) and ICF Macro (2010*). Kenya demographic and health survey 2008-09*. Nairobi, Kenya: KNBS and Calverton, Maryland: ICF Macro.

Newson, R.B. (2010). Frequentist q-values for multiple-test procedures. *Stata Journal,10*(4), 568.

Storey, J.D. (2002). A direct approach to false discovery rates. *Journal of the Royal Statistical Society: Series B (Statistical Methodology), 64*(3), 479-498.

Stukel, D., and Deitchler, M. (2012). *Addendum to FANTA sampling guide* by Robert Magnani (1999). Washington, DC: FHI 360/FANTA http://www.fantaproject.org/sites/default/files/resources/Sampling-1999-Addendum-2012-ENG_0.pdf.

The World Bank. Consumer Price Index (2010=100). http://data.worldbank.org/indicator/FP.CPI.TOTL. Retrieved on September 18, 2015.

The World Bank. *Data*. http://data.worldbank.org/country/kenya. Retrieved on October 26, 2015.

The World Bank. (2014). *Purchasing power parities and the real size of world economies: A comprehensive report of the 2011 international comparison program.* The World Bank. Retrieved from http://elibrary.worldbank.org/doi/book/10.1596/978-1-4648-0329-1. Retrieved on December 29, 2015.

The World Bank. (2015a). *PovcalNet: An online analysis tool for global poverty monitoring.* Retrieved from http://iresearch.worldbank.org/PovcalNet/index.htm. Retrieved on December 29, 2015.

The World Bank. (2015b). *PPP conversion factor, private consumption (LCU per international $).* Retrieved from http://data.worldbank.org/indicator/PA.NUS.PRVT.PP. Retrieved on December 29, 2015.

United States Agency for International Development (USAID). (2014). Feed the Future M&E Guidance Series. Volume 6: Feed the Future Measuring Gender Impact Guidance, March. Accessed 27 March 2015 at http://www.feedthefuture.gov/resource/volume-6-feed-future-measuring-gender-impact-guidance.

USAID. (2011). *Request for proposal (RFP) # SOL-615-12-000005 resilience and economic growth in the arid lands-accelerated growth (REGAL-AG).*

USAID. (2014). *Volume 11: Guidance on the first interim assessment of the Feed the Future Zone of Influence population-level indicators* (October 2014).

Victora, C.G., Adair, L., Fall, C., Hallal, P.C., Martorell, R., Richter, L., and Sachdev, H.S. (2008). Maternal and child undernutrition: Consequences for adult health and human capital. *The Lancet. 371*(9608), 340-357.

Webber, C.M., and Labaste, P. (2010). *Building competitiveness in Africa's agriculture : A guide to value chain concepts and applications.* Washington, DC: The World Bank. https://openknowledge.worldbank.org/handle/10986/2401.

WHO and UNICEF. (2006). *WHO child growth standards and the identification of severe acute malnutrition in infants and children.* World Health Organization and United Nations Children's Fund.

World Bank. (2011). Poverty and Equality Data FAQs. http://go.worldbank.org/PYLADRLUN0. Accessed 15 April 2015.

Appendix 1. Supplementary Data and Figures

A1.1 Interim Feed the Future Indicator Estimates

Unweighted sample sizes, point estimates, standard deviations, confidence intervals, design effects (DEFF), and non-response rates for the interim Feed the Future indicators for the Zone of Influence.

Feed the Future indicator	Estimate					n
	Indicator[a]	SD	95% CI	DEFF	Non-response rate[1]	
Daily per capita expenditures (as a proxy for income) in USG-assisted areas (2010 USD)						
All households	2.01	2.84	1.85 – 2.17	0.9	4.4	1,160
Male and female adults	1.89	1.67	1.74 – 2.03	1.6	4.0	834
Female adult(s) only	2.01	2.10	1.71 – 2.32	1.2	5.4	228
Male adult(s) only	4.78	16.89	2.29 – 7.27	0.5	5.5	98
Child(ren) only (no adults)	–	–	–	–	–	0
Prevalence of Poverty: Percent of people living on less than $1.25/day (2005 PPP)						
All households	47.0	-	42.5 – 51.6	1.9	4.4	1,160
Male and female adults	47.9	-	42.7 – 53.1	1.9	4.0	834
Female adult(s) only	47.4	-	37.8 – 57.3	1.4	5.4	228
Male adult(s) only	27.3	-	15.3 – 43.9	0.9	5.5	98
Child(ren) only (no adults)	–	–	–	–	–	0
Depth of Poverty: Mean percent shortfall relative to the $1.25/day (2005 PPP) poverty line						
All households	19.4	30.2	16.3 – 22.4	3.0	4.4	1,160
Male and female adults	20.0	28.8	16.7 – 23.2	2.7	4.0	834
Female adult(s) only	18.9	33.0	13.4 – 24.5	1.6	5.4	228
Male adult(s) only	9.4	37.1	1.9 – 16.8	1.0	5.5	98
Child(ren) only (no adults)	–	–	–	–	–	0
Percent of women achieving adequacy on Women's Empowerment in Agriculture Index Indicators[2]						
Input in productive decisions	51.0	–	44.8 – 57.3	1.9	32.5	717
Autonomy in production	n/a	n/a	n/a	n/a	n/a	n/a
Ownership of assets	52.9	–	47.9 – 57.8	1.2	32.5	717
Purchase, sale or transfer of assets	39.5	–	34.4 – 44.8	1.4	32.5	717
Access to and decisions on credit	1.8	–	1.0 – 3.3	0.8	32.5	717
Control over use of income	76.6	–	70.7 – 81.6	2.0	32.5	717
Group member	27.0	–	22.3 – 32.3	1.6	32.5	717
Speaking in public	41.2	–	35.4 – 47.1	1.8	32.5	717
Workload	81.7	–	77.4 – 85.3	1.3	32.5	717
Leisure	69.2	–	63.6 – 74.2	1.6	32.5	717

Feed the Future indicator	Estimate					n
	Indicator[a]	SD	95% CI	DEFF	Non-response rate[l]	
Prevalence of households with moderate or severe hunger[a]						
All households	38.4	–	33.6 – 43.4	2.3	3.0	1,177
Male and female adults	35.2	–	30.5 – 40.2	1.6	2.8	844
Female adult(s) only	53.5	–	44.7 – 62.0	1.5	3.7	232
Male adult(s) only	27.2	–	17.7 – 39.3	1.3	2.6	101
Child(ren) only (no adults)	–	–	–	–	–	0
Women's Dietary Diversity: Mean number of food groups consumed by women of reproductive age						
All women age 15-49	3.37	2.10	3.17 – 3.56	2.0	9.1	951
Prevalence of exclusive breastfeeding among children under 6 months of age						
All children	43.4	–	30.7 – 57.0	1.3	6.0	81
Male children	45.2	–	29.1 – 62.3	0.9	10.1	32
Female children	42.1	–	26.5 – 59.4	1.2	3.2	49
Prevalence of children 6-23 months receiving a minimum acceptable diet						
All children	3.6	–	1.8 – 7.3	1.0	13.2	235
Male children	4.8	–	1.8 – 12.3	1.2	14.3	119
Female children	2.4	–	0.7 – 7.9	0.9	12.0	116
Prevalence of women of reproductive age who consume targeted nutrient-rich value chain commodities						
Beef: All women age 15-49	4.1	–	2.5 – 6.8	2.0	9.1	951
Camel meat: All women age 15-49	8.0	–	5.7 – 11.1	1.7	9.1	951
Mutton: All women age 15-49	2.7	–	1.7 – 4.3	1.0	9.1	951
Goat meat: All women age 15-49	24.1	–	19.6 – 29.1	2.2	9.1	951
Cow milk: All women age 15-49	36.4	–	30.5 – 42.9	3.0	9.1	951
Camel milk: All women age 15-49	19.2	–	15.8 – 23.1	1.6	9.1	951
Sheep milk: All women age 15-49	3.1	–	2.0 – 4.9	1.2	9.1	951
Goat milk: All women age 15-49	38.2	–	32.7 – 44.0	2.4	9.1	951
Prevalence of women of reproductive age who consume at least one targeted nutrient-rich value chain commodity						
All women age 15-49	77.4	–	71.5 – 82.3	3.0	9.1	951
Prevalence of children 6-23 months who consume specific targeted nutrient-rich value chain commodities						
Beef: All children	4.0	–	1.3 – 11.5	2.5	13.2	235
Camel meat: All children	1.4	–	0.3 – 6.2	1.6	13.2	235
Mutton: All children	1.2	–	0.3 – 5.0	1.3	13.2	235
Goat meat: All children	7.1	–	3.3 – 14.6	2.2	13.2	235
Cow milk: All children	36.1	–	27.7 – 45.4	1.8	13.2	235
Camel milk: All children	15.3	–	11.0 – 20.9	1.0	13.2	235
Sheep milk: All children	1.0	–	0.3 – 3.7	0.9	13.2	235
Goat milk: All children	30.2	–	23.5 – 38.0	1.3	13.2	235
Prevalence of children 6-23 months who consume at least one targeted nutrient-rich value chain commodity						
All children	65.2	–	56.7 – 72.8	1.5	13.2	235
Male children	70.7	–	61.7 – 78.3	0.9	14.3	119
Female children	59.6	–	47.3 – 70.8	1.5	12.0	116

Feed the Future indicator	Estimate					n
	Indicator[a]	SD	95% CI	DEFF	Non-response rate[1]	
Prevalence of underweight women						
All non-pregnant women age 15-49	25.9	–	22.1 – 30.1	1.2	11.6	793
Prevalence of stunted children under 5 years of age						
All children	23.3	–	20.2 – 26.8	1.0	14.0	822
Male children	25.0	–	20.2 – 30.6	1.1	15.8	395
Female children	21.6	–	17.6 – 26.2	0.9	12.3	427
Prevalence of wasted children under 5 years of age						
All children	16.6	–	13.1 – 20.7	1.7	14.0	822
Male children	16.1	–	11.1 – 22.7	2.0	15.8	395
Female children	17.1	-	12.1 – 23.5	1.8	12.3	427
Prevalence of underweight children under 5 years of age						
All children	21.1	-	17.7 – 25.0	1.3	14.0	822
Male children	21.2	-	16.7 – 26.6	1.2	15.8	395
Female children	21.0	-	15.8 – 27.4	1.6	12.3	427

[1] Non-response rates for each indicator are derived by the difference between the number of eligible cases and the number of observations available for analysis divided by the number of eligible cases.

[2] The full WEAI score cannot be calculated because interim data were collected from women only and the autonomy indicator was dropped. The second interim survey (2017) will collect the full set of data from women and men and will report on the full WEAI.

[a] Significance tests were run for associations between each indicator (bold text title in the rows) and the disaggregate variable below the indicator title. For example, a test was done between per capita expenditures and gendered household type. When an association between the indicator and disaggregate variable is found to be significant ($p<0.05$), the superscript is noted next to the indicator.

n/a – Not available.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015

Appendix 2. Methodology

A2.1 Sampling, Weighting, and Multiple Testing Adjustment

Sampling

There are three areas with different REGAL IE intensity level (high, medium, and low) in the ZOI. Within each area the sample of households for the interim survey followed a two-stage stratified cluster sampling design. The stratification is by county and urban/rural. In the first stage, 44 EAs were selected for each area. In the medium and low intensity areas (7 counties), EAs were selected from the frame of 2009 Population and Housing Census of Kenya by PPS sampling. In the high intensity areas (Marsabit and Isiolo counties), 44 EAs were randomly selected from the DHS sample. In the second stage, 16 households were selected for interview at random from a comprehensive list of households generated during a listing operation for the medium and low intensity areas; while 18 households were randomly selected for the high intensity areas.

Weighting

Data required for weighting of survey data were collected throughout the sampling process, and included: (1) EA measure of size (where size is in terms of number of population or number of households) used for selection of EAs; (2) measure of size of strata from which EAs are drawn; (3) measure of size of EAs at time of listing; and (4) response rates among households, women, and men. Weights were calculated for households, women, children, and for WEAI indicator in the sample.

For the medium and low IE intensity areas, design weights were calculated based on the separate sampling probabilities for each sampling stage and each EA. We have:

P_{1hi} = first-stage sampling probability of the *i*-th EA in stratum *h*.

P_{2hi} = second-stage sampling probability within the *i*-th EA (household selection).

The probability of selecting EA *i* in the sample is:

$$P_{1hi} = \frac{m_h \times N_{hi}}{N_h}$$

where:

m_h = number of sample EAs selected in stratum *h*.

N_{hi} = total population in the frame for the *i*-th sample EA in stratum *h*.

N_h = total population in the frame in stratum *h*.

For the high IE intensity area, the EA selection probabilities were provided by KNBS.

The second-stage probability of selecting a household in EA *i* is:

$$P_{2hi} = \frac{n_{hi}}{L_{hi}}$$

where:

n_{hi} = number of sample households selected for the *i*-th sample EA in stratum *h*.

L_{hi} = number of households listed in the household listing for the *i*-th sample EA in stratum *h*

The overall selection probability of each household in EA *i* of stratum *h* is the product of the selection probabilities of the two stages:

$$P_{hi} = P_{1hi} \times P_{2hi} = \frac{m_h \times N_{hi}}{N_h} \times \frac{n_{hi}}{L_{hi}}$$

The design weight for each household in EA *i* of stratum *h* is the inverse of its overall selection probability:

$$w_{hi} = \frac{1}{p_{hi}} = \frac{N_h \times L_{hi}}{m_h \times N_{hi} \times n_{hi}}$$

The sampling weight was calculated with the design weight corrected for non-response of EAs as well as for households/individuals in each of the selected EAs. The EA level response rate in one stratum was calculated as the ratio between the number of EAs interviewed and the number selected. Other response rates were calculated at EA level as ratios of the number of interviewed units over the number of eligible units, where units could be household or individual (woman, child, or WEAI).

Multiple Testing Adjustment

Overall, group testing was performed to assess group differences. In particular, it could identify if there was a significant difference among the categories of a disaggregate or subgroups and another outcome. To adjust for multiple testing, false discovery rates (FDR) were used to reduce the likelihood of identifying false positives while maintaining the statistical power

necessary to identify significant associations.[71,72] In this approach, an adjusted p-value (or q-value) was produced to identify statistically significant differences while accounting for the fact that some large differences may appear due to chance and multiple testing. An FDR adjusted p-value (or q-value) of 0.05 implies that 5 percent of significant tests will result in false positives.

A2.2 Poverty Prevalence and Expenditure Methods

Data Source

The expenditure and poverty indicators calculated for the ZOI Interim Assessment were derived using data collected through the expenditure module of the northern Kenya ZOI Interim Survey. The food unit conversion data was provided by Kimetrica and supplemented by additional data collected in the Nairobi Market by field staff. The representative survey covered 1,441 households in the five counties of the northern Kenya ZOI. Among these, 1,193 households completed interviews, and 1,160 households provided expenditure data on food, non-food items, housing, and durables.

Data Preparation and Expenditure Estimation by Components

The northern Kenya ZOI Interim Survey collected expenditure data by four major components, including food, non-food, housing, and durables. Each of the four components has a different recall period. Where possible, the interim assessment indicators for poverty and expenditures in a given country are calculated following the country's own methodology and in conjunction with the Deaton and Zaidi[73] approach for deriving poverty. As with the 2013 baseline estimates, the expenditure estimates presented in this report are derived following the same methodology used by Living Standards Measurement Survey (LSMS) to prepare national estimates of poverty in Kenya. As the different types of expenditures were measured with different recall periods, data preparation and computation were conducted separately for each of the four types of expenditures.

Food Consumption

- Food consumption on 182 food items was measured with a 7-day (one week) recall period. This included the total quantity of a food item that was consumed in the period, and the breakdown of the quantity and value of the food that was purchased, produced, and or gifted.

[71] Newson, R.B. (2010). p. 568.
[72] Storey, J.D. (2002). pp. 479-498.
[73] Deaton, A., and S. Zaidi. (2002).

- The quantity of each consumed food item was measured by one of 24 different measurement units and was converted into metric units (e.g., kilograms or liters) using a comprehensive conversion table where conversion factors were available.

- The unit value (price) of each consumed food item was derived using the total reported value and the converted metric unit. When a consumed food item for a household came from both purchases as well as from the household's own production or gifts, the purchase unit price was used to value the total amount consumed by the household.

  However, when the food item came from only home production or gifts, the EA-level median unit purchase price was compared with the unit value of home production or gift, and the latter unit value was overwritten as needed. Specifically, when the reported unit value from home production or gifts was 50 percent higher or lower than the inferred purchase median unit price, the unit value was replaced by the imputed median price. Otherwise, the reported unit value was used to value the food consumption from home production or gifts.

- Prior to developing the food consumption aggregates, two types of outliers were identified using the mean +/- four times the SD: Outliers among the normalized (per capita) total quantity of consumption, and those among the unit purchase price for each and all food items. The outliers as well as the missing values of the unit price were replaced by EA-level matched median purchase prices. Similarly, the outliers and missing values in the total quantity of food consumption were replaced by EA-level matched median values for the food consumption aggregates.

Expenditures on Durable Goods

- Expenditures on durable goods was reported with an annual recall period. Reporting included the number of units that a household owns for a specific durable item among a list of 38 specified durables, the average age for the items, the perceived average current value of the items, and the total price paid for those items purchased in the past 12 months. It should be noted that the number of items purchased in the past 12 months was not reported. The consumption aggregates for durables were estimated with a depreciated usage value, which is an annual usage fee based on the present item value spread across its expected life span. Specifically, the annual value or usage fee for an item is equal to the reported value of the item divided by the expected remaining life span.[74]

[74] Ibid, p. 36.

– The *expected life span* of an item was estimated as two times the average age ($\bar{T}$) of like items owned by the sample of households. The *expected useful remaining life* (U) equals the expected life span minus the current age (t) of the item. If the resulting U was less than 2 years, it was rounded up to 2 years. U is expressed as:

$$U = 2 * \bar{T} - t \; if \; U > 2$$

$$\bar{T} = \frac{\sum t * n * w_h}{\sum n * w_h}$$

where n denotes the number of units of the item and $w_h$is the household weight.

- The estimated annual value for a durable item equals the number of durable units times the reported average value per item, divided by the useful remaining life. The estimated annual values reported were translated into daily values to be consistent with other consumption aggregates.

- Prior to developing the consumption aggregates, we estimated the mean and median values by urban and rural by county, and durable age for each durable item using those cases where only a single unit was reported by the households. The outliers among the durables with a single unit were identified using the mean +/- four times the SD, and were then replaced with the median value.

- As many households reported owning multiple units for a durable item, it was unclear if the reported average value reflected the value for a single item or the total value for all the items. Therefore, to evaluate the reliability of the multiple item case average values, a low and high boundary based on the values given for the households owning a single item was computed. The boundary was computed as a function of urban, county, and use-age, and was set as the mean value across the subsample of single-item owning households +/- one SD. When the multiple-case unit value was out of bounds, it was replaced by the median unit value provided by the single-item owning subsample.

Non-Food Expenditure

- The non-food expenditure sub-modules listed 130 types of expenditures that were measured with different recall periods including 1 week, 1 month, 3 months, and 1 year. Each type of expenditure was reported with only one measurement: The total price or expenses paid by the household for the recall period.

- Certain types of non-food expenditures were excluded from the final aggregation. These included expenses for gifts or transfers outside the household, marriage ceremony costs, funeral costs, loan repayments, and taxes or levies. Such expenses, as Deaton and Zaidi suggested, are either not contributing to the household welfare or should be considered as infrequent large expenditures.

- Other "lumpy" expenditures excluded from the analysis included construction materials and health expenditures for specific illnesses and related incidentals including travel, lodging and board associated with hospitalizations or treatment by traditional health care providers.

- The rest of the non-food expenditures were classified into different groups and the expenses for items belonging to each group were summed up to represent the total expenses for the recall period.

- Prior to developing the aggregates, the reported total prices for each type of the non-food expenditure (utilities, clothing, education, etc.) were evaluated for outliers. First, regression analyses were performed to check if expenses on a per-item basis within groups depended on the size of the household, or the number of males, females, or students in the household. Wherever the value of an item was found to be dependent on these household groups, the expenses were normalized by the relevant household member size to be converted into a per capita expense. Secondly, the mean statistics were estimated by rural/urban and county EAs for each type of expenditure. Outliers for each type of expense (either total or per capita) were identified using the mean +/- four times the SD, and imputed using the median value as needed.

Housing Expenditure

- Housing expenditure consists of expenses on utilities, house maintenance, repair, and related items, as well as rent or mortgage payments. This section deals with only those factors that contribute to the estimated structural and property value of one's dwelling; housing expenditures relevant to aesthetics and internal furnishings were estimated in the previously described durables and/or non-food modules. "Rental value" as discussed here refers to the actual rents paid by tenants and mortgage payments made by homeowners. However, few homeowners reported any mortgages or perceived rental cost. Therefore, the rental values for homeowner households had to be estimated using either the depreciation valuation (when the value of the house is known) – which treats houses as a durable – or an estimate based on a hedonic regression fitted value.[75] We took the hedonic regression approach to estimate monthly rental value for all homeowner households by using fitted values of a regression of observed rental values on various household dwelling and amenity characteristics using the sample of tenant households.

- Prior to performing the hedonic regression, the outliers of rental values within urban county EAs were identified and replaced if they exceeded the mean +/- four times the SD. The outliers were replaced by the estimated EA median rental value.

[75] Ibid.

- The correlation between the log of rental value and various dwelling characteristics was evaluated in the sample. The log of rental value was then regressed on various selected dwelling characteristics to determine the best fitted model. The finalized log linear model predicts rental value using a set of covariates including region, dwelling wall materials, floor finish, number of rooms, availability of electricity, piped water, and toilet, as well as the total value of the durables in the household. All the missing values were imputed using the estimated median rental values.

Price Adjustments

Spatial Price Adjustment

As food prices vary markedly across geographic areas, a Paasche index using the formula specified below was constructed for a food basket comprised of 36 major foods consumed in Kenya. The Paasche price index is the preferred approach of Deaton and Zaidi[76] because it considers a household's own consumption patterns when standardizing food consumption aggregates. The equation for this index is:

$$In(P) = \left(\sum_{k=1}^{36} w_k^h In(\frac{p_k^h}{p_k^0})\right)$$

where P is the Paasche price index, k is the food item, w_k^h is the weight for the food item (share of household expenses for this item), p_k^h is the price of the item in the household, and p_k^0 is the reference price for the item.

These indices were used to deflate nominal food expenditures for the 36 food items. No adjustments were made to standardize the rest of the food, beverage, and alcohol items. Non-food components of household consumption were also excluded from the adjustment.

Intertemporal Price Adjustment

The monthly CPI values for Kenya were collected from the KNBS website.[77] The CPI values were used to construct conversion factors corresponding to the recall periods for which the nominal expenditure data were derived as described above. The various consumption aggregates were then converted to 2005 prices. Specifically, the food consumption was deflated to the month of a household's interview. Recent non-food and non-durable consumption was adjusted by the average CPI of the month that the household was interviewed and the month preceding the interview. The durable goods expenditure, measured with a 365-day recall, was deflated by the average CPI of the 12 months prior to a household's interview.

[76] Ibid.
[77] KNBS. (2007b).

Expenditure Aggregation and Categorization

We define 12 categories for the expenditure aggregates estimated from each item or service in the four expenditure types (food, non-food, housing, and durables) in the survey. The total expenditure for a household is the summation of the monetary totals for the 12 categories, which are defined below:

Food	Food consumed (excluding alcohol) and Paasche index adjusted
Alcohol	Alcohol and cigarettes
House	Maintenance, repair, and utilities, including all energy- and water-related expenses and the goods required to access these services
Rent	Rental value
Furnish	Furnishings, including durables and semi-permanent objects that furnish a house
Clothing	Clothing (excluding school uniforms), shoes, and fabric used for clothes
Transport	Fees for transportation or prices/usage fees paid for durables used for transportation
Recreation	Items used primarily for enjoyment
Communication	Cell phones and things related to the use of cell phones, landline phones, mail, or courier fees
Health	Expenses incurred for health care and treatment
Education	School uniforms, school supplies, tuition, or other fees
Miscellaneous	Miscellaneous includes various household supplies, such as cleaners, fees paid to servants, personal items, or other unclassified items

Table A2.1 shows how the items from the four consumption modules are split into the 12 categories.

Table A2.1. Consumption aggregates and ZOI survey sub-module

Consumption aggregate	Food module	Non-food modules	Housing module (E6)	Durables module
Food	✓			
Alcohol	✓	✓		
House		✓	✓	✓
Rent			✓	
Furnish		✓		✓
Clothing		✓		
Transport		✓		✓
Recreation		✓		✓
Communication		✓		✓
Health		✓		
Education		✓		
Miscellaneous		✓		

Currency Conversions Using CPI and PPP

The spatial and temporal adjustments described above rendered the nominal consumption aggregates into aggregates reflective of real 2005 prices. Additional currency conversions were necessary to prepare the figures presented in this report.

- The $1.25 2005 PPP poverty threshold was converted to 2005 Kshs by using the Kenyan 2005 PPP value of 32.68. The $1.25 2005 PPP threshold is equivalent to 40.85 Kshs, per person, per day in 2005 prices.
- Consumption aggregates were converted to 2010 USD by adjusting for 2005 PPP. We converted to 2010 USD by using the formula (1/PPP 2005) * (2010 USD CPI /2005 USD CPI) where PPP 2005 = 32.68, 2010 USD CPI =111.65, and 2005 USD CPI = 100. The conversion factor was 0.03416.
- The CPI values used for the currency conversions listed here were taken from the World Bank's Databank.[78] CPI values were adjusted to a base year of 2005 from a base year of 2010.

Weights

Expenditure estimates are reflective of the consumption and poverty of individuals within the ZOI. The data are collected at the household level, and individual estimates are produced by multiplying the household sampling weight by the number of usual household members in the household.

National and Extreme Poverty Thresholds[79]

The KNBS identified national poverty lines using data from the KIHBS 2005/2006. The poverty lines were estimated using a cost-of-basic-needs approach. Unlike the $1.25 poverty per person per day threshold, the national poverty lines were created for adult equivalents and were developed as monthly amounts. The national absolute poverty line is 1,562 (rural) and 2,913 (urban) Kshs per adult equivalent per month (2005 prices).[80] The national "extreme" poverty lines used in this analysis are the food poverty lines developed in conjunction with the national absolute poverty line. The food poverty lines are the minimum amounts required to provide a minimum caloric intake for an adult and vary based on whether one lives in rural or urban

[78] The World Bank. Consumer Price Index (2010=100). http://data.worldbank.org/indicator/FP.CPI.TOTL. Retrieved on September 18, 2015.

[79] Readers who seek a more thorough description of national poverty estimates and poverty thresholds should consult Chapter 2 of the *Basic Report on Well-Being in Kenya: Based on Kenya Integrated Household Budget Survey – 2005/06* that has been prepared by the KNBS to summarize its analysis of the KIHBS data. http://www.ilo.org/surveydata/index.php/catalog/392/download/4529.

[80] KNBS. (2007a). p. 27.

areas. The food poverty lines are 988 and 1,474 Kshs (2005 prices) per month per adult equivalent in rural and urban areas, respectively.[81]

Estimation of the Poverty Lines

The national poverty lines were derived by first estimating a food poverty line based on the minimum costs needed to consume 2,250 kilocalories. The minimum costs were based on rural and urban food bundles where the food bundles were estimated using those households that were representative of poor households.[82] Using data from the same survey, food costs per metric unit were then applied to the food basket to identify the minimum amount required for an individual to sustain the minimum caloric intake of his or her age and sex group. This formed the basis for the food poverty line.

Non-food requirements were estimated iteratively by identifying the non-food expenses incurred by households living at or slightly above/below the food poverty line. The non-food requirements were added to the food poverty line to form the absolute poverty line, which has been presented in this report as the national poverty line. All poverty lines were estimated separately for urban and rural areas.[83]

Adult Equivalents

As discussed, the national absolute and food poverty lines are based on an adult equivalent. These poverty lines are not easily compared to a per capita poverty line. In order to estimate poverty according to national poverty thresholds, we created adult equivalents following the Anzagi-Bernard equivalence scales that were used for the analysis of the KIHBS 05/06 data. These equivalence scales weigh those age 0-4 years at 0.24 and those age 5-14 years at 0.65. Those age 15 and older are considered an adult and weighted equally.[84]

To illustrate the difference between per capita and adult equivalent thresholds, assume that a household contains four household members age 29, 26, 12, and 3. The household size is four and the number of adult equivalents in the household is 2.89. Assume that a second household also has four household members, but the ages are 29, 12, 3, and 1. In both cases, there are four household members and both households would require $5 (2005 PPP) per day to meet the $1.25 per capita threshold. However, the two households require different daily consumption totals to meet the national absolute threshold because the households contain different adult equivalents. The first household has 2.89 adult equivalents and would require $4.60 (2005 PPP) to meet the national absolute poverty line while the second household only

[81] Ibid.
[82] Ibid.
[83] Ibid.
[84] Ibid.

has 2.13 adult equivalents and would require $3.39 (2005 PPP) to meet the same national absolute poverty line.

To aid in comparison of how the national poverty thresholds compare to the $1.25 per capita threshold, **Table A2.2** presents national thresholds as an average daily per capita measure. These are averages because households have different national thresholds, as shown in the example above. The national thresholds for the households were determined by first calculating the amount required to meet the national threshold based on the number of adult equivalents in the household. This total household threshold was then divided by the number of household members. Finally, the averages presented in Table A2.2 are the averages of the households used in the assessment.

Table A2.2. National poverty thresholds

Region	Monthly per adult equivalent		Daily per adult equivalent		Average[1] daily per capita	
	2005/6 Shilling	2005 PPP	2005/6 Shilling	2005 PPP	2005/6 Shilling	2005 PPP
National Food Poverty Line						
Rural	988	30.23	32.93	1.01	24.55	0.75
Urban	1,474	45.10	49.13	1.50	38.19	1.17
National Absolute Poverty Line						
Rural	1,562	47.80	52.07	1.59	38.81	1.19
Urban	2,913	89.14	97.10	2.97	75.47	2.31

[1] The national thresholds in per capita terms are averages because households have different national thresholds depending on the sex and age composition of the individuals in the households. These averages were created by identifying the national threshold for a household and then dividing by the number of household members.

International Poverty Threshold of $1.90 (2011 PPP)

In 2011 the International Comparison Program collected data to update the purchasing power parity indexes that are used to standardize consumption across different economies.[85] In late 2015, the World Bank updated the $1.25 (2005 PPP) poverty threshold to a comparable $1.90 (2011 PPP).[86] The update reflects changes in market prices and currencies based on the 2011 PPP maintaining while the substantive level of poverty measured by the $1.25 (2005 PPP) measure. Because future assessments in Kenya are likely to evaluate poverty using the $1.90 (2011 PPP) thresholds, **Table A2.3** has been prepared to provide a comparison for future assessments.

All indicators and analyses presented in this report have utilized the 2005 PPP to convert between Kenyan shillings and U.S. dollars. The only use of the 2011 PPP was to create Table A2.3. The $1.90 (2011 PPP) poverty threshold was converted to 2005 Kenyan shillings by using the Kenya 2011 PPP value of 35.43.[87] The $1.90 (2011 PPP) threshold is equivalent to

[85] The World Bank. (2014).
[86] The World Bank. (2015a).
[87] The World Bank. (2015b).

67.32 Kenyan shillings per person per day in 2011 prices. Using the 2011 CPI of 205.3 and the 2005 CPI of 100, the $1.90 (2011 PPP) threshold is 32.79 Kenyan shillings in 2005 prices.

Table A2.3. Poverty at the $1.90 (2011 PPP)[1] per person per day threshold

Characteristic	Prevalence of poverty[2]		Depth of poverty[3]		Average consumption shortfall of the poor[4]		
	Percent population	n[5]	Percent of poverty line	n[5]	In USD 2011 PPP[c]	Percent of poverty line	n[5]
Total (All households)	36.7	1,160	13.9	1,160	0.72	37.9	352
Gendered household type							
Male and female adults	38.0	834	14.3	834	0.71	37.5	288
Female adult(s) only	34.8	228	13.7	228	0.75	39.4	54
Male adult(s) only	15.2	98	6.8	98	^	^	10
Child(ren) only (no adults)	-	0	-	0	-	-	0
Household size							
Small (1-5 members)	28.7	739	10.9	739	0.72	37.8	157
Medium (6-10 members)	45.2	405	17.2	405	0.72	38.0	188
Large (11+ members)	^	16	^	16	^	^	7
Household educational attainment							
No education	45.3	389	19.2	389	0.80	42.4	140
Less than primary	45.1	249	16.9	249	0.71	37.4	94
Primary	31.1	428	10.0	428	0.61	32.0	113
Secondary or more	4.6	94	1.9	94	^	^	5

^ Results not statistically reliable, n<30.

[1] The international poverty line was updated in 2015. The line is $1.90 (2011 PPP) per person per day.

[2] The prevalence of poverty is the percentage of individuals living below the $1.90 (2011 PPP) per person per day threshold. Poverty prevalence is sometimes referred to as the poverty incidence or poverty headcount ratio.

[3] The depth of poverty, or poverty gap, is the average consumption shortfall multiplied by the prevalence of poverty.

[4] The average consumption shortfall of the poor is the average amount below the poverty threshold of a person in poverty. This value is estimated only among individuals living in households that fall below the poverty threshold.

[5] Records missing information for the disaggregate variables have been excluded from the disaggregated estimates. The unweighted sample size reflects this loss in observations; therefore disaggregates' sample sizes may not total to the aggregated sample size.

Source: FTF FEEDBACK ZOI Interim Survey, Northern Kenya 2015.

The $1.90 (2011 PPP) poverty line in 2005 is 32.79, which is lower than the 40.85 shillings ($1.25 [2005 PPP]) threshold. Because the 2011 PPP threshold is lower than the 2005 PPP threshold, poverty rates under the new threshold are lower than the rates reported in Table 4.2. The poverty prevalence using the 2005 PPP threshold is 47.0 percent whereas the poverty prevalence under the 2011 PPP threshold is 36.7 percent.

A2.3 Criteria for Achieving Adequacy for Women's Empowerment in Agriculture Indicators

The table below presents the Women's Empowerment in Agriculture five dimensions of empowerment, their corresponding empowerment indicators, the survey questions that are used to elicit the data required to establish adequacy or inadequacy for each empowerment indicator, and how adequacy criteria are defined for each empowerment indicator.

Dimension	Indicator name	Survey questions	Aggregation of adequacy criteria	Inadequacy criteria
Production	Input in productive decisions	G2.02 A-C, F How much input did you have in making decisions about: Food crop farming, cash crop farming, livestock raising, fish culture; G5.02 A-D To what extent do you feel you can make your own personal decisions regarding these aspects of household life if you want(ed) to: Agriculture production, what inputs to buy, what types of crops to grow for agricultural production, when or who would take crops to market, livestock raising	Must have at least some input into or can make own personal decisions in at least two decisionmaking areas	Inadequate if individual participates BUT does not have at least some input in decisions; or she does not make the decisions nor feels she could.
Resources	Ownership of assets	G3.02 A-N Who would you say owns most of the [ITEM]? Agricultural land, Large livestock, Small livestock, chicks etc.; Fish pond/equipment; Farm equipment (non-mechanized); Farm equipment (mechanized); Non-farm business equipment; House; Large durables; Small durables; Cell phone; Non-agricultural land (any); Transport	Must own at least one asset, but not only one small asset (chickens, non-mechanized equipment, or small consumer durables)	Inadequate if household does not own any asset or only owns one small asset, or if household owns the type of asset BUT she does not own most of it alone

Dimension	Indicator name	Survey questions	Aggregation of adequacy criteria	Inadequacy criteria
Resources	Purchase, sale, or transfer of assets	G3.03-G3.05 A-G Who would you say can decide whether to sell, give away, rent/mortgage [ITEM] most of the time? G3.06 A-G Who contributes most to decisions regarding a new purchase of [ITEM]? Agricultural land; Large livestock, Small livestock; Chickens etc.; Fish pond; Farm equipment (non-mechanized); Farm equipment (mechanized)	Must be able to decide to sell, give away, or rent at least one asset, but not only chickens and non-mechanized farming equipment	Inadequate if household does not own any asset or only owns one small asset, or household owns the type of asset BUT she does not participate in the decisions (exchange or buy) about it
	Access to and decisions on credit	G3.08-G3.09 A-E Who made the decision to borrow/what to do with money/item borrowed from [SOURCE]? Non-governmental organization (NGO); Informal lender; Formal lender (bank); Friends or relatives; ROSCA (savings/credit group)	Must have made the decision to borrow or what to do with credit from at least one source	Inadequate if household has no credit OR used a source of credit BUT she did not participate in ANY decisions about it
Income	Control over use of income	G2.03 A-F How much input did you have in decisions on the use of income generated from: Food crop, Cash crop, Livestock, Non-farm activities, Wage & salary, Fish culture; G5.02 E-G To what extent do you feel you can make your own personal decisions regarding these aspects of household life if you want(ed) to: Your own wage or salary employment? Minor household expenditures?	Must have some input into decisions on income, but not only minor household expenditures	Inadequate if participates in activity BUT she has no input or little input on decisions about income generated

Dimension	Indicator name	Survey questions	Aggregation of adequacy criteria	Inadequacy criteria
Leadership	Group member	G4.05 A-K Are you a member of any: Agricultural/livestock/ fisheries producer/ market group; Water, forest users', credit or microfinance group; Mutual help or insurance group (including burial societies); Trade and business association; Civic/charitable group; Local government; Religious group; Other women's group; Other group.	Must be an active member of at least one group	Inadequate if not an active member of a group or if unaware of any group in the community or if no group in community
	Speaking in public	G4.01 – G4.03 Do you feel comfortable speaking up in public: To help decide on infrastructure (like small wells, roads) to be built? To ensure proper payment of wages for public work or other similar programs? To protest the misbehavior of authorities or elected officials?	Must feel comfortable speaking in at least one public setting	Inadequate if not at all comfortable speaking in public
Time	Workload	G6 Worked more than 10.5 hours in previous 24 hours.	Total summed hours spent toward labor must be less than 10.5	Inadequate if works more than 10.5 hours a day
	Leisure	G6.02 How would you rate your satisfaction with your available time for leisure activities like visiting neighbors, watching TV, listening to radio, seeing movies or doing sports?	Must rate satisfaction level as at least five out of 10	Inadequate if not satisfied (<5)

Feed the Future Northern Kenya 2015 Zone of Influence Interim Survey Questionnaire

Disclaimer: The Feed the Future Northern Kenya 2015 Zone of Influence Interim Survey Questionnaire is available on the Development Experience Clearinghouse and/or Development Data Library in the English language only. Should you require the translated version(s) of this questionnaire in Somali, Swahili, and/or Turkana language, please contact the United States Agency for International Development, Bureau for Food Security via email at bfs.mel@usaid.gov.

MODULE A. HOUSEHOLD IDENTIFICATION COVER SHEET

HOUSEHOLD IDENTIFICATION	CODE
A01. HOUSEHOLD IDENTIFICATION	
A02. ENUMERATION AREA/CLUSTER CODE	
A03. VILLAGE	
A04. SUB-LOCATION	
A05. LOCATION	
A06. COUNTY	
A07. GPS COORDINATES OF HOUSEHOLD	° ′ ″

NOTE:

THE **PRIMARY MALE AND PRIMARY FEMALE DECISIONMAKERS** ARE THOSE WHO ARE AGE 18 OR OLDER, AND WHO SELF-IDENTIFY AS THE PRIMARY MALE AND/OR PRIMARY FEMALE MEMBERS RESPONSIBLE FOR THE DECISIONMAKING, BOTH SOCIAL AND ECONOMIC, WITHIN THE HOUSEHOLD.

IN HOUSEHOLDS WITH BOTH MALE AND FEMALE DECISIONMAKERS, THE PRIMARY MALE AND PRIMARY FEMALE DECISIONMAKERS ARE USUALLY HUSBAND AND WIFE; HOWEVER THEY CAN ALSO BE OTHER HOUSEHOLD MEMBERS, AS LONG AS THEY ARE AGED 18 AND OVER.

A09. INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY / MONTH / YEAR
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER
RESULT*	_____	_____	_____	RESULT
NEXT VISIT DATE	_____	_____		TOTAL NUMBER OF VISITS
TIME	_____	_____		

*RESULT CODES:

1 COMPLETED
2 NOT HOME
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD
4 POSTPONED/UNAVAILABLE
5 REFUSED
6 DWELLING VACANT
7 NOT A DWELLING
8 DWELLING DESTROYED
9 DWELLING NOT FOUND
10 TOO ILL TO RESPOND/COGNITIVELY IMPAIRED
11 OTHER (SPECIFY) _____
12 PARTIAL COMPLETE

A10. TOTAL PERSONS IN HOUSEHOLD

A11. TOTAL NUMBER OF WOMEN 15-49

A12. TOTAL NUMBER OF CHILDREN AGE 0-5

A13. LINE NO. OF RESPONDENT TO MODULE C

A14. SENIOR SUPERVISOR	A15. QC INTERVIEWER	A16. INTERVIEWER CODE
NAME _____	NAME _____	

A17. LANGUAGE OF QUESTIONNAIRE**

A18. LANGUAGE OF INTERVIEW**

A19. NATIVE LANGUAGE OF RESPONDENT**

A20. WAS A TRANSLATOR USED? (YES=1, NO=2)

** LANGUAGE CODES: 1 = BORANA 2 = EMBU 3 = KALENJIN 4 = KAMBA 5 = KIKUYU 6 = KISII 7 = LUHYA1 8 = LUHYA2 9 = LUO 10 = MAASAI 11 = MERU 12 = MIJIKENDA 13 = POKOT 14 = SOMALI 15 = SWAHILI 16 = TURKANA 17 = ENGLISH 18 = OTHER (SPECIFY)

MODULE B(1). INFORMED CONSENT

INTRODUCE THE HOUSEHOLD TO THE SURVEY AND OBTAIN THE CONSENT OF A RESPONSIBLE ADULT IN THE HOUSEHOLD TO PARTICIPATE IN MODULE C & D OF THE QUESTIONNAIRE.

AT THE BEGINNING OF EACH SUBSEQUENT MODULE, YOU WILL BE PROMPTED TO OBTAIN INFORMED CONSENT FROM EACH ELIGIBLE RESPONDENT PRIOR TO INTERVIEWING HIM OR HER.

ASK TO SPEAK WITH A RESPONSIBLE ADULT IN THE HOUSEHOLD:

STATEMENT TO BE READ TO THE RESPONDENT:
Thank you for the opportunity to speak with you. We are a research team from Kimetrica. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition, and well-being of households in this area. Your household has been selected to participate in an interview that includes questions on topics such as your family background, dwelling characteristics, household expenditures and assets, food consumption, and nutrition of women and children. The survey includes questions about the household generally, and questions about individuals within your household, if applicable. The questions about the household and its characteristics will take about 30 minutes to complete. If additional questions are relevant for members of your household, the interview in total will take approximately 3-4 hours to complete. Your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or skip any questions you do not want to answer. Your answers will be completely confidential; we will not share information that identifies you with anyone. After entering the questionnaire into a database, we will destroy all information such as your name, that could link these responses to you.

Do you have any questions about the survey or what I have said? If in the future you have any questions regarding the survey or the interview, or concerns or complaints, we welcome you to contact Kimetrica, by calling +254725926513. We will leave a copy of this statement and our organization's complete contact information with you so that you may contact us at any time.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED 1

CONTINUE WITH HOUSEHOLD ROSTER:

"First, I'd like to ask you about the members of your household."

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED ..... 2 → END. "Thank you very much for your time."

MODULE B(2). INFORMED CONSENT AND CONTACT INFORMATION TO LEAVE WITH THE HOUSEHOLD

Thank you for the opportunity to speak with you. We are a research team from Kimetrica. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition, and well-being of households in this area. Your household has been selected to participate in an interview that includes questions on topics such as your family background, dwelling characteristics, household expenditures and assets, food consumption, and nutrition of women and children. The survey includes questions about the household generally, and questions about individuals within your household, if applicable. The questions about the household and its characteristics will take about 30 minutes to complete. If additional questions are relevant for members of your household, the interview in total will take approximately 3-4 hours to complete. Your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or skip any questions you do not want to answer. Your answers will be completely confidential; we will not share information that identifies you with anyone. After entering the questionnaire into a database, we will destroy all information such as your name, that could link these responses to you.

If in the future you have any questions regarding the survey or the interview, or concerns or complaints, we welcome you to contact Kimetrica, by calling +254725926513. This form is for you so that you will have a record of your participation in the study, and the contact information for the survey organization.

NAME OF SURVEY IMPLEMENTING ORGANIZATION: Kimetrica

NAME OF SURVEY DIRECTOR: Mehari Belachew Mengistue

PHONE NUMBER: +254724516831

MAILING ADDRESS: P.O. Box 1327
__ Village Market_____
__ Nairobi 00621_____

EMAIL ADDRESS: __ mehari.belachew@kimetrica.com

MODULE C. HOUSEHOLD ROSTER AND DEMOGRAPHICS

Household identification (*in data file, each module must be matched with the HH ID*) | | | | | | |

C01a. Who would you say is the primary male decisionmaker in this household? This person should be 18 years old or older.

YES, PRIMARY MALE DECISIONMAKER EXISTS IN HOUSEHOLD 1
NO PRIMARY MALE DECISIONMAKER IN HOUSEHOLD 2

IF THERE IS A PRIMARY MALE DECISIONMAKER, ENTER HIS NAME ON LINE 01 OF THE ROSTER. C02 AND C03 ARE PRE-FILLED FOR THIS LINE NUMBER.

C01b. Who would you say is the primary female decisionmaker in this household? This person should be 18 years old or older.

YES, PRIMARY FEMALE DECISIONMAKER EXISTS IN HOUSEHOLD 1
NO PRIMARY FEMALE DECISIONMAKER IN HOUSEHOLD 2

IF THERE IS A PRIMARY FEMALE DECISIONMAKER, ENTER HER NAME ON LINE 02 OF THE ROSTER. SEX (CO2) IS PRE-FILLED FOR THIS LINE NUMBER. ENTER THE RELATIONSHIP (CO3) OF THE FEMALE DECISIONMAKER TO THE PERSON LISTED ON LINE 01; IF NO ONE IS LISTED ON LINE 01, ENTER CODE "01" FOR CO3.

LINE NUMBER	Now, please tell me the names of all of the other people who usually live here. LIST ALL HOUSEHOLD MEMBERS, THEIR SEX (C02), AND THEIR RELATIONSHIP TO THE PRIMARY DECISIONMAKER NAMED IN LINE 01 (C03), OR NAMED IN LINE 02 IF NO HH MEMBER LISTED ON LINE 01. IF THERE IS NO PRIMARY MALE OR FEMALE DECISIONMAKER IN THE HOUSEHOLD, START THE HOUSEHOLD LISTING ON LINE 03. THEN ASK: Are there any other people who live here, even if they are not at home now? These may include children in school or household members at work. Any other people like small children or infants that we have not listed? Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here? IF YES, COMPLETE LISTING FOR QUESTIONS C02-C03. THEN, ASK QUESTIONS STARTING WITH C04 FOR EACH PERSON ONE AT A TIME.	What is [NAME's] sex? M = 1 F = 2	What is [NAME's] relationship to the primary male decision-maker? IF NO PRIMARY MALE DECISION-MAKER: What is [NAME's] relationship to the primary female decision-maker? SEE CODES BELOW IF NO ADULT DECISION-MAKER: ENTER CODE 16	What is [NAME's] age? IN YEARS IF 95 OR OLDER, ENTER "95"	Did [NAME] stay here last night? YES=1 NO=2	How long has it been since [NAME] has spent the night in this household? SEE CODES BELOW	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILD-REN AGE 0-5	Has [NAME] ever attended school? YES=1 NO=2	Is [NAME] currently attending school? YES=1 NO=2	What is the highest grade of education completed by [NAME]? SEE CODES BELOW	Can [NAME] read and write? SEE CODES BELOW
									IF AGE 3 OR OLDER				
	C01	**C02**	**C03**	**C04**	**C05**	**C06**	**C07**	**C08**	**C09**	**C10**	**C11**	**C12**
01		1	0 1		1→C07 2	1 2 3	01	01	1 2→C12	1 2		
02		2			1→C07 2	1 2 3	02	02	1 2→C12	1 2		
03		1 2			1→C07 2	1 2 3	03	03	1 2→C12	1 2		
04		1 2			1→C07 2	1 2 3	04	04	1 2→C12	1 2		
05		1 2			1→C07 2	1 2 3	05	05	1 2→C12	1 2		
06		1 2			1→C07 2	1 2 3	06	06	1 2→C12	1 2		

C03 RESULT CODES: RELATIONSHIP TO PRIMARY MALE (OR FEMALE, IF NO MALE) DECISIONMAKER:

SELF 01
SPOUSE/PARTNER 02
SON/DAUGHTER 03
SON/DAUGHTER-IN-LAW 04
GRANDSON/ GRANDDAUGHTER 05
MOTHER/FATHER 06
BROTHER/SISTER 07
NEPHEW/NIECE 08
NEPHEW/NIECE OF SPOUSE 09
COUSIN 10
BROTHER/SISTER-IN-LAW 11
MOTHER/FATHER-IN-LAW 12
OTHER RELATIVE 13
SERVANT/MAID 14
LABORER 15
NO DECISIONMAKER AGE 18 OR OLDER IN HOUSEHOLD 16
OTHER RELATIONSHIP 96

C06 RESULT CODES: TIME SINCE SPENT THE NIGHT

CIRCLE 1 IF DAYS; ENTER # OF DAYS IN BOX (1-6)

CIRCLE 2 IF WEEKS; ENTER # OF WEEKS IN BOX (1-5)

CIRCLE 3 IF MONTHS; ENTER # OF MONTHS IN BOX MEMBER HAS BEEN AWAY.

C11 RESULT CODES: EDUCATION

LESS THAN PRIMARY/NO SCHOOL 01
PRIMARY LEVEL 1-3 02
PRIMARY LEVEL 4-8 03
SECONDARY 1-4/O-LEVEL 04
SECONDARY 5-6/A-LEVEL 05
TERTIARY AFTER O-LEVEL 06
UNIVERSITY OR ABOVE 07
TECHNICAL OR VOCATIONAL 08
ADULT LITERACY ONLY (NO FORMAL EDUCATION) 09
KORANIC/RELIGIOUS ONLY (NO FORMAL EDUCATION) 10
DON'T KNOW/NOT APPLICABLE 91

C12 RESULT CODES: LITERACY

CANNOT READ & WRITE 1
CAN SIGN (WRITE) ONLY ... 2
CAN READ ONLY 3
CAN READ & WRITE 4

MODULE C. HOUSEHOLD ROSTER AND DEMOGRAPHICS

Household identification (*in data file, each module must be matched with the HH ID*) | | | | | | |

LINE NUMBER	Now, please tell me the names of all of the other people who usually live here. LIST ALL HOUSEHOLD MEMBERS, THEIR SEX (C02), AND THEIR RELATIONSHIP TO THE PRIMARY DECISIONMAKER NAMED IN LINE 01 (C03), OR NAMED IN LINE 02 IF NO HH MEMBER LISTED ON LINE 01. IF THERE IS NO PRIMARY MALE OR FEMALE DECISIONMAKER IN THE HOUSEHOLD, START THE HOUSEHOLD LISTING ON LINE 03. THEN ASK: Are there any other people who live here, even if they are not at home now? These may include children in school or household members at work. Any other people like small children or infants that we have not listed? Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here? IF YES, COMPLETE LISTING FOR QUESTIONS C02-C03. THEN, ASK QUESTIONS STARTING WITH C04 FOR EACH PERSON, ONE AT A TIME.	What is [NAME's] sex? M = 1 F = 2	What is [NAME's] relationship to the primary male decision-maker? IF NO PRIMARY MALE DECISION-MAKER: What is [NAME's] relationship to the primary female decision-maker? SEE CODES BELOW IF NO ADULT DECISION-MAKER: ENTER CODE 16	What is [NAME's] age? IN YEARS IF 95 OR OLDER, ENTER "95"	Did [NAME] stay here last night? YES=1 NO=2	How long has it been since [NAME] has spent the night in this household? SEE CODES BELOW	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILD-REN AGE 0-5	Has [NAME] ever attended school? YES=1 NO=2	Is [NAME] currently attending school? YES=1 NO=2	What is the highest grade of education completed by [NAME]? SEE CODES BELOW	Can [NAME] read and write? SEE CODES BELOW
											IF AGE 3 OR OLDER		
	C01	**C02**	**C03**	**C04**	**C05**	**C06**	**C07**	**C08**	**C09**	**C10**	**C11**	**C12**
07		1 2			1→C07 2	1 2 3	07	07	1 2→C12	1 2		
08		1 2			1→C07 2	1 2 3	08	08	1 2→C12	1 2		
09		1 2			1→C07 2	1 2 3	09	09	1 2→C12	1 2		
10		1 2			1→C07 2	1 2 3	10	10	1 2→C12	1 2		
11		1 2			1→C07 2	1 2 3	11	11	1 2→C12	1 2		
12		1 2			1→C07 2	1 2 3	12	12	1 2→C12	1 2		
12		1 2			1→C07 2	1 2 3	12	12	1 2→C12	1 2		
13		1 2			1→C07 2	1 2 3	12	12	1 2→C12	1 2		
14		1 2			1→C07 2	1 2 3	12	12	1 2→C12	1 2		
15		1 2			1→C07 2	1 2 3	13	13	1 2→C12	1 2		

C03 RESULT CODES: RELATIONSHIP TO PRIMARY MALE (OR FEMALE, IF NO MALE) DECISIONMAKER:

SELF	01	COUSIN	10
SPOUSE/PARTNER	02	BROTHER/SISTER-IN-LAW	11
SON/DAUGHTER	03	MOTHER/FATHER-IN-LAW	12
SON/DAUGHTER-IN-LAW	04	OTHER RELATIVE	13
GRANDSON/ GRANDDAUGHTER	05	SERVANT/MAID	14
		LABORER	15
MOTHER/FATHER	06	NO DECISIONMAKER AGE 18 OR OLDER IN HOUSEHOLD	16
BROTHER/SISTER	07		
NEPHEW/NIECE	08		
NEPHEW/NIECE OF SPOUSE	09	OTHER RELATIONSHIP	96

C06 RESULT CODES: TIME SINCE HOME

CIRCLE 1 IF DAYS; ENTER # OF DAYS IN BOX (1-6)

CIRCLE 2 IF WEEKS; ENTER # OF WEEKS IN BOX (1-5)

CIRCLE 3 IF MONTHS; ENTER # OF MONTHS IN BOX MEMBER HAS BEEN AWAY

C11 RESULT CODES: EDUCATION

LESS THAN PRIMARY/NO SCHOOL	01
PRIMARY LEVEL 1-3	02
PRIMARY LEVEL 4-8	03
SECONDARY 1-4/O-LEVEL	04
SECONDARY 5-6/A-LEVEL	05
TERTIARY AFTER O-LEVEL	06
UNIVERSITY OR ABOVE	07
TECHNICAL OR VOCATIONAL	08
ADULT LITERACY ONLY (NO FORMAL EDUCATION)	09
KORANIC/RELIGIOUS ONLY (NO FORMAL EDUCATION)	10
DON'T KNOW/NOT APPLICABLE	91

C12 RESULT CODES: LITERACY

CANNOT READ & WRITE	1
CAN SIGN (WRITE) ONLY	2
CAN READ ONLY	3
CAN READ & WRITE	4

MODULE D. DWELLING CHARACTERISTICS

Household identification (*in data file, each module must be matched with the HH ID*) | | | | | | |

CONTINUE INTERVIEWING THE SAME RESPONDENT FROM MODULE C.
"Now I'd like to ask you a few questions about your home."

QNO.	QUESTIONS	RESPONSE CODES
D01.	**OBSERVE (DO NOT ASK)** ROOFTOP MATERIAL (OUTER COVERING):	**D01:TYPE OF ROOF** NATURAL ROOFING NO ROOF ..... 11 THATCH/GRASS ..... 12 DUNG/MUD ..... 13 RUDIMENTARY ROOFING RUSTIC MAT ..... 21 PALM/BAMBOO ..... 22 WOOD PLANKS ..... 23 CORRUGATED IRON ..... 24 TIN CANS ..... 25 PLASTIC SHEETS ..... 26 FINISHED ROOFING METAL ..... 31 WOOD ..... 32 CALAMINE/CEMENT FIBER ..... 33 TILES ..... 34 CONCRETE ..... 35 ROOFING SHINGLES ..... 36 ASBESTOS SHEET ..... 37 OTHER 96
D02.	**OBSERVE (DO NOT ASK)** FLOOR MATERIAL:	**D02:TYPE OF FLOOR** NATURAL FLOOR EARTH/SAND ..... 11 DUNG ..... 12 RUDIMENTARY FLOOR WOOD PLANKS ..... 21 PALM/BAMBOO ..... 22 FINISHED FLOOR PARQUET/POLISHED WOOD ..... 31 VINYL OR ASPHALT STRIPS ..... 32 CERAMIC TILES ..... 33 CEMENT ..... 34 CARPET ..... 35 OTHER 96
D03.	**OBSERVE (DO NOT ASK)** EXTERIOR WALLS:	**D03:TYPE OF WALLS** NATURAL WALLS NO WALLS ..... 11 CANE/PALM/TRUNKS ..... 12 DIRT ..... 13 RUDIMENTARY WALLS BAMBOO WITH MUD ..... 21 STONE WITH MUD ..... 22 UNCOVERED ADOBE ..... 23 PLYWOOD ..... 24 CARDBOARD ..... 25 REUSED WOOD ..... 26 METAL SHEETING ..... 27 FINISHED WALLS CEMENT ..... 31 STONE WITH LIME/CEMENT ..... 32 BRICKS ..... 33 CEMENT BLOCKS ..... 34 COVERED ADOBE ..... 35 WOOD PLANKS/SHINGLES ..... 36 OTHER 96

QNO.	QUESTIONS	RESPONSE CODES
D04.	How many rooms in this dwelling are used for sleeping?	**D04. NUMBER OF ROOMS USED FOR SLEEPING:** ☐☐
D05.	What is the main type of toilet your household uses?	**D05: TYPE OF TOILET** FLUSH OR POUR FLUSH TOILET FLUSH TO PIPED SEWER SYSTEM....11 FLUSH TO SEPTIC TANK....12 FLUSH TO PIT LATRINE....13 FLUSH TO SOMEWHERE ELSE....14 FLUSH, DON'T KNOW WHERE....15 PIT LATRINE VENTILATED IMPROVED PIT LATRINE (VIP)....21 PIT LATRINE WITH SLAB....22 PIT LATRINE WITHOUT SLAB/OPEN PIT....23 COMPOSTING TOILET....31 BUCKET TOILET....41 HANGING TOILET/HANGING LATRINE....51 NO FACILITY/BUSH/FIELD....61 → SKIP TO D08 OTHER....96
D06.	Do you share this toilet with other households?	**D06: IF TOILET IS SHARED** YES....1 NO....2 → SKIP TO D08
D07.	How many households use this toilet?	**D07: NUMBER OF HOUSEHOLDS WITH WHOM TOILET IS SHARED** NUMBER OF HOUSEHOLDS (IF LESS THAN 10)....0☐ 10 OR MORE HOUSEHOLDS....95 DON'T KNOW....98
D08.	What is the main source of drinking water for your household?	**D08: MAIN DRINKING WATER SOURCE** PIPED WATER PIPED INTO DWELLING....11 PIPED TO YARD/PLOT....12 PUBLIC TAP/STANDPIPE....13 TUBE WELL OR BOREHOLE....21 DUG WELL PROTECTED WELL....31 UNPROTECTED WELL....32 WATER FROM SPRING PROTECTED SPRING....41 UNPROTECTED SPRING....42 RAINWATER....51 TANKER TRUCK....61 CART WITH SMALL TANK....71 SURFACE WATER (RIVER/DAM/LAKE/ POND/STREAM/CANAL/ IRRIGATION CHANNEL)....81 BOTTLED WATER....91 OTHER....96

QNO.	QUESTIONS	RESPONSE CODES
D09.	Does this household have electricity?	**D09: ELECTRICITY** YES.....1 NO 2
D10.	What is the main source of cooking fuel for your household?	**D10: COOKING FUEL** ELECTRICITY .....01 LIQUID PROPANE GAS .....02 NATURAL GAS .....03 BIOGAS.....04 KEROSENE.....05 COAL, LIGNITE.....06 CHARCOAL.....07 WOOD.....08 STRAW/SHRUBS/GRASS.....09 AGRICULTURAL CROP RESIDUE.....10 ANIMAL DUNG .....11 NO FOOD COOKED IN HOUSEHOLD ...95 OTHER.....96

MODULE E. HOUSEHOLD CONSUMPTION EXPENDITURE

Household identification (*in data file, each module must be matched with the HH ID*) | | | | | | |

ASK THESE QUESTIONS ABOUT ALL HOUSEHOLD MEMBERS. FOR MODULE E1, ASK WHOEVER IS MOST KNOWLEDGEABLE ABOUT THE FOOD THE HOUSEHOLD MEMBERS HAVE EATEN IN THE PAST 7 DAYS. FOR MODULES E2 THROUGH E7, ASK THE PERSON WHO IS MOST KNOWLEDGEABLE ABOUT OTHER HOUSEHOLD EXPENDITURES, INCLUDING NON-FOOD ITEMS THAT HOUSEHOLD MEMBERS HAVE BOUGHT.

CHECK THE INFORMED CONSENT REGISTER AND ENSURE THAT THE RESPONDENT(S) TO MODULE E HAS PREVIOUSLY PROVIDED INFORMED CONSENT; IF NOT, ADMINISTER THE MODULE E INFORMED CONSENT PROCEDURE (ANNEX 3) TO THE RESPONDENT.

"Now I would like to ask you about the kinds of foods that you and other members of your household have eaten over the past 7 days. I'd also like to ask you about items that you or members of your household may have bought in the past 7 days. Please include foods in meals that are shared with other members of the household, as well as foods that individual members of the household may have consumed independently of other family members. First we will ask about foods that were eaten at your home, or at the home of friends or other family. Later we will ask about foods that were purchased already prepared from a restaurant or a vendor."

MODULE E1. FOOD CONSUMPTION OVER PAST 7 DAYS

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Cereals, Grains, and Cereal Products													
Maize straight run (normal flour)	01	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Sifted maize (fine flour)	02	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Maize rice (bran flour)	03	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Maize grain	04	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Green maize	05	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Rice	06	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Finger millet (grain)	07	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Sorghum grain	08	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Pearl millet	09	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Wheat flour	10	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Bread	11	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Buns, scones	12	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Biscuits	13	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Spaghetti, macaroni, pasta	14	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Breakfast cereal	15	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Infant feeding cereals	16	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Millet flour	17	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Sorghum flour	18	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Wheat grain	19	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Roots, Tubers, and Plantains													
Cassava tubers	21	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cassava flour	22	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
White sweet potato	23	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Orange sweet potato	24	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Irish potato	25	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Potato crisps	26	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Plantain, cooking banana	27	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cocoyam	28	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Yam	29	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Arrow root	30	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Nuts and Pulses													
Pigeonpea	36	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Groundnut	37	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Groundnut flour	38	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Soyabean flour	39	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Ground bean (bean flour)	40	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cowpea	41	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Macadamia nuts	42	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Black grams	45	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Green grams	46	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Common bean	47	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Vegetables													
Onion, fresh or processed	51	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cabbage, fresh or processed	52	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Pumpkin leaves, fresh or processed	51	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Kale, fresh or processed	52	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Gathered wild green leaves	53	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Tomato, fresh or processed	54	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cucumber, fresh or processed	55	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Pumpkin/butternut, fresh or processed	56	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Okra/lady finger, fresh or processed	57	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Mushroom, fresh or processed	58	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Amaranths	63	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Spinach	64	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Eggplant	65	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Carrot	66	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Green beans	67	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Bean leaves	68	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cowpea leaves	69	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Meat, Fish, and Animal Products													
Eggs	71	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Dried fish	72	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Fresh fish	73	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Beef	74	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Goat	75	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Pork	76	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Mutton (sheep meat)	77	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Chicken	78	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Other poultry – guinea fowl, doves, etc.	79	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Small animal – rabbit, mice, etc.	80	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Termites or other insects, for example, caterpillar	81	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Tinned meat or fish	82	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Smoked fish	83	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Omena (dagaa) fish	85	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Camel	86	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Fruits													
Mango	91	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Banana	92	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Citrus – lemon, orange, tangerine etc.	93	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Pineapple	94	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Papaya/pawpaw	95	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Guava	96	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Avocado	97	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Wild fruit (wild berries, mulberry, zambarau, etc.)	98	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Apple	99	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Watermelon	100	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Plums	101	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Ebei	102	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Ngakalalio	103	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

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E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Milk and Milk Products													
Fresh milk	111	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Powdered milk	112	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Butter	113	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Soured milk	114	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Yogurt	115	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cheese	116	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Infant feeding formula (for bottle)	117	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Sugar, Fats, and Oil													
Sugar	126	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

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E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Sugar cane (chewing)	127	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cooking oil	128	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Ghee	129	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Jaggery sugar	130	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cooking fat/lard	131	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Margarine	132	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Beverages													
Tea leaves (unprepared)	136	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Coffee – instant (unprepared)	137	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Cocoa/drinking chocolate (Milo/Raha) (unprepared)	138	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Squash (Sobo drink, Quencher, concentrate)	139	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Fruit juice (for example Delmonte juice)	140	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Freezes (flavored ice)	141	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Soft drinks (Coca-cola, Fanta, Sprite, etc.)	142	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Sealed, bottled water (Keringet, Dasani, etc.)	143	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Bottled/canned beer (Tusker, etc.)	144	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Traditional beer (Busaa, Muratina, etc.)	145	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Wine or commercial liquor/spirits	146	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Locally brewed liquor (Changaa, etc.)	147	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Tea bags (unprepared)	151	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Coffee beans – ground (unprepared)	152	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Spices & Miscellaneous													
Salt	156	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Spices	157	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Yeast, baking powder, bicarbonate soda	158	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Tomato sauce (bottle)	159	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Hot sauce (chili, etc.)	160	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Jam, jelly	161	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Sweets, candy, chocolates	162	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Honey	163	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Peanut butter	164	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
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Cooked Foods from Vendors													
Maize – boiled or roasted (vendor)	171	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Chips (vendor)	172	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Cassava – boiled (vendor)	173	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Eggs – boiled (vendor)	174	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Chicken (vendor)	175	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Meat (vendor)	176	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Fish (vendor)	177	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Mandazi, doughnut (vendor)	178	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past 7 days, did you or others in your household eat any [FOOD ITEM]?	How much in total did your household eat in the past 7 days?		How much of what you ate came from purchases?		How much did you spend on what was eaten in the past 7 days? If your family ate part but not all of something you purchased, estimate what you spent only on the part that was consumed.	How much of what you ate came from your household's own production?		CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."	How much of what you ate came from gifts or other sources?		CHECK E1.07A. IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in the market today."
E1.01		**E1.02**	**E1.03A QUANTITY**	**E1.03B UNIT**	**E1.04A QUANTITY**	**E1.04B UNIT**	**E1.05 (KSH)**	**E1.06A QUANTITY**	**E1.06B UNIT**	**E1.06C ESTIMATE (KSH)**	**E1.07A QUANTITY**	**E1.07B UNIT**	**E1.07C ESTIMATE (KSH)**
Samosa/sambusa (vendor)	179	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Meal eaten at restaurant	180	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Sausage/smokies (vendor)	181	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM											
Mkate mayai (egg souffle) (vendor)	182	YES .... 1 NO .....2→ SKIP TO E1.08 DK .....8→ SKIP TO E1.08											

RESPONSE CATEGORIES FOR E1.03b/1.04b/1.06b/1.07b – UNITS

GRAMS.....01	MILLILITRE 12	BUNCH.....16
1/4 KG TIN.....02	TABLESPOON.....13	PIECE/NUMBER 17
1/2 KG TIN.....03	LITRE 14	HEAP.....18
1 KG TIN.....04	DEBE.....15	HANDFUL.....19
KILOGRAMS 05		BOWL 20
GOROGORO.....06		CUP 21
5 KG BAG.....07		GLASS.....22
10 KG BAG.....08		PLATE 23
25 KG BAG.....09		PAKACHA 24
50 KG BAG.....10		
90 KG BAG.....11		

NOTE: ANY UNIT LISTED MUST BE ABLE TO BE CONVERTED TO A STANDARDIZED UNIT. THIS CONVERSION WILL HAPPEN DURING DATA ANALYSIS; IT SHOULD NOT BE DONE IN THE FIELD BY THE INTERVIEWER.

QNO.	QUESTION	RESPONSE CATEGORIES
E1.08	Over the past 7 days, did any people who are not members of your household eat any meals in your household?	YES.....1 NO.....2→ SKIP TO E1.12 DON'T KNOW.....8→ SKIP TO E1.12
E1.09	Over the past 7 days, how many people who are not members of your household ate meals in your household?	**E1.09. NUMBER OF PEOPLE** ☐☐ DON'T KNOW.....98
E1.10	Over the past 7 days, what was the total number of days in which any meal was shared with people who are not members of your household?	**E1.10. NUMBER OF DAYS** ☐☐ DON'T KNOW.....98
E1.11	Over the past 7 days, what was the total number of meals that were shared with people who are not members of your household?	**E1.11. NUMBER OF MEALS** ☐☐ DON'T KNOW.....98
E1.12	Over the past 7 days, did your household purchase pet food for family pets like a cat or a dog?	YES.....1 NO.....2→ GO TO E1.14 DON'T KNOW..... 8→ GO TO E1.14
E1.13	How much did you spend on pet food last week?	ENTER AMOUNT IN KSH: _____ DON'T KNOW..... 999998
E1.14	Over the past 7 days, were there any other expenditures on pets?	YES.....1 NO..... 2→ GO TO MODULE E2 DON'T KNOW..... 8→ GO TO MODULE E2
E1.15	How much did you spend on other purchases for pets last week?	ENTER AMOUNT IN KSH: _____ DON'T KNOW..... 999998

MODULE E2. NON-FOOD EXPENDITURES OVER PAST 7 DAYS

"Now I would like to ask you about items that you or members of your household may have bought in the past week."

ONE WEEK RECALL **ITEM**	ITEM CODE	Over the past 7 days, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E2.01		**E2.02**	**E2.03** **(** KSH)
Charcoal	191	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Paraffin or kerosene	192	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Cigarettes or other tobacco	193	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Candles	194	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Matches	195	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Public transport – Bicycle Taxi (include any used for school under education costs; include any used for obtaining health care under health expenditures)	196	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Public transport – Bus/Minibus (include any used for school under education costs; include any used for obtaining health care under health expenditures)	197	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Public transport – Other (truck, oxcart, etc.) (include any used for school under education costs; include any used for obtaining health care under health expenditures)	198	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Firewood	200	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Other items that you buy or expenses that you incur on a weekly basis	201	YES ..... 1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM	

MODULE E3. NON-FOOD EXPENDITURES OVER PAST 1 MONTH

"Next I would like to ask you about items that you or members of your household may have bought over the past month."

ONE MONTH RECALL **ITEM**	ITEM CODE	Over the past 1 month, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E3.01		**E3.02**	**E3.03** (KSH)
Milling fees for grains (not including cost of grain itself), grain	211	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Bar soap (body soap or clothes soap)	212	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Clothes soap (powder, paste)	213	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Toothpaste, toothbrush	214	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Toilet paper	215	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Glycerine, Vaseline, skin creams	216	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Other personal products (shampoo, razor blades, cosmetics, hair products, etc.)	217	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Donation – to church, charity, beggar, etc.	218	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Petrol or diesel	219	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Service, repair, or parts for motorcycles, cars, or other forms of motorized transportation	220	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Service, repair, or parts for bicycles	221	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Wages paid to servants	222	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	

ONE MONTH RECALL **ITEM**	ITEM CODE	Over the past 1 month, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E3.01		**E3.02**	**E3.03** **(** KSH)
Repairs to household and personal items (radios, watches, etc., excluding battery purchases)	223	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Cooking gas	224	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Utilities: Electricity	225	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Water services and fees (including water usage fees, water tanker services)	226	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Dry cells/batteries	227	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Recharging of batteries, cell phones, etc.	228	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Air time and other telecommunication bills (e.g., phone service, internet)	229	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Household cleaning products	236	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Personal care services (e.g., haircuts, hair dressing, massages)	237	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Contribution to a rotating credit society, burial society, or other community savings group	238	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Loan repayments in monthly installments	239	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Other items that you buy or expenses that you incur on a monthly basis	240	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
HEALTH EXPENDITURES (include estimated value of any in-kind payments, or borrowed amounts) "In-kind means that a payment or exchange is made without the use of money. For example, a person can work to earn food instead of working to earn money."			

ONE MONTH RECALL **ITEM**	ITEM CODE	Over the past 1 month, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E3.01		**E3.02**	**E3.03** **(** KSH)
Anything related to illnesses and injuries, including for medicine, tests, consultations with doctors or specialist	230	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Medical care not related to an illness – preventative health care, pre-natal visits, check-ups, vaccines, etc.	231	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Non-prescription medicines – over-the-counter self-decided medicine	232	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Transportation used to access health-related services or care that did not require an overnight stay in a health facility or traditional healer's dwelling	233	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Other health expenditures	234	YES ..... 1 NO ..... 2→ MODULE E4 DK ..... 8→ MODULE E4	

MODULE E4. NON-FOOD EXPENDITURES OVER PAST 3 MONTHS

"Next I would like to ask you about items that you or members of your household may have bought over the past 3 months."

THREE MONTH RECALL **ITEM**	ITEM CODE	Over the past 3 months, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E4.01		**E4.02**	**E4.03** **(** KSH)
Infant clothing	241	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Baby nappies/diapers	242	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Boy's trousers (for all clothing, exclude uniforms/school clothing)	243	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Boy's shirts	244	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Boy's jackets	245	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Boy's undergarments	246	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Boy's other clothing	247	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Men's trousers	248	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Men's shirts	249	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Men's jackets	250	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Men's undergarments	251	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Men's other clothing	252	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Girl's blouse/shirt	253	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	

THREE MONTH RECALL **ITEM**	ITEM CODE	Over the past 3 months, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E4.01		**E4.02**	**E4.03** (KSH)
Girl's dress/skirt	254	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Girl's undergarments	255	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Girl's other clothing	256	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Women's blouse/shirt	257	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Kikoy (wrap) cloth	258	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Women's dress/skirt	259	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Women's undergarments	260	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Women's other clothing	261	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Boys shoes	262	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Men's shoes	263	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Girl's shoes	264	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Women's shoes	265	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Cloth, thread, other sewing material	266	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Laundry, dry cleaning, tailoring fees	267	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	

THREE MONTH RECALL **ITEM**	ITEM CODE	Over the past 3 months, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E4.01		**E4.02**	**E4.03** (KSH)
Bowls, glassware, plates, silverware, etc.	268	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Cooking utensils (cookpots, stirring spoons, and whisks, etc.)	269	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Cleaning utensils (brooms, brushes, etc.)	270	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Torch/flashlight/lightbulbs	271	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Paraffin lamp (hurricane or pressure)	272	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Stationery items, writing utensils, postage stamps (excluding school related)	273	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Recreational books, newspapers, or magazines (excluding school related)	274	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Music or video cassette or CD/DVD	275	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Admission tickets to recreational activities, such as sporting events, cinemas, national parks, nightclubs, discos, etc.	276	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Night's lodging in rest house or hotel for vacation or personal travel (excluding work, school, or health-related travel)	277	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Miscellaneous household and personal items (bags, umbrellas, lighters, household decorations, etc.)	280	YES ..... 1 NO ..... 2→ MODULE E5 DK ..... 8→ MODULE E5	

MODULE E5. NON-FOOD EXPENDITURES OVER PAST 12 MONTHS

"Now I would like to ask you about items that you or members of your household may have bought over the past 1 year."

ONE YEAR (12 MONTH) RECALL **ITEM**	ITEM CODE	Over the past 1 year (12 months), did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E5.01		**E5.02**	**E5.03** (KSH)
Carpet, rugs, drapes, curtains	291	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Linen – towels, sheets, blankets	292	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Mat – sleeping or for drying grains	293	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Mosquito net	294	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Mattress	295	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Sports & hobby equipment, musical instruments, toys	296	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Film, film processing, camera	297	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Cement	298	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Bricks	299	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Construction timber	300	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Council rates	301	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Formal insurance payments through an institution – health (MASM, etc.), auto, home, life	302	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Government fines, legal fees, taxes, fees for licenses and certificates, etc.	303	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	

ONE YEAR (12 MONTH) RECALL **ITEM**	ITEM CODE	Over the past 1 year (12 months), did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E5.01		**E5.02**	**E5.03** **(** KSH)
Bride price	304	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Marriage ceremony costs, graduation, rite of passage for household members or others	305	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Funeral costs, household members	306	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Funeral costs, non-household members (relatives, neighbors/friends)	307	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
HEALTH EXPENDITURES over last 12 months (include estimated value of any in-kind payments or borrowed amounts) In-kind means that a payment or exchange is made without the use of money. For example, a person can work to earn food instead of working to earn money.			
Hospitalizations or overnight stay in any hospital – total cost for treatment	308	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Travel to and from the medical facility for any overnight stay(s) or hospitalization	309	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Food costs during overnight stay(s) at the medical facility or hospitalization (if not already included above)	310	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Overnight(s) stay at a traditional healer's or faith healer's dwelling – total costs for treatment	311	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Travel costs to the traditional healer's or faith healer's dwelling for overnight stay(s)	312	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Food costs during overnight stay(s) at the traditional healer's or faith healer's dwelling	313	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
EDUCATION EXPENDITURES over last 12 months (include estimated value of any in-kind payments or borrowed amounts)			
School fees (tuition, boarding fees, including extra tuition fees, contribution to PTA, school building, and maintenance)	314	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Expenditures on after-school programs and tutoring	315	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
School books, stationery, and other supplies	316	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	

ONE YEAR (12 MONTH) RECALL **ITEM**	ITEM CODE	Over the past 1 year (12 months), did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E5.01		**E5.02**	**E5.03** (KSH)
School uniform	317	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Transport to and from school	318	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	
Other educational expenditures (e.g., sanitary towels, school trips)	319	YES ..... 1 NO .....2→ NEXT ITEM DK .....8→ NEXT ITEM	

NON-FOOD ITEMS THAT MAY OR MAY NOT HAVE BEEN PURCHASED							
ONE YEAR (12 MONTH) RECALL **ITEM**	ITEM CODE	Over the past 1 year (12 months) did your household gather, purchase, or pay for any [ITEM]? (NOTE THAT THE VALUE OF THESE ITEMS SHOULD BE ENTERED ONLY IF THEY WERE PURCHASED OR USED FOR HOUSEHOLD USE, NOT FOR INVESTMENT PURPOSES)	What was the estimated total quantity of [ITEM] used?		Did your household gather the [ITEM], or did your household purchase or pay for the [ITEM]?	FOR ITEMS THAT WERE GATHERED: What was the total estimated value of [ITEM] that you used?	FOR ITEMS THAT WERE BOUGHT: How much did you spend in total on [ITEM]?
E5.04		E5.05	E5.06a Quantity	E5.06b Unit	E5.06c FILTER	E5.07 (KSH)	E5.08 (KSH)
Woodpoles, bamboo	320	YES ..... 1 NO .....2→ NEXT ITEM			GATHERED.....1 → E5.07 PURCHASED/PAID...2→ E5.08	→ SKIP TO NEXT ITEM	
Grass for thatching roof or other use	321	YES ..... 1 NO .....2→ NEXT ITEM			GATHERED.....1 → E5.07 PURCHASED/PAID...2→ E5.08	→ SKIP TO MODULE E6	

RESPONSE CATEGORIES FOR E5.06b – UNITS

POLE.....25
BALE 26

MODULE E6. HOUSING EXPENDITURES

"Now I'd like to ask you some questions about your home."

QNO.	QUESTION	RESPONSE CATEGORIES
E6.01	Do you own or are purchasing this house, is it provided to you by an employer, do you use it for free, or do you rent this house?	OWN.....1 BEING PURCHASED.....2 EMPLOYER PROVIDES.....3 FREE.....4 → E6.04 RENTED.....5 → E6.05 DON'T KNOW/NON-RESPONSE/NA....91
E6.02	If you sold this dwelling today, how much would you receive for it?	☐☐☐☐☐☐ DON'T KNOW/NON-RESPONSE/NA.....999991
E6.03	How old is this house, in years?	☐☐☐ DON'T KNOW/ NON-RESPONSE/NA.....991 → SKIP TO E6.06
E6.04	If you rented this dwelling out today, how much rent would you receive?	**E6.04A** (KSH) ☐☐☐☐☐ DON'T KNOW/NON-RESPONSE /NA.....99991 → SKIP TO E6.09 **E6.04B UNIT** DAY.....1 WEEK.....2 MONTH.....3 YEAR.....4 DON'T KNOW/ NON-RESPONSE /NA.....99991 → SKIP TO E6.09

QNO.	QUESTION	RESPONSE CATEGORIES
E6.05	How much do you pay to rent this dwelling?	**E6.05A** (KSH) [ ][ ][ ][ ][ ] DON'T KNOW/NON-RESPONSE /NA ..... 99991 → SKIP TO E6.09 **E6.05B UNIT** DAY ..... 1 WEEK ..... 2 MONTH..... 3 YEAR ..... 4 DON'T KNOW/ NON-RESPONSE /NA..... 99991 → SKIP TO E6.09
E6.06	Do you pay a mortgage on this house, that is, a regular payment toward purchasing the house? A mortgage is a legal agreement in which a person borrows money to buy property, for example, a house, and pays back the money over a period of years. If the property is not paid for in full, then the lender of the money can legally take the property and sell it to obtain what they are owed.	YES..... 1 NO ..... 2→ SKIP TO E6.09
E6.07	How often do you make mortgage payments?	ONCE A MONTH..... 1 ONCE EVERY 3 MONTHS ..... 2 ONCE EVERY 6 MONTHS ..... 3 ONCE A YEAR..... 4 OTHER (SPECIFY) 6
E6.08	How much do you pay each time you make a payment on your mortgage?	[ ][ ][ ][ ][ ] AMOUNT IS VARIABLE .....99996 DON'T KNOW/ NON-RESPONSE 99991
E6.09	In the past 1 month, how much did you spend on repairs and maintenance to this house?	[ ][ ][ ][ ][ ] DON'T KNOW/ NON-RESPONSE 99991

MODULE E7. DURABLE GOODS EXPENDITURES

"Now I'd like to ask you some questions about items that may be owned by your household."

ITEM	ITEM CODE	Does your household own a [ITEM]?	How many [ITEM]s do you own?	What is the age of these [ITEM]s? IF MORE THAN ONE ITEM, AVERAGE AGE.	If you wanted to sell one of these [ITEM]s today, how much would you receive? IF MORE THAN ONE, AVERAGE VALUE.	Did you purchase or pay for any of these [ITEM]s in the last 12 months?	How much did you pay for all these [ITEM]s all together (total) in the last 12 months?
E7.01		**E7.02**	**E7.03 NUMBER**	**E7.04 YEAR**	**E7.05** (KSH)	**E7.06**	**E7.07** (KSH)
Fan	341	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Air conditioner	342	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Radio	343	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Tape or CD/DVD player/VCR	344	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Television	345	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Sewing machine	346	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Kerosene/paraffin stove	347	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Electric stove; hot plate	348	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Gas stove	349	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Refrigerator	350	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Washing machine	351	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	

ITEM	ITEM CODE	Does your household own a [ITEM]?	How many [ITEM]s do you own?	What is the age of these [ITEM]s? IF MORE THAN ONE ITEM, AVERAGE AGE.	If you wanted to sell one of these [ITEM]s today, how much would you receive? IF MORE THAN ONE, AVERAGE VALUE.	Did you purchase or pay for any of these [ITEM]s in the last 12 months?	How much did you pay for all these [ITEM]s all together (total) in the last 12 months?
E7.01		**E7.02**	**E7.03 NUMBER**	**E7.04 YEAR**	**E7.05** (KSH)	**E7.06**	**E7.07** (KSH)
Bicycle	352	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Boat	353	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Motorcycle/scooter	354	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Car or other motorized vehicle used to transport people or goods	355	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Upholstered chair, sofa set	356	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Coffee table (for sitting room)	357	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Cupboard, drawers, bureau	358	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Lantern (paraffin)	359	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Desk	360	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Clock	361	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Iron box (for pressing clothes)	362	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Computer equipment and accessories	363	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	

ITEM	ITEM CODE	Does your household own a [ITEM]?	How many [ITEM]s do you own?	What is the age of these [ITEM]s? IF MORE THAN ONE ITEM, AVERAGE AGE.	If you wanted to sell one of these [ITEM]s today, how much would you receive? IF MORE THAN ONE, AVERAGE VALUE.	Did you purchase or pay for any of these [ITEM]s in the last 12 months?	How much did you pay for all these [ITEM]s all together (total) in the last 12 months?
E7.01		**E7.02**	**E7.03 NUMBER**	**E7.04 YEAR**	**E7.05** (KSH)	**E7.06**	**E7.07** (KSH)
Satellite dish	364	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Solar panel	365	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Generator	366	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Water storage tank or water purification system	367	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Charcoal stove	368	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Animal cart	369	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Microwave oven	370	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Vacuum cleaner	371	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Mobile phone	372	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Other small, electric household appliances	373	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Other large electronic products not already reported	374	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Bed	375	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	

ITEM	ITEM CODE	Does your household own a [ITEM]?	How many [ITEM]s do you own?	What is the age of these [ITEM]s? IF MORE THAN ONE ITEM, AVERAGE AGE.	If you wanted to sell one of these [ITEM]s today, how much would you receive? IF MORE THAN ONE, AVERAGE VALUE.	Did you purchase or pay for any of these [ITEM]s in the last 12 months?	How much did you pay for all these [ITEM]s all together (total) in the last 12 months?
E7.01		**E7.02**	**E7.03 NUMBER**	**E7.04 YEAR**	**E7.05** (KSH)	**E7.06**	**E7.07** (KSH)
Dining table	376	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Dining chair	377	YES .....1 NO .....2→ NEXT ITEM DK.....8→ NEXT ITEM				YES.....1 NO.....2→ NEXT ITEM DK.....8→ NEXT ITEM	
Other large piece of furniture not already reported	378	YES .....1 NO .....2→ MODULE F DK.....8→ MODULE F				YES.....1 NO.....2→ GO TO END DK.....8→ GO TO END	

MODULE F. HOUSEHOLD HUNGER SCALE

Household identification (*in data file, each module must be matched with the HH ID*) | | | | | | |

CHECK THE INFORMED CONSENT REGISTER AND ENSURE THAT THE RESPONDENT TO MODULE F HAS PREVIOUSLY PROVIDED INFORMED CONSENT; IF NOT, ADMINISTER THE MODULE F INFORMED CONSENT PROCEDURE (ANNEX 4) TO THE RESPONDENT.

ASK THESE QUESTIONS OF THE PERSON RESPONSIBLE FOR HOUSEHOLD FOOD PREPARATION.

"Moving on to another topic, I'd like to ask you a few questions about the availability of food in your home."

QNO.	QUESTION	RESPONSE
F01	In the past 30 days, was there ever no food to eat of any kind in your house because of lack of resources to get food?	YES ..... 1 NO ..... 2 → GO TO F03 REFUSED ..... 9 → GO TO F03
F02	How often did this happen in the past 30 days?	RARELY (1-2 TIMES) ..... 1 SOMETIMES (3-10 TIMES) ..... 2 OFTEN (MORE THAN 10 TIMES) .... 3 REFUSED 9
F03	In the past 30 days did you or any household member go to sleep at night hungry because there was not enough food?	YES ..... 1 NO ..... 2 → GO TO F05 REFUSED ..... 9 → GO TO F05
F04	How often did this happen in the past 30 days?	RARELY (1-2 TIMES) ..... 1 SOMETIMES (3-10 TIMES) ..... 2 OFTEN (MORE THAN 10 TIMES) ..... 3 REFUSED 9
F05	In the past 30 days did you or any household member go a whole day and night without eating anything at all because there was not enough food?	YES ..... 1 NO ..... 2 → GO TO F2.01A REFUSED ..... 9 → GO TO F2.01A
F06	How often did this happen in the past 30 days?	RARELY (1-2 TIMES) ..... 1 SOMETIMES (3-10 TIMES) ..... 2 OFTEN (MORE THAN 10 TIMES) ..... 3 REFUSED 9

"Now I'm going to ask you some questions about the sources of food and money that your household has relied on over the past year."

Q. NO	QUESTION	RESPONSE
F2.01A	Did your household get food from any of the following sources over the past 12 months? Your household's farming or crop production? Your household's livestock production? Fishing? Hunting? Gathering of wild fruits, vegetables, insects, or other wild foods? **(SELECT ALL THAT APPLY)**	**SELECT ALL THAT APPLY** FARMING OR CROP PRODUCTION.....A LIVESTOCK PRODUCTION .....B FISHING..... C HUNTING ..... D GATHERING OF WILD FRUITS, VEGETABLES, ETC. E OTHER (SPECIFY)_____ X
F2.01B	Did your household get money or goods from selling or bartering any of the following items over the past 12 months? Sale or barter of your household's crops? Sale or barter of your household's livestock? Sale or barter of wild-caught fish? Sale or barter of bushmeat? Sale or barter of other wild products, for example wild fruits or vegetables, honey, firewood, or charcoal? **SELECT ALL THAT APPLY**	**SELECT ALL THAT APPLY** SALE OF YOUR HOUSEHOLD'S CROPS .....A SALE OF YOUR HOUSEHOLD'S LIVESTOCK.....B SALE OF WILD-CAUGHT FISH..... C SALE OF BUSHMEAT ..... D SALE OF OTHER WILD PRODUCTS.....E OTHER (SPECIFY)_____ X
F2.01C	Did your household get money or goods from performing any of the following activities over the past 12 months? Engaging in wage labor Engaging in salaried work Engaging in self-employment, for example in your own business Selling or leasing the household's land or other non-livestock assets **SELECT ALL THAT APPLY**	**SELECT ALL THAT APPLY** WAGE LABOR .....A SALARIED WORK.....B SELF-EMPLOYMENT ..... C SELLING OR LEASING LAND OR OTHER ASSETS... D OTHER (SPECIFY)_____ X
F2.01D	Did your household get money or goods from any of the following sources over the past 12 months? Remittances Gifts Inheritance Borrowing Relief **SELECT ALL THAT APPLY**	**SELECT ALL THAT APPLY** REMITTANCES.....A GIFTS.....B INHERITANCE ..... C BORROWING..... D RELIE .....E OTHER (SPECIFY)_____ X

F2.01E	CHECK ITEMS F2.01A, F2.01B, F2.01C, AND F2.01D. WRITE THE NAME OF EACH CIRCLED RESOURCE FOR EACH OF THESE QUESTIONS ON THE LINES PROVIDED BELOW			
	"You told me that you have obtained food, money, or goods from the following resources: [READ LIST OF RESOURCES OUT LOUD]"	Which of these resources is the most important for providing food or money to support the needs of your household? ENTER A "1" NEXT TO THE SOURCE THE RESPONDENT SAYS IS MOST IMPORTANT …and what is the next most important resource from among these?: [READ REMAINING LIST OUT LOUD] ENTER A "2" NEXT TO THE SOURCE THAT IS SECOND-MOST IMPORTANT. CONTINUE UNTIL ALL REPORTED RESOURCES HAVE BEEN RANKED	Is [RESOURCE] available in the dry season only, wet season only, or all year?	Do you only rely on [RESOURCE] regularly, or only during times of stress?
	F2.02	**F2.03**	**F2.04**	**F2.05**
A	_____	RANK ☐	DRY SEASON..... 1 WET SEASON ..... 2 BOTH 3	REGULARLY .....1 TIMES OF STRESS .2
B	_____	RANK ☐	DRY SEASON..... 1 WET SEASON ..... 2 BOTH 3	REGULARLY .....1 TIMES OF STRESS .2
C	_____	RANK ☐	DRY SEASON..... 1 WET SEASON ..... 2 BOTH 3	REGULARLY .....1 TIMES OF STRESS .2
D	_____	RANK ☐	DRY SEASON..... 1 WET SEASON ..... 2 BOTH 3	REGULARLY .....1 TIMES OF STRESS .2
E	_____	RANK ☐	DRY SEASON..... 1 WET SEASON ..... 2 BOTH 3	REGULARLY .....1 TIMES OF STRESS .2
F	_____	RANK ☐	DRY SEASON..... 1 WET SEASON ..... 2 BOTH 3	REGULARLY .....1 TIMES OF STRESS .2

F206	During the last drought in [INSERT DATE], did your household lean on others for financial or in-kind food support? In-kind means that a payment or exchange is made without the use of money. For example, a person can work to earn food instead of working to earn money. DROUGHT DATES BY COUNTY (BARINGO=2009, TANA RIVER=2013, ISIOLO= 2010/2011, MARSABIT=2013, WAJIR=2012, GARISSA=2011/2012, MANDERA=2013, TURKANA=2014, SABURU=2013/2014).	YES, SOMETIMES.....1 YES, FREQUENTLY .....2 NO ..... 3 → F210
F207	During the last drought, did your household lean on: Relatives in your village or community? Relatives outside your village or community? Non-relatives in your village or community? Non-relatives outside your village or community? Non-relatives outside your tribe or ethnic group? **SELECT ALL THAT APPLY**	**SELECT ALL THAT APPLY** RELATIVES IN VILLAGE/COMMUNITY .....A RELATIVES OUTSIDE VILLAGE/COMM.....B NON-RELATIVES IN VILLAGE/COMM..... C NON-RELATIVES OUTSIDE VILLAGE..... D NON-RELATIVES OUTSIDE TRIBE/ETH.....E OTHER (SPECIFY)_____ X
F208	Why do you think these people shared this financial or in-kind food support with your household? **SELECT ALL THAT APPLY**	**SELECT ALL THAT APPLY** IT IS THEIR OBLIGATION .....A THEY LEAN ON MY HOUSEHOLD WHEN THEY NEED SUPPORT.....B OTHER (SPECIFY)_____ X
F209	Will you be able to lean on these same people for financial or in-kind food support during other times of need, for example during the next drought?	YES .....1 NO .....2 DON'T KNOW 8
F210	Would you say that, after the last drought in [INSERT DATE], the well-being of your household: Did not recover? Recovered, but is **worse off** now than before the drought? Recovered to the **same condition** as before the drought? Recovered and is **better off** than before the drought? Or was your household not affected by the drought? DROUGHT DATES BY COUNTY (BARINGO=2009, TANA RIVER=2013, ISIOLO= 2010/2011, MARSABIT=2013, WAJIR=2012, GARISSA=2011/2012, MANDERA=2013, TURKANA=2014, SABURU=2013/2014).	DID NOT RECOVER.....1 RECOVERED, BUT IS WORSE OFF .....2 RECOVERED TO THE SAME CONDITION .....3 RECOVERED AND IS BETTER OFF .....4 NOT AFFECTED BY THE DROUGHT.....5

F211	Thinking about possible times of need in the future, for example during the next drought, would you say that: …your household is likely to be unable to cope during a time of need; …your household is able to cope by surviving on less money and less-preferred food sources; …or would you say that your household would be able to cope without difficulty?	UNABLE TO COPE ..... 1 ABLE TO COPE BUT LESS MONEY/FOOD ..... 2 ABLE TO COPE WITHOUT DIFFICULTY..... 3 DON'T KNOW 8
F212	Which of the following statements do you most agree with: Each person is responsible for their own success or failure. or Each person's future is a matter of destiny.	EACH PERSON IS RESPONSIBLE FOR THEIR OWN SUCCESS OR FAILURE..... 1 EACH PERSON'S FUTURE IS A MATTER OF DESTINY ..... 2 DON'T KNOW 8
F213A	Over the past 2 years, have members of your household changed the kind of work they do to earn money in order to cope with periods of stress? Cope with stress means to "meet your needs during difficult times."	YES ..... 1 NO ..... 2→ F214A DON'T KNOW ..... 8→ F214A
F213B	How have you or your household members changed the kind of work you do to earn money to cope during periods of stress?	CHANGED TYPE OF WORK DONE TO EARN MONEY ..... 1 TOOK ON AN ADDITIONAL TYPE OF WORK TO EARN MONEY ..... 2 INCREASED THE AMOUNT OF MONEY EARNED FROM EXISTING TYPE OF WORK..... 3 INCREASED SAVINGS..... 4 MIGRATION OF HOUSEHOLD MEMBERS FOR JOB OPPORTUNITIES ELSEWHERE..... 5 OTHER (SPECIFY)_____ 6
F214A	Over the past 2 years, have you or members of your household changed the sources of foods you rely on in order to cope with periods of stress?	YES ..... 1 NO ..... 2→ F215 DON'T KNOW ..... 8→ F215

F214B	How have you or your household members changed the sources of foods you rely on to cope during periods of stress?	CHANGED FOOD SOURCES .....1 ADDED FOOD SOURCES.....2 INCREASED FOOD CONSUMED FROM EXISTING SOURCES.....3 REDUCED FOOD CONSUMPTION .....4 OTHER (SPECIFY)_____ 6
F215	In the past 12 months, has your household been forced to sell livestock, land, or other large productive assets to meet household needs due to a drought, flood, or other household stress?	YES .....1 NO ..... 2→ F217
F216	Which of the following statements best describes the extent to which your household been able to recover or re-purchase the livestock, land, or other large assets: Were you: Unable to recover or repurchase the assets? Able to recover or repurchase some of the assets? Able to recover or repurchase all or more than all of the productive assets that were sold?	UNABLE TO RECOVER/RE-PURCHASE .....1 ABLE TO RECOVER/RE-PURCHASE SOME OF THE PRODUCTIVE ASSETS SOLD.....2 ABLE TO RECOVER/RE-PURCHASE ALL OR MORE THAN ALL OF THE PRODUCTIVE ASSETS SOLD 3
F217	In the past 12 months, has your household been forced to sell small livestock, a phone, bicycle or other small productive assets to meet household needs due to a drought, flood, or other household stress?	YES .....1 NO .....2 → SKIP TO MODULE G
F218	Which of the following statements best describes the extent to which your household been able to recover or re-purchase those small productive assets: Were you: Unable to recover or repurchase the assets? Able to recover or repurchase some of the assets? Able to recover or repurchase all or more than all of the productive assets that were sold?	UNABLE TO RECOVER/RE-PURCHASE .....1 ABLE TO RECOVER/RE-PURCHASE SOME OF THE PRODUCTIVE ASSETS SOLD.....2 ABLE TO RECOVER/RE-PURCHASE ALL OR MORE THAN ALL OF THE PRODUCTIVE ASSETS SOLD 3

MODULE G. WOMEN'S EMPOWERMENT IN AGRICULTURE INDEX

THIS QUESTIONNAIRE SHOULD BE ADMINISTERED TO THE PRIMARY FEMALE DECISIONMAKER (AGE 18 OR OLDER) IDENTIFIED ON LINE 02 OF THE HOUSEHOLD ROSTER (SECTION C) OF THE HOUSEHOLD-LEVEL QUESTIONNAIRE.

YOU SHOULD COMPLETE THIS COVER SHEET FOR EACH ELIGIBLE RESPONDENT EVEN IF THE INDIVIDUAL IS NOT AVAILABLE TO BE INTERVIEWED.

PLEASE DOUBLE-CHECK TO ENSURE:

- YOU HAVE COMPLETED THE ROSTER SECTION OF THE HOUSEHOLD QUESTIONNAIRE TO IDENTIFY THE CORRECT PRIMARY FEMALE DECISIONMAKER;
- RESPONDENTS TO THIS MODULE ARE AGE 18 OR OLDER;
- YOU HAVE NOTED THE HOUSEHOLD ID AND INDIVIDUAL ID CORRECTLY FOR THE PERSON YOU ARE ABOUT TO INTERVIEW;
- YOU HAVE SOUGHT TO INTERVIEW THE INDIVIDUAL IN PRIVATE OR WHERE OTHER MEMBERS OF THE HOUSEHOLD CANNOT OVERHEAR OR CONTRIBUTE ANSWERS;
- YOU HAVE CHECKED THE INFORMED CONSENT REGISTER AND ENSURED THAT THE RESPONDENT(S) TO MODULE G HAVE PREVIOUSLY PROVIDED INFORMED CONSENT; IF NOT, ADMINISTER THE MODULE G INFORMED CONSENT PROCEDURE (ANNEX 5) TO THE RESPONDENT(S).

SUB-MODULE G1. INDIVIDUAL IDENTIFICATION

	Code		Code
G1.01. HOUSEHOLD IDENTIFICATION:	☐☐☐☐☐☐	**G1.03.** OUTCOME OF INTERVIEW	COMPLETED..... 1 HOUSEHOLD MEMBER TOO ILL TO RESPOND/COGNITIVELY IMPAIRED..... 2 RESPONDENT NOT AT HOME/TEMPORARILY UNAVAILABLE..... 3 RESPONDENT NOT AT HOME/EXTENDED ABSENCE..... 4 REFUSED..... 5 COULD NOT LOCATE 6
G1.02. NAME OF RESPONDENT CURRENTLY BEING INTERVIEWED (LINE NUMBER FROM ROSTER IN SECTION C HOUSEHOLD ROSTER): **SURNAME, FIRST NAME:**_____	☐☐	**G1.04.** ABILITY TO BE INTERVIEWED ALONE: (SELECT ALL THAT APPLY)	ALONE.....A ADULT FEMALES PRESENT .....B ADULT MALES PRESENT.....C CHILDREN PRESENT.....D

NO.	QUESTION	RESPONSE
G1.05	In what month and year were you born?	☐☐ MONTH DK MONTH.....98 ☐☐☐☐ YEAR DK YEAR.....9998
G1.06	Please tell me how old you are. What was your age at your last birthday? RECORD AGE IN COMPLETED YEARS	☐☐ YEARS IF RESPONDENT KNOWS HER/HIS AGE, SKIP TO G1.08 IF RESPONDENT CANNOT REMEMBER HOW OLD SHE/HE IS, ENTER "98" AND ASK QUESTION G1.07.
G1.07	Are you 18 years old or older?	YES..... 1 NO..... 2 DK..... 8 → RESPONDENT NOT ELIGIBLE FOR THIS MODULE; END MODULE G (WEAI) AND PROCEED TO MODULE H IF RESPONDENT IS ELIGIBLE FOR MODULE H.
G1.08	CHECK G1.05, G1.06, AND G1.07 (IF APPLICABLE): IS THE RESPONDENT 18 YEARS OLD OR OLDER? IF THE INFORMATION IN G1.05, G1.06, AND G1.07 CONFLICTS, DETERMINE WHICH IS MOST ACCURATE USING THE AGE/YEAR OF BIRTH CONSISTENCY CHART AND GUIDANCE FROM YOUR INTERVIEWER'S MANUAL.	YES..... 1 NO..... 2 DK..... 8 → RESPONDENT NOT ELIGIBLE FOR THIS MODULE; END MODULE G (WEAI) AND PROCEED TO MODULE H IF RESPONDENT IS ELIGIBLE FOR MODULE H.
G1.09	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED.....1 YES, LIVING WITH A MAN ..... 2 → GO TO SUB-MODULE G2 NO, NOT IN UNION.....3 REFUSED.....9
G1.10	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED.....1 YES, LIVED WITH A MAN.....2 NO..... 3 → GO TO SUB-MODULE G2 REFUSED.....9
G1.11	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED.....1 DIVORCED.....2 SEPARATED 3

SUB-MODULE G2. ROLE IN HOUSEHOLD DECISIONMAKING AROUND PRODUCTION AND INCOME GENERATION

HOUSEHOLD IDENTIFICATION (IN DATA FILE, EACH SUB-MODULE (G2-G6) MUST BE LINKED WITH HH AND RESPONDENT ID) | | | | | | |

RESPONDENT ID CODE | | |

"Now I'd like to ask you some questions about your participation in certain types of work activities."

ACTIVITY		Did you yourself participate in [ACTIVITY] in the past 12 months (that is, during the past one or two cropping seasons)?	How much input did you have in making decisions about [ACTIVITY]?	How much input did you have in decisions on the use of income generated from [ACTIVITY]
ACTIVITY CODE	**ACTIVITY DESCRIPTION**	**G2.01**	**G2.02**	**G2.03**
A	**Food crop farming:** These are crops that are grown primarily for household food consumption	YES.....1 NO .....2 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT INTO VERY FEW DECISIONS.....01 INPUT INTO SOME DECISIONS .....02 INPUT INTO MOST OR ALL DECISIONS..03 NO DECISION MADE .....93 REFUSED 99	NO INPUT OR INPUT INTO VERY FEW DECISIONS ..... 01 INPUT INTO SOME DECISIONS..... 02 INPUT INTO MOST OR ALL DECISIONS . 03 NO DECISION MADE..... 93 REFUSED..... 99
B	**Cash crop farming:** These are crops that are grown primarily for sale in the market	YES.....1 NO .....2 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT INTO VERY FEW DECISIONS.....01 INPUT INTO SOME DECISIONS .....02 INPUT INTO MOST OR ALL DECISIONS..03 NO DECISION MADE .....93 REFUSED 99	NO INPUT OR INPUT INTO VERY FEW DECISIONS ..... 01 INPUT INTO SOME DECISIONS..... 02 INPUT INTO MOST OR ALL DECISIONS . 03 NO DECISION MADE..... 93 REFUSED..... 99
C	**Livestock raising**	YES.....1 NO .....2 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT INTO VERY FEW DECISIONS.....01 INPUT INTO SOME DECISIONS .....02 INPUT INTO MOST OR ALL DECISIONS..03 NO DECISION MADE .....93 REFUSED 99	NO INPUT OR INPUT INTO VERY FEW DECISIONS ..... 01 INPUT INTO SOME DECISIONS..... 02 INPUT INTO MOST OR ALL DECISIONS . 03 NO DECISION MADE..... 93 REFUSED..... 99
D	**Non-farm economic activities:** This would include things like running a small business, self-employment, buy-and-sell	YES.....1 NO .....2 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT INTO VERY FEW DECISIONS.....01 INPUT INTO SOME DECISIONS .....02 INPUT INTO MOST OR ALL DECISIONS..03 NO DECISION MADE .....93 REFUSED 99	NO INPUT OR INPUT INTO VERY FEW DECISIONS ..... 01 INPUT INTO SOME DECISIONS..... 02 INPUT INTO MOST OR ALL DECISIONS . 03 NO DECISION MADE..... 93 REFUSED..... 99

ACTIVITY		Did you yourself participate in [ACTIVITY] in the past 12 months (that is, during the past one or two cropping seasons)?	How much input did you have in making decisions about [ACTIVITY]?	How much input did you have in decisions on the use of income generated from [ACTIVITY]
ACTIVITY CODE	**ACTIVITY DESCRIPTION**	**G2.01**	**G2.02**	**G2.03**
E	**Wage and salary employment:** This could be work that is paid for in cash or in-kind, including both agriculture and other wage work. In-kind means that a payment or exchange is made without the use of money. For example, a person can work to earn food instead of working to earn money	YES..... 1 NO ..... 2 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT INTO VERY FEW DECISIONS.....01 INPUT INTO SOME DECISIONS .....02 INPUT INTO MOST OR ALL DECISIONS..03 NO DECISION MADE .....93 REFUSED 99	NO INPUT OR INPUT INTO VERY FEW DECISIONS ..... 01 INPUT INTO SOME DECISIONS..... 02 INPUT INTO MOST OR ALL DECISIONS . 03 NO DECISION MADE..... 93 REFUSED..... 99
F	**Fishing or fishpond culture**	YES..... 1 NO ..... 2 → SKIP TO MODULE G3	NO INPUT OR INPUT INTO VERY FEW DECISIONS.....01 INPUT INTO SOME DECISIONS .....02 INPUT INTO MOST OR ALL DECISIONS..03 NO DECISION MADE .....93 REFUSED 99	NO INPUT OR INPUT INTO VERY FEW DECISIONS ..... 01 INPUT INTO SOME DECISIONS..... 02 INPUT INTO MOST OR ALL DECISIONS . 03 NO DECISION MADE..... 93 REFUSED..... 99

SUB-MODULE G3(A). ACCESS TO PRODUCTIVE CAPITAL

“Now I’d like to ask you about your household’s ownership of a number of items that could be used to generate income.”

PRODUCTIVE CAPITAL		Does anyone in your household currently have any [ITEM]?	How many of [ITEM] does your household currently have?	Who would you say owns most of the [ITEM]? **CIRCLE ALL APPLICABLE**	Who would you say can decide whether to sell [ITEM] most of the time? **CIRCLE ALL APPLICABLE**	Who would you say can decide whether to give away [ITEM] most of the time? **CIRCLE ALL APPLICABLE**	Who would you say can decide to mortgage or rent out [ITEM] most of the time? **CIRCLE ALL APPLICABLE**	Who contributes most to decisions regarding a new purchase of [ITEM]? **CIRCLE ALL APPLICABLE**
PRODUCTIVE CAPITAL		**G3.01a**	**G3.01b**	**G3.02**	**G3.03**	**G3.04**	**G3.05**	**G3.06**
A	Agricultural land (pieces/plots)	YES ....1 NO.............. 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9
B	Large livestock (cattle, camels, donkeys)	YES ....1 NO.............. 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9
C	Small livestock (goats, pigs, sheep)	YES ....1 NO.............. 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9
D	Chickens, ducks, turkeys, pigeons, or other birds	YES ....1 NO.............. 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9
E	Fish pond or fishing equipment	YES ....1 NO.............. 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9
F	Farm equipment (non-mechanized: hand tools, ox plough)	YES ....1 NO.............. 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9
G	Farm equipment (mechanized: tractor-drawn plough, power tiller, treadle pump)	YES ....1 NO.............. 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9	SELF ....A PARTNER/SPOUSE........B OTHER HH MEMBER........C OTHER NON-HH MEMBER..D NOT APPLICABLE........Z REFUSED........9

PRODUCTIVE CAPITAL		Does anyone in your household currently have any [ITEM]?	How many of [ITEM] does your household currently have?	Who would you say owns most of the [ITEM]? **CIRCLE ALL APPLICABLE**	Who would you say can decide whether to sell [ITEM] most of the time? **CIRCLE ALL APPLICABLE**	Who would you say can decide whether to give away [ITEM] most of the time? **CIRCLE ALL APPLICABLE**	Who would you say can decide to mortgage or rent out [ITEM] most of the time? **CIRCLE ALL APPLICABLE**	Who contributes most to decisions regarding a new purchase of [ITEM]? **CIRCLE ALL APPLICABLE**
PRODUCTIVE CAPITAL		**G3.01a**	**G3.01b**	**G3.02**	**G3.03**	**G3.04**	**G3.05**	**G3.06**
H	Non-farm business equipment (solar panels used for recharging, sewing machine, brewing equipment, fryers)	YES .....1 NO..... 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ..... A PARTNER/SPOUSE..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER.. D NOT APPLICABLE ..... Z REFUSED 9				
I	House or other structures	YES .....1 NO..... 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ..... A PARTNER/SPOUSE..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER.. D NOT APPLICABLE ..... Z REFUSED 9				
J	Large consumer durables (refrigerator, TV, sofa)	YES .....1 NO..... 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ..... A PARTNER/SPOUSE..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER.. D NOT APPLICABLE ..... Z REFUSED 9				
K	Small consumer durables (radio, cookware)	YES .....1 NO..... 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ..... A PARTNER/SPOUSE..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER.. D NOT APPLICABLE ..... Z REFUSED 9				
L	Cell phone	YES .....1 NO..... 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ..... A PARTNER/SPOUSE..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER.. D NOT APPLICABLE ..... Z REFUSED 9				
M	Other land not used for agricultural purposes (pieces/plots, residential or commercial land)	YES .....1 NO..... 2→ SKIP TO REFUSED.... 9→ NEXT ITEM		SELF ..... A PARTNER/SPOUSE..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER.. D NOT APPLICABLE ..... Z REFUSED 9				
N	Means of transportation (bicycle, motorcycle, car)	YES .....1 NO..... 2→ SKIP TO REFUSED.... 9→ MODULE G3(B)		SELF ..... A PARTNER/SPOUSE..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER.. D NOT APPLICABLE ..... Z REFUSED 9				

SUB-MODULE G3(B). ACCESS TO CREDIT

"Next I'd like to ask about your household's experience with borrowing money or other items in the past 12 months."

LENDING SOURCES		Has anyone in your household taken any loans or borrowed cash/in-kind from [SOURCE] in the past 12 months? In-kind means that a payment or exchange is made without the use of money. For example, a person can work to earn food instead of working to earn money.	Who made the decision to borrow from [SOURCE]? **CIRCLE ALL APPLICABLE**	Who makes the decision about what to do with the money/ item borrowed from [SOURCE]? **CIRCLE ALL APPLICABLE**
LENDING SOURCE NAMES		**G3.07**	**G3.08**	**G3.09**
A	Non-governmental organization (NGO)	YES, CASH ..... 1 YES, IN-KIND ..... 2 YES, CASH AND IN-KIND ..... 3 NO ..... 4 → GO TO NEXT SOURCE DON'T KNOW ..... 8 → GO TO NEXT SOURCE REFUSED ..... 9 → GO TO NEXT SOURCE	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9
B	Informal lender, loan shark	YES, CASH ..... 1 YES, IN-KIND ..... 2 YES, CASH AND IN-KIND ..... 3 NO ..... 4 → GO TO NEXT SOURCE DON'T KNOW ..... 8 → GO TO NEXT SOURCE REFUSED ..... 9 → GO TO NEXT SOURCE	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9
C	Formal lender (bank/financial institution, government)	YES, CASH ..... 1 YES, IN-KIND ..... 2 YES, CASH AND IN-KIND ..... 3 NO ..... 4 → GO TO NEXT SOURCE DON'T KNOW ..... 8 → GO TO NEXT SOURCE REFUSED ..... 9 → GO TO NEXT SOURCE	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9
D	Friends or relatives	YES, CASH ..... 1 YES, IN-KIND ..... 2 YES, CASH AND IN-KIND ..... 3 NO ..... 4 → GO TO NEXT SOURCE DON'T KNOW ..... 8 → GO TO NEXT SOURCE REFUSED ..... 9 → GO TO NEXT SOURCE	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9
E	Group based micro-finance or lending including Village Community Banking (VICOBA) or merry-go-rounds	YES, CASH ..... 1 YES, IN-KIND ..... 2 YES, CASH AND IN-KIND ..... 3 NO ..... 4 → GO TO MODULE G4 DON'T KNOW ..... 8 → GO TO MODULE G4 REFUSED ..... 9 → GO TO MODULE G4	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9	SELF ..... A PARTNER/SPOUSE ..... B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER ..... D NOT APPLICABLE ..... Z REFUSED 9

SUB-MODULE G4(A). INDIVIDUAL LEADERSHIP AND INFLUENCE IN THE COMMUNITY

"Now I have a few questions about how comfortable you feel speaking up in public when the community needs to make important decisions."

QNO.	QUESTION	RESPONSE
G4.01	Do you feel comfortable speaking up in public to help decide on infrastructure (like small wells, roads, water supplies) to be built in your community?	NO, NOT AT ALL COMFORTABLE .....1 YES, BUT WITH DIFFICULTY .....2 YES, COMFORTABLY .....3 NOT APPLICABLE .....5 REFUSED.....9
G4.02	Do you feel comfortable speaking up in public to ensure proper payment of wages for public works or other similar programs?	NO, NOT AT ALL COMFORTABLE .....1 YES, BUT WITH DIFFICULTY .....2 YES, COMFORTABLY .....3 NOT APPLICABLE .....5 REFUSED.....9
G4.03	Do you feel comfortable speaking up in public to protest the misbehavior of authorities or elected officials?	NO, NOT AT ALL COMFORTABLE .....1 YES, BUT WITH DIFFICULTY .....2 YES, COMFORTABLY .....3 NOT APPLICABLE .....5 REFUSED.....9

SUB-MODULE G4(B). GROUP MEMBERSHIP

"The next few questions are about different groups or organizations that may exist in your community."

GROUP MEMBERSHIP		Is there a [GROUP] in your community?	Are you an active member of this [GROUP]?
GROUP CATEGORIES		**G4.04**	**G4.05**
A	Agricultural/livestock/fisheries producer's group (including marketing groups)	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
B	Water users' group	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
C	Forest users' group	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
D	Credit or microfinance group (including Village Community Banking (VICOBA) or merry-go-rounds)	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
E	Mutual help or insurance group (including burial associations)	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
F	Trade and business association	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
G	Civic groups (improving community) or charitable group (helping others)	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
H	Local government	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9

GROUP MEMBERSHIP		Is there a [GROUP] in your community?	Are you an active member of this [GROUP]?
GROUP CATEGORIES		**G4.04**	**G4.05**
I	Religious group	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
J	Youth group	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
K	Education group	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
L	Other women's group ONLY INCLUDE A GROUP HERE IF IT DOES NOT FIT INTO ONE OF THE OTHER CATEGORIES	YES.....1 NO.....2 → SKIP TO NEXT GROUP DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9
M	Any other group or organization (SPECIFY)_____	YES.....1 NO.....2 → SKIP TO MODULE G5A DON'T KNOW.....8	YES.....1 NO .....2 REFUSED.....9

SUB-MODULE G5(A). DECISIONMAKING

"Now I have some questions about making decisions about various aspects of household life."

ACTIVITY		When decisions are made regarding [ACTIVITY], who is it that normally takes the decision? **CIRCLE ALL APPLICABLE**	**FILTER: CHECK G5.01**	To what extent do you feel you can make your own personal decisions regarding these aspects of household life if you want(ed) to?
	ACTIVITY	**G5.01**	**G5.01A**	**G5.02**
A	Getting inputs for agricultural production	SELF .....A SPOUSE/PARTNER.....B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER..... D NOT APPLICABLE .....Z → SKIP TO NEXT ACTIVITY REFUSED.....9 → SKIP TO NEXT ACTIVITY	CHECK G5.01: "SELF" ("A") IS THE ONLY RESPONSE .....1 → GO TO NEXT ACTIVITY "SELF" ("A") IS **NOT** THE ONLY RESPONSE ....2 → GO TO G5.02	NOT AT ALL..... 1 SMALL EXTENT ..... 2 MEDIUM EXTENT..... 3 TO A HIGH EXTENT..... 4 REFUSED 9
B	The types of crops to grow	SELF .....A SPOUSE/PARTNER.....B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER..... D NOT APPLICABLE .....Z → SKIP TO NEXT ACTIVITY REFUSED.....9 → SKIP TO NEXT ACTIVITY	CHECK G5.01: "SELF" ("A") IS THE ONLY RESPONSE .....1 → GO TO NEXT ACTIVITY "SELF" ("A") IS **NOT** THE ONLY RESPONSE ....2 → GO TO G5.02	NOT AT ALL..... 1 SMALL EXTENT ..... 2 MEDIUM EXTENT..... 3 TO A HIGH EXTENT..... 4 REFUSED 9
C	Taking crops to the market (or not)	SELF .....A SPOUSE/PARTNER.....B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER..... D NOT APPLICABLE .....Z → SKIP TO NEXT ACTIVITY REFUSED.....9 → SKIP TO NEXT ACTIVITY	CHECK G5.01: "SELF" ("A") IS THE ONLY RESPONSE .....1 → GO TO NEXT ACTIVITY "SELF" ("A") IS **NOT** THE ONLY RESPONSE ....2 → GO TO G5.02	NOT AT ALL..... 1 SMALL EXTENT ..... 2 MEDIUM EXTENT..... 3 TO A HIGH EXTENT..... 4 REFUSED 9
D	Livestock raising	SELF .....A SPOUSE/PARTNER.....B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER..... D NOT APPLICABLE .....Z → SKIP TO NEXT ACTIVITY REFUSED.....9 → SKIP TO NEXT ACTIVITY	CHECK G5.01: "SELF" ("A") IS THE ONLY RESPONSE .....1 → GO TO NEXT ACTIVITY "SELF" ("A") IS **NOT** THE ONLY RESPONSE ....2 → GO TO G5.02	NOT AT ALL..... 1 SMALL EXTENT ..... 2 MEDIUM EXTENT..... 3 TO A HIGH EXTENT..... 4 REFUSED 9

ACTIVITY		When decisions are made regarding [ACTIVITY], who is it that normally takes the decision? **CIRCLE ALL APPLICABLE**	**FILTER: CHECK G5.01**	To what extent do you feel you can make your own personal decisions regarding these aspects of household life if you want(ed) to?
	ACTIVITY	**G5.01**	**G5.01A**	**G5.02**
E	Your own (singular) wage or salary employment	SELF .....A SPOUSE/PARTNER.....B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER..... D NOT APPLICABLE .....Z → SKIP TO NEXT ACTIVITY REFUSED.....9 → SKIP TO NEXT ACTIVITY	CHECK G5.01: "SELF" ("A") IS THE ONLY RESPONSE .....1 → GO TO NEXT ACTIVITY "SELF" ("A") IS **NOT** THE ONLY RESPONSE ....2 → GO TO G5.02	NOT AT ALL..... 1 SMALL EXTENT ..... 2 MEDIUM EXTENT..... 3 TO A HIGH EXTENT..... 4 REFUSED 9
F	Major household expenditures (such as a large appliance for the house like refrigerator)	SELF .....A SPOUSE/PARTNER.....B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER..... D NOT APPLICABLE .....Z → SKIP TO NEXT ACTIVITY REFUSED.....9 → SKIP TO NEXT ACTIVITY	CHECK G5.01: "SELF" ("A") IS THE ONLY RESPONSE .....1 → GO TO NEXT ACTIVITY "SELF" ("A") IS **NOT** THE ONLY RESPONSE ....2 → GO TO G5.02	NOT AT ALL..... 1 SMALL EXTENT ..... 2 MEDIUM EXTENT..... 3 TO A HIGH EXTENT..... 4 REFUSED 9
G	Minor household expenditures (such as food for daily consumption or other household needs)	SELF .....A SPOUSE/PARTNER.....B OTHER HH MEMBER ..... C OTHER NON-HH MEMBER..... D NOT APPLICABLE .....Z → SKIP TO NEXT MODULE REFUSED.....9 → SKIP TO NEXT MODULE	CHECK G5.01: "SELF" ("A") IS THE ONLY RESPONSE .....1 → GO TO NEXT MODULE "SELF" ("A") IS **NOT** THE ONLY RESPONSE ....2 → GO TO G5.02	NOT AT ALL..... 1 SMALL EXTENT ..... 2 MEDIUM EXTENT..... 3 TO A HIGH EXTENT..... 4 REFUSED 9

SUB-MODULE G6(A). TIME ALLOCATION

G6.01: PLEASE RECORD A LOG OF THE ACTIVITIES FOR THE INDIVIDUAL IN THE LAST COMPLETE 24 HOURS (STARTING YESTERDAY MORNING AT 4 AM, FINISHING 3:59 AM OF THE CURRENT DAY). THE TIME INTERVALS ARE MARKED IN 15 MIN INTERVALS AND ONE TO TWO ACTIVITIES CAN BE MARKED FOR EACH TIME PERIOD BY DRAWING A LINE THROUGH THAT ACTIVITY. IF TWO ACTIVITIES ARE MARKED, THEY SHOULD BE DISTINGUISHED WITH A 1 FOR THE PRIMARY ACTIVITY AND A 2 FOR THE SECONDARY ACTIVITY WRITTEN NEXT TO THE LINES. PLEASE ADMINISTER USING THE PROTOCOL IN THE INTERVIEWER MANUAL.

"Now I'd like to ask you about how you spent your time during the past 24 hours. This will be a detailed accounting. We'll begin from yesterday morning at 4am, and continue through to 4am of this morning."

ACTIVITY CODE	ACTIVITY	NIGHT 4				5				MORNING 6				7				DAY 8				9				10				11				12				13				14				15			
A	SLEEPING AND RESTING																																												
B	EATING AND DRINKING																																													
C	PERSONAL CARE																																													
D	SCHOOL (INCLUDING HOMEWORK)																																													
E	WORK AS EMPLOYED																																												
F	OWN BUSINESS WORK																																												
G	FARMING/LIVESTOCK/FISHING																																												
H	SHOPPING/GETTING SERVICE (INCLUDING HEALTH SERVICES)																																												
I	WEAVING, SEWING, TEXTILE CARE																																												
J	COOKING																																												
K	DOMESTIC WORK (INCLUDING FETCHING WOOD AND WATER)																																												
L	CARE FOR CHILDREN/ADULTS/ELDERLY																																												
M	TRAVEL AND COMMUTING																																												
N	WATCHING TV/LISTENING TO RADIO/READING																																												
O	EXERCISING																																												
P	SOCIAL ACTIVITIES AND HOBBIES																																												
Q	RELIGIOUS ACTIVITIES																																												
X	_____OTHER (SPECIFY)																																												

SUB-MODULE G6(A). (continued) TIME ALLOCATION

ACTIVITY CODE	ACTIVITY	DAY / EVENING / NIGHT 16	17	18	19	20	21	22	23	24	1	2	3
A	SLEEPING AND RESTING												
B	EATING AND DRINKING												
C	PERSONAL CARE												
D	SCHOOL (INCLUDING HOMEWORK)												
E	WORK AS EMPLOYED												
F	OWN BUSINESS WORK												
G	FARMING/LIVESTOCK/FISHING												
H	SHOPPING/GETTING SERVICE (INCLUDING HEALTH SERVICES)												
I	WEAVING, SEWING, TEXTILE CARE												
J	COOKING												
K	DOMESTIC WORK (INCLUDING FETCHING WOOD AND WATER)												
L	CARE FOR CHILDREN/ADULTS/ELDERLY												
M	TRAVEL AND COMMUTING												
N	WATCHING TV/LISTENING TO RADIO/READING												
O	EXERCISING												
P	SOCIAL ACTIVITIES AND HOBBIES												
Q	RELIGIOUS ACTIVITIES												
X	_____OTHER (SPECIFY)												

SUB-MODULE G6(B). SATISFACTION WITH TIME ALLOCATION

QNO.	QUESTION	RESPONSE OPTIONS/INSTRUCTIONS
G6.01B	In the past 24 hours, did you work, either at home or outside the home, more than usual, about the same amount as usual, or less than usual?	MORE THAN USUAL .....1 ABOUT THE SAME AS USUAL .....2 LESS THAN USUAL.....3
G6.02	Next, I am going to ask you a question about how satisfied you are with the time you have to yourself to do things you enjoy. Please give your opinion on a scale of 1 to 10. "1" means you are not satisfied and "10" means you are very satisfied. If you are neither satisfied nor dissatisfied, this would be in the middle, or 5, on the scale. How satisfied are you with your available time for leisure activities like visiting neighbors, watching TV, listening to the radio, seeing movies or doing sports?	SATISFACTION RATING: ☐☐

MODULE H. WOMEN'S ANTHROPOMETRY AND DIETARY DIVERSITY

HOUSEHOLD IDENTIFICATION (IN DATA FILE, EACH RESPONDENT MUST BE MATCHED WITH THE HH ID) | | | | | | |

ASK THESE QUESTIONS OF EACH WOMAN AGE 15-49 YEARS IN THE HOUSEHOLD.

CHECK THE INFORMED CONSENT REGISTER AND ENSURE THAT THE RESPONDENT(S) TO MODULE H HAVE PREVIOUSLY PROVIDED INFORMED CONSENT; IF NOT, ADMINISTER THE MODULE H INFORMED CONSENT PROCEDURE (ANNEX 6) TO THE RESPONDENT(S).

CARRY DUPLICATE COPIES OF THIS MODULE IN CASE THERE ARE MORE THAN FIVE WOMEN OF AGE 15-49 IN THE HOUSEHOLD.

ENSURE THAT THE ENTIRETY OF MODULE H, INCLUDING DIETARY DIVERSITY, IS COMPLETED FOR WOMAN 1 BEFORE MOVING ON TO WOMAN 2.

"In order to learn more about peoples' nutrition in our country, we would like to take measures of your growth – your height and your weight – and we'd also like to learn more about what kinds of foods you eat."

NO.	QUESTION	WOMAN 1	WOMAN 2	WOMAN 3	WOMAN 4	WOMAN 5
H01	WOMAN'S ID CODE AND NAME FROM THE HOUSEHOLD ROSTER	|__|__| NAME:_____________	|__|__| NAME:_____________	|__|__| NAME:_____________	|__|__| NAME:_____________	|__|__| NAME:_____________
H02	In what month and year were you born?	|__|__| MONTH DK MONTH .... 98 |__|__|__|__| YEAR DK YEAR.... 9998	|__|__| MONTH DK MONTH .... 98 |__|__|__|__| YEAR DK YEAR.... 9998	|__|__| MONTH DK MONTH..... 98 |__|__|__|__| YEAR DK YEAR 9998	|__|__| MONTH DK MONTH .... 98 |__|__|__|__| YEAR DK YEAR.... 9998	|__|__| MONTH DK MONTH..... 98 |__|__|__|__| YEAR DK YEAR ... 9998
H03	Please tell me how old you are. What was your age at your last birthday? RECORD AGE IN COMPLETED YEARS	|__|__| YEARS IF RESPONDENT KNOWS HER AGE, SKIP TO H05 IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER "98" AND ASK QUESTION H04.	|__|__| YEARS IF RESPONDENT KNOWS HER AGE, SKIP TO H05 IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER "98" AND ASK QUESTION H04.	|__|__| YEARS IF RESPONDENT KNOWS HER AGE, SKIP TO H05 IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER "98" AND ASK QUESTION H04.	|__|__| YEARS IF RESPONDENT KNOWS HER AGE, SKIP TO H05 IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER "98" AND ASK QUESTION H04.	|__|__| YEARS IF RESPONDENT KNOWS HER AGE, SKIP TO H05 IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER "98" AND ASK QUESTION H04.

NO.	QUESTION	WOMAN 1	WOMAN 2	WOMAN 3	WOMAN 4	WOMAN 5
H04	Are you between the ages of 15 and 49 years old?	YES .....1 NO .....2 DK.....8	YES .....1 NO .....2 DK.....8	YES.....1 NO .....2 DK.....8	YES .....1 NO .....2 DK.....8	YES.....1 NO.....2 DK.....8
H05	CHECK H02, H03, AND H04 (IF APPLICABLE): IS THE RESPONDENT BETWEEN THE AGES OF 15 AND 49 YEARS? IF THE INFORMATION IN H02, H03, AND H04 CONFLICTS, DETERMINE WHICH IS MOST ACCURATE USING THE AGE/YEAR OF BIRTH CONSISTENCY CHART AND GUIDANCE FROM YOUR INTERVIEWER'S MANUAL.	YES .....1 NO .....2 CHECK FOR OTHER WOMEN AGE 15-49 IN THE HOUSEHOLD; IF NONE, SKIP TO MODULE I DK.....8	YES .....1 NO .....2 CHECK FOR OTHER WOMEN AGE 15-49 IN THE HOUSEHOLD; IF NONE, SKIP TO MODULE I DK.....8	YES.....1 NO .....2 CHECK FOR OTHER WOMEN AGE 15-49 IN THE HOUSEHOLD; IF NONE, SKIP TO MODULE I DK.....8	YES .....1 NO .....2 CHECK FOR OTHER WOMEN AGE 15-49 IN THE HOUSEHOLD; IF NONE, SKIP TO MODULE I DK.....8	YES.....1 NO.....2 CHECK FOR OTHER WOMEN AGE 15-49 IN THE HOUSEHOLD; IF NONE, SKIP TO MODULE I DK.....8
	WOMEN'S NUTRITIONAL STATUS					
H06	Are you currently pregnant?	YES .....1 → SKIP TO DIETARY DIVERSITY NO .....2 DK.....8 REFUSED 9	YES .....1 → SKIP TO DIETARY DIVERSITY NO .....2 DK.....8 REFUSED 9	YES.....1 → SKIP TO DIETARY DIVERSITY NO .....2 DK.....8 REFUSED.....9	YES .....1 → SKIP TO DIETARY DIVERSITY NO .....2 DK.....8 REFUSED 9	YES.....1 → SKIP TO DIETARY DIVERSITY NO.....2 DK.....8 REFUSED.....9
H07	WEIGHT IN KILOGRAMS: WEIGH THE WOMAN	KG ☐☐☐.☐ NOT PRESENT.....9994 OTHER.....9996 REFUSED 9999	KG ☐☐☐.☐ NOT PRESENT .....9994 OTHER.....9996 REFUSED 9999	KG ☐☐☐.☐ NOT PRESENT .....9994 OTHER .....9996 REFUSED.....9999	KG ☐☐☐.☐ NOT PRESENT .....9994 OTHER.....9996 REFUSED 9999	KG ☐☐☐.☐ NOT PRESENT .....9994 OTHER .....9996 REFUSED.....9999
H08	HEIGHT IN CENTIMETERS: MEASURE THE WOMAN	CM ☐☐☐.☐ NOT PRESENT.....9994 OTHER.....9996 REFUSED 9999	CM ☐☐☐.☐ NOT PRESENT .....9994 OTHER.....9996 REFUSED 9999	CM ☐☐☐.☐ NOT PRESENT .....9994 OTHER .....9996 REFUSED.....9999	CM ☐☐☐.☐ NOT PRESENT .....9994 OTHER.....9996 REFUSED 9999	CM ☐☐☐.☐ NOT PRESENT .....9994 OTHER .....9996 REFUSED.....9999

NO.	QUESTION	WOMAN 1	WOMAN 2	WOMAN 3	WOMAN 4	WOMAN 5
	WOMEN'S DIETARY DIVERSITY					
	Now I'd like to ask you to describe everything that you ate yesterday during the day or night, whether you ate it while you were at home, or while you were somewhere else. **(A)** Think about when you first woke up yesterday. Did you eat anything at that time? IF YES: Please tell me everything you ate at that time. PROBE: Anything else? CONTINUE PROBING UNTIL RESPONDENT SAYS "NOTHING ELSE," THEN CONTINUE TO PART B. IF NO: CONTINUE TO PART B. **(B)** What did you do after that? Did you eat anything at that time? IF YES: Please tell me everything you ate at that time. PROBE: Anything else? CONTINUE PROBING UNTIL RESPONDENT SAYS "NOTHING ELSE." REPEAT QUESTION B ABOVE UNTIL RESPONDENT SAYS SHE WENT TO SLEEP UNTIL THE NEXT DAY. IF RESPONDENT MENTIONS MIXED DISHES LIKE A PORRIDGE, SAUCE, OR STEW, PROBE: **(C)** What ingredients were in that [mixed dish]? PROBE: Anything else? CONTINUE PROBING UNTIL RESPONDENT SAYS "NOTHING ELSE." AS THE RESPONDENT RECALLS FOODS, ENTER "1" IN THE COLUMN NEXT TO THE FOOD GROUP. IF THE FOOD IS NOT LISTED IN ANY OF THE FOOD GROUPS BELOW, WRITE THE FOOD IN THE BOX LABELED "OTHER FOODS." IF FOODS ARE USED IN SMALL AMOUNTS FOR SEASONING OR AS A CONDIMENT, INCLUDE THEM UNDER THE CONDIMENTS FOOD GROUP. ONCE THE RESPONDENT FINISHES RECALLING FOODS EATEN, READ EACH FOOD GROUP WHERE "1" WAS NOT ENTERED, ASK THE FOLLOWING QUESTION AND ENTER "1" IF RESPONDENT SAYS YES, "2" IF NO, AND "8" IF DON'T KNOW. Yesterday during the day or night, did you drink/eat any [food group items]?					
NO.	**QUESTION**	**WOMAN 1**	**WOMAN 2**	**WOMAN 3**	**WOMAN 4**	**WOMAN 5**
	OTHER FOODS: PLEASE WRITE DOWN OTHER FOODS THAT RESPONDENT MENTIONED, BUT ARE NOT IN THE LIST BELOW, IN THE SPACE TO THE RIGHT OF THIS BOX. THIS WILL ALLOW THE SURVEY SUPERVISOR OR OTHER KNOWLEDGEABLE INDIVIDUAL TO CLASSIFY THE FOOD LATER.	WRITE FOODS EATEN HERE:	WRITE FOODS EATEN HERE:	WRITE FOODS EATEN HERE:	WRITE FOODS EATEN HERE:	WRITE FOODS EATEN HERE:
H14	Food made from grains, such as bread, rice, noodles, porridge, or ugali?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H15	Pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside, or dishes made with these vegetables?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H16	White potatoes, white yams, manioc, cassava, arrowroot, or any other foods made from roots?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H17	Any dark green leafy vegetables such as kale, amaranth, spinach, bean leaves, cowpea leaves, pumpkin leaves, or dishes made with dark green leafy vegetables?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8

NO.	QUESTION	WOMAN 1	WOMAN 2	WOMAN 3	WOMAN 4	WOMAN 5
H17A	Any other vegetables, such as eggplant, okra, sweet peppers, or other vegetables?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H18	Ripe mangoes or ripe papayas?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H18A	Any other fruits such as oranges, wild berries, or other fruits?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H19	Any liver, kidney, heart, or other organ meats from domesticated animals such as beef, camel, pork, lamb, goat, chicken, rabbit, or duck?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H19A	Any meat from camels, for example grilled camel meat, or stews or other dishes made with camel meat?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H19B	Any beef – meat from cattle – for example grilled beef, or stews or other dishes made with beef?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H19C	Any mutton – meat from sheep – for example grilled mutton, or stews or other dishes made with mutton?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H19D	Any goat meat, for example grilled goat, or stews or other dishes made with goat meat?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H19E	Any meat from other domesticated animals, such as pork, chicken, rabbit, or duck?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H20	Any liver, kidney, heart, or other organ meats from wild animals such as gazelle or duiker, wild buffalo, squirrels or rats, baboon or monkey?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H20A	Any flesh from wild animals, such as gazelle or duiker, wild buffalo, squirrels or rats, baboon or monkey?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H22	Eggs?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H23	Fresh or dried fish, shellfish, or seafood?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8

NO.	QUESTION	WOMAN 1	WOMAN 2	WOMAN 3	WOMAN 4	WOMAN 5
H24A	Any foods made from beans, peas, or lentils?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H24B	Any foods made from nuts or seeds?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H25A	Cow's milk, or cheese, yogurt, or other products made from cow's milk?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H25B	Goat's milk, or cheese, yogurt, or other products made from goat's milk?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H25C	Camel's milk, or cheese, yogurt, or other products made from camel's milk?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H25D	Sheep's milk, or cheese, yogurt, or other products made from sheep's milk?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H25E	Any milk, cheese, yogurt, or other products made from any other animals' milk?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H26	Any oil, fats, or butter, or foods made with any of these?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H27	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H28	Condiments for flavor, such as chilies, spices, herbs, or fish powder?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H29	Grubs, snails or insects such as white ants, grasshoppers, or locusts?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
H30	Foods made with red palm oil, red palm nut, or red palm nut pulp sauce?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8

MODULE I. CHILD ANTHROPOMETRY AND INFANT AND YOUNG CHILD FEEDING

HOUSEHOLD IDENTIFICATION (IN DATA FILE, EACH RESPONDENT MUST BE MATCHED WITH THE HH ID) | | | | | | |

IDENTIFY THE PRIMARY CAREGIVER OF EACH CHILD AGE 0-59 MONTHS IN THE HOUSEHOLD. ASK THESE QUESTIONS OF THE PRIMARY CAREGIVER OF EACH CHILD AGED 0–59 MONTHS IN THE HOUSEHOLD. CHECK THE INFORMED CONSENT REGISTER AND ENSURE THAT THE RESPONDENT(S) TO MODULE I HAVE PREVIOUSLY PROVIDED INFORMED CONSENT; IF NOT, ADMINISTER THE MODULE I INFORMED CONSENT PROCEDURE (ANNEX 7) TO THE RESPONDENT(S) (THE PRIMARY CAREGIVER OF EACH CHILD AGED 0–59 MONTHS IN THE HOUSEHOLD).

YOU SHOULD CARRY DUPLICATE COPIES OF THIS MODULE IN CASE THERE ARE MORE THAN FIVE CHILDREN 0-59 MONTHS OLD IN THE HOUSEHOLD.

"In order to learn more about child nutrition in our country, we would like to measure your child(ren)'s growth – their height and their weight – and we'd also like to learn more about what kinds of foods they eat."

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
I01	CAREGIVER'S ID CODE FROM THE HOUSEHOLD ROSTER					
I02	CHILD'S ID CODE AND FIRST NAME FROM THE HOUSEHOLD ROSTER	_____ CHILD'S NAME	_____ CHILD'S NAME	_____ CHILD'S NAME	_____ CHILD'S NAME	_____ CHILD'S NAME
I03	What is [CHILD'S NAME]'s sex?	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2
I04	I would like to ask you some question about [CHILD'S NAME]. What is [his/her] birthday? In what month and year was [CHILD'S NAME] born?	DAY DK DAY.....98 MONTH DK MONTH.....98 YEAR DK YEAR.....9998	DAY DK DAY.....98 MONTH DK MONTH.....98 YEAR DK YEAR.....9998	DAY DK DAY.....98 MONTH DK MONTH.....98 YEAR DK YEAR.....9998	DAY DK DAY.....98 MONTH DK MONTH.....98 YEAR DK YEAR.....9998	DAY DK DAY.....98 MONTH DK MONTH.....98 YEAR DK YEAR.....9998

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
I04A	CHECK I04: IS THE INFORMATION ON THE CHILD'S DAY, MONTH, AND YEAR OF BIRTH COMPLETE?	YES .....1 → SKIP TO I05 NO 2	YES.....1 → SKIP TO I05 NO.....2	YES .... 1 → SKIP TO I05 NO 2	YES.....1 → SKIP TO I05 NO.....2	YES.....1 → SKIP TO I05 NO 2
I04B	Does [CHILD'S NAME] have a health or vaccination card with the birth date recorded?	YES ..... 1 NO ..... 2 DK ..... 8 → SKIP TO I05	YES.....1 NO.....2 DK.....8 → SKIP TO I05	YES ..... 1 NO ..... 2 DK.....8 → SKIP TO I05	YES.....1 NO.....2 DK .....8 → SKIP TO I05	YES.....1 NO ..... 2 DK.....8 → SKIP TO I05
I04C	May I please see the card?	YES .....1 NO .....2 CARD NOT AVAILABLE..8 → SKIP TO I05	YES.....1 NO.....2 CARD NOT AVAILABLE..8 → SKIP TO I05	YES ..... 1 NO ..... 2 CARD NOT AVAILABLE . 8 → SKIP TO I05	YES.....1 NO.....2 CARD NOT AVAILABLE..8 → SKIP TO I05	YES.....1 NO ..... 2 CARD NOT AVAILABLE . 8 → SKIP TO I05
I04D	CONFIRM WITH THE RESPONDENT THAT THE INFORMATION ON THE CARD IS CORRECT. IF THE HEALTH/VACCINATION CARD IS SHOWN AND THE RESPONDENT CONFIRMS THE INFORMATION IS CORRECT, RECORD THE DATE OF BIRTH AS DOCUMENTED ON THE CARD.	☐☐ DAY DK DAY .....98 ☐☐ MONTH DK MONTH ..... 98 ☐☐☐☐ YEAR DK YEAR.... 9998	☐☐ DAY DK DAY.....98 ☐☐ MONTH DK MONTH.....98 ☐☐☐☐ YEAR DK YEAR 9998	☐☐ DAY DK DAY .... 98 ☐☐ MONTH DK MONTH ..... 98 ☐☐☐☐ YEAR DK YEAR.... 9998	☐☐ DAY DK DAY.....98 ☐☐ MONTH DK MONTH ..... 98 ☐☐☐☐ YEAR DK YEAR 9998	☐☐ DAY DK DAY .... 98 ☐☐ MONTH DK MONTH.....98 ☐☐☐☐ YEAR DK YEAR 9998
I05	How old was [CHILD'S NAME] at [his/her] last birthday? RECORD AGE IN COMPLETED YEARS	☐ YEARS	☐ YEARS	☐ YEARS	☐ YEARS	☐ YEARS
I06	How many months old is [CHILD'S NAME]? RECORD AGE IN COMPLETED MONTHS	☐☐ MONTHS	☐☐ MONTHS	☐☐ MONTHS	☐☐ MONTHS	☐☐ MONTHS

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
I07	CHECK I04, I04D, I05, AND I06 TO VERIFY CONSISTENCY					
I07A	CHECK: IS THE YEAR RECORDED IN I04 OR I04D CONSISTENT WITH THE AGE IN YEARS RECORDED IN I05?	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2
107B	ARE YEAR AND MONTH OF BIRTH RECORDED IN I04 OR I04D CONSISTENT WITH AGE IN MONTHS RECORDED IN I06?	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2
107C	CHECK 107A AND 107B: IF THE ANSWER TO A OR B IS "NO," RESOLVE ANY INCONSISTENCIES. IF THE BIRTHDATE WAS RECORDED ON A HEALTH CARD, THIS MAY BE USED AS THE CORRECT DATA SOURCE.					
I08	CHECK I06. IS THE CHILD UNDER 60 MONTHS?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 PROCEED TO NEXT CHILD OR, IF THERE ARE NO OTHER CHILDREN, END MODULE	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 PROCEED TO NEXT CHILD OR, IF THERE ARE NO OTHER CHILDREN, END MODULE	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 PROCEED TO NEXT CHILD OR, IF THERE ARE NO OTHER CHILDREN, END MODULE	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 PROCEED TO NEXT CHILD OR, IF THERE ARE NO OTHER CHILDREN, END MODULE	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 PROCEED TO NEXT CHILD OR, IF THERE ARE NO OTHER CHILDREN, END MODULE
	"Now I would like to assess your child for a condition called "edema," which occurs when too much fluid is retained by the body. It can be related to nutrition. To perform the test, I need to gently press my thumbs on [NAME]'s feet."					
I09	DOES CHILD HAVE EDEMA?	YES ..... 1 NO ..... 2 NOT PRESENT ..... 4 OTHER ..... 6 REFUSED 9	YES ..... 1 NO ..... 2 NOT PRESENT ..... 4 OTHER ..... 6 REFUSED 9	YES ..... 1 NO ..... 2 NOT PRESENT ..... 4 OTHER ..... 6 REFUSED 9	YES ..... 1 NO ..... 2 NOT PRESENT ..... 4 OTHER ..... 6 REFUSED 9	YES ..... 1 NO ..... 2 NOT PRESENT ..... 4 OTHER ..... 6 REFUSED 9
I10	WEIGHT IN KILOGRAMS: WEIGH THE CHILD	KG [ ][ ][ ].[ ] NOT PRESENT ..... 9994 OTHER ..... 9996 REFUSED 9999	KG [ ][ ][ ].[ ] NOT PRESENT ..... 9994 OTHER ..... 9996 REFUSED 9999	KG [ ][ ][ ].[ ] NOT PRESENT ..... 9994 OTHER ..... 9996 REFUSED 9999	KG [ ][ ][ ].[ ] NOT PRESENT ..... 9994 OTHER ..... 9996 REFUSED 9999	KG [ ][ ][ ].[ ] NOT PRESENT ..... 9994 OTHER ..... 9996 REFUSED 9999

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
I11	CHILDREN UNDER 24 MONTHS SHOULD BE MEASURED LYING DOWN; CHILDREN 24 MONTHS OR OLDER SHOULD BE MEASURED STANDING UP. HEIGHT IN CENTIMETERS: MEASURE THE CHILD	CM ☐☐☐.☐ NOT PRESENT..... 9994 OTHER..... 9996 REFUSED..... 9999	CM ☐☐☐.☐ NOT PRESENT..... 9994 OTHER..... 9996 REFUSED..... 9999	CM ☐☐☐.☐ NOT PRESENT..... 9994 OTHER..... 9996 REFUSED..... 9999	CM ☐☐☐.☐ NOT PRESENT..... 9994 OTHER..... 9996 REFUSED..... 9999	CM ☐☐☐.☐ NOT PRESENT..... 9994 OTHER..... 9996 REFUSED..... 9999
I11A	WAS THE CHILD MEASURED LYING DOWN OR STANDING UP?	LYING DOWN..... 1 STANDING UP..... 2 NOT MEASURED ... 6	LYING DOWN..... 1 STANDING UP..... 2 NOT MEASURED ... 6	LYING DOWN..... 1 STANDING UP..... 2 NOT MEASURED ... 6	LYING DOWN..... 1 STANDING UP..... 2 NOT MEASURED.... 6	LYING DOWN..... 1 STANDING UP..... 2 NOT MEASURED ... 6
	EXCLUSIVE BREASTFEEDING AND MINIMUM ACCEPTABLE DIET					
I15	CHECK QUESTION I05. IS THE CHILD UNDER 3 YEARS OF AGE?	YES..... 1 NO..... 2 PROCEED TO NEXT CHILD OR END MODULE	YES..... 1 NO..... 2 PROCEED TO NEXT CHILD OR END MODULE	YES..... 1 NO..... 2 PROCEED TO NEXT CHILD OR END MODULE	YES..... 1 NO..... 2 PROCEED TO NEXT CHILD OR END MODULE	YES..... 1 NO..... 2 PROCEED TO NEXT CHILD OR END MODULE

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
I16	Has [CHILD'S NAME] ever been breastfed?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED ..... 9 SKIP TO I18	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED ..... 9 SKIP TO I18	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED ..... 9 SKIP TO I18	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED ..... 9 SKIP TO I18	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED ..... 9 SKIP TO I18
I17	Was [CHILD'S NAME] breastfed yesterday during the day or at night?	YES .... 1 → SKIP TO I19 NO ..... 2 DON'T KNOW 8	YES ..... 1 → SKIP TO I19 NO ..... 2 DON'T KNOW 8	YES ..... 1 → SKIP TO I19 NO ..... 2 DON'T KNOW 8	YES .... 1 → SKIP TO I19 NO ..... 2 DON'T KNOW 8	YES ..... 1 → SKIP TO I19 NO ..... 2 DON'T KNOW 8
I18	Sometimes babies are fed breast milk in different ways, for example by spoon, cup, or bottle. This can happen when the mother cannot always be with her baby. Sometimes babies are breastfed by another woman or given breast milk from another woman by spoon, cup, bottle, or some other way. This can happen if a mother cannot breastfeed her own baby. Did [CHILD'S NAME] consume breast milk in any of these ways yesterday during the day or at night?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9
I19	Now I would like to ask you about some medicines and vitamins that are sometimes given to infants. Was [CHILD'S NAME] given any vitamin drops or other medicines as drops yesterday during the day or at night?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9
I20	Was [CHILD'S NAME] given any oral rehydration solution yesterday during the day or at night?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 REFUSED 9
	READ THE QUESTIONS BELOW. READ THE LIST OF LIQUIDS ONE BY ONE AND MARK YES OR NO, ACCORDINGLY. Next I would like to ask you about some liquids that [CHILD'S NAME] may have had yesterday during the day or at night. Did [CHILD'S NAME] have any [ITEM FROM LIST]?:					
I21	Plain water?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I22	Infant formula such as Cerelac?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 SKIP TO I24	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 SKIP TO I24	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 SKIP TO I24	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 SKIP TO I24	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8 SKIP TO I24

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
I23	How many times yesterday during the day or at night did [CHILD'S NAME] consume any formula?	☐☐ TIMES DON'T KNOW.....98	☐☐ TIMES DON'T KNOW 98	☐☐ TIMES DON'T KNOW 98	☐☐ TIMES DON'T KNOW.....98	☐☐ TIMES DON'T KNOW 98
I24	Did [CHILD'S NAME] have any milk such as tinned, powdered, or fresh animal milk?	YES .....1 NO .....2 DON'T KNOW .....8 SKIP TO I26	YES.....1 NO.....2 DON'T KNOW.....8 SKIP TO I26	YES.....1 NO .....2 DON'T KNOW.....8 SKIP TO I26	YES .....1 NO .....2 DON'T KNOW .....8 SKIP TO I26	YES.....1 NO.....2 DON'T KNOW.....8 SKIP TO I26
I25	How many times yesterday during the day or at night did [CHILD'S NAME] consume any milk?	☐☐ TIMES DON'T KNOW.....98	☐☐ TIMES DON'T KNOW 98	☐☐ TIMES DON'T KNOW 98	☐☐ TIMES DON'T KNOW.....98	☐☐ TIMES DON'T KNOW 98
I26	Did [CHILD'S NAME] have any juice or juice drinks?	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I27	Clear broth?	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I28	Yogurt?	YES .....1 NO .....2 DON'T KNOW .....8 SKIP TO I30	YES.....1 NO.....2 DON'T KNOW.....8 SKIP TO I30	YES.....1 NO .....2 DON'T KNOW.....8 SKIP TO I30	YES .....1 NO .....2 DON'T KNOW .....8 SKIP TO I30	YES.....1 NO.....2 DON'T KNOW.....8 SKIP TO I30
I29	How many times yesterday during the day or at night did [CHILD'S NAME] consume any yogurt?	☐☐ TIMES DON'T KNOW.....98	☐☐ TIMES DON'T KNOW 98	☐☐ TIMES DON'T KNOW 98	☐☐ TIMES DON'T KNOW.....98	☐☐ TIMES DON'T KNOW 98
I30	Did [CHILD'S NAME] have any thin porridge?	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I31	Any other liquids such as black tea, glucose water, rice water, or other liquids?	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I32	Any other liquids?	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES .....1 NO .....2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8

Now I'd like to ask you to describe everything that [CHILD'S NAME] ate yesterday during the day or night, whether [he/she] ate it while at home, or while somewhere else.

(A) Think about when [CHILD'S NAME] first woke up yesterday. Did [CHILD'S NAME] eat anything at that time?
IF YES: Please tell me everything [child's name] ate at that time. PROBE: Anything else? CONTINUE TO PROBE UNTIL RESPONDENT SAYS "NOTHING ELSE." THEN CONTINUE TO PART B.
IF NO, CONTINUE TO PART B.

(B) What did [CHILD'S NAME] do after that? Did [CHILD'S NAME] eat anything at that time?
IF YES: Please tell me everything [CHILD'S NAME] ate at that time. PROBE: Anything else? CONTINUE TO PROBE UNTIL RESPONDENT SAYS "NOTHING ELSE."
REPEAT QUESTION B UNTIL THE RESPONDENT SAYS THE CHILD WENT TO SLEEP UNTIL THE NEXT DAY.

IF RESPONDENT MENTIONS MIXED DISHES LIKE A PORRIDGE, SAUCE, OR STEW, PROBE:
(C) What ingredients were in that [MIXED DISH]? PROBE: Anything else? CONTINUE TO PROBE UNTIL RESPONDENT SAYS "NOTHING ELSE."

AS THE RESPONDENT RECALLS FOODS, ENTER "1" IN THE RESPONSE BOX NEXT TO THE FOOD GROUP. IF THE FOOD IS NOT LISTED IN ANY OF THE FOOD GROUPS BELOW, WRITE THE FOOD IN THE BOX LABELED "OTHER FOODS." IF FOODS ARE USED IN SMALL AMOUNTS FOR SEASONING OR AS A CONDIMENT, INCLUDE THEM UNDER THE CONDIMENTS FOOD GROUP.

ONCE THE RESPONDENT FINISHES RECALLING FOODS EATEN, READ EACH FOOD GROUP WHERE "1" WAS NOT ENTERED IN THE RESPONSE BOX, ASK THE FOLLOWING QUESTION AND ENTER "1" IF RESPONDENT SAYS YES, "0" IF NO, AND "8" IF DON'T KNOW:

Yesterday, during the day or night, did [CHILD'S NAME] drink/eat any [FOOD GROUP ITEMS]?

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
	OTHER FOODS: PLEASE WRITE DOWN OTHER FOODS (TO THE RIGHT OF THIS BOX) THAT RESPONDENT MENTIONED BUT ARE NOT IN THE LIST BELOW. THIS WILL ALLOW THE SURVEY SUPERVISOR OR OTHER KNOWLEDGEABLE INDIVIDUAL TO CLASSIFY THE FOOD LATER.	WRITE FOODS MENTIONED HERE:	WRITE FOODS MENTIONED HERE:	WRITE FOODS MENTIONED HERE:	WRITE FOODS MENTIONED HERE:	WRITE FOODS MENTIONED HERE:
I33	Food made from grains, such as bread, rice, noodles, porridge, or ugali?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I34	Pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside, or dishes made with these vegetables?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I35	White potatoes, white yams, manioc, cassava, arrowroot, or any other foods made from roots?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I36	Any dark green leafy vegetables such as kale, amaranth, spinach, bean leaves, cowpea leaves, pumpkin leaves, or dishes made with dark green leafy vegetables?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I36A	Any other vegetables, such as eggplant, okra, sweet peppers, or other vegetables?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
I37	Ripe mangoes or ripe papayas?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I37A	Any other fruits such as oranges, wild berries, or other fruits?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I38	Any liver, kidney, heart, or other organ meats from domesticated animals such as beef, camel, pork, lamb, goat, chicken, rabbit, or duck?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I38A	Any meat from camels, for example grilled camel meat, or stews or other dishes made with camel meat?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I38B	Any beef – meat from cattle – for example grilled beef, or stews or other dishes made with beef?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I38C	Any mutton – meat from sheep – for example grilled mutton, or stews or other dishes made with mutton?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I38D	Any goat meat, for example grilled goat, or stews or other dishes made with goat meat?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I38E	Any meat from other domesticated animals, such as pork, chicken, rabbit, or duck?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I39	Any liver, kidney, heart, or other organ meats from wild animals such as gazelle or duiker, wild buffalo, squirrels or rats, baboon or monkey?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I39A	Any flesh from wild animals, such as gazelle or duiker, wild buffalo, squirrels or rats, baboon or monkey?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I41	Eggs?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I42	Fresh or dried fish, shellfish, or seafood?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I43A	Any foods made from beans, peas, or lentils?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8
I43B	Any foods made from nuts or seeds?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO .....2 DON'T KNOW.....8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES.....1 NO.....2 DON'T KNOW.....8

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
I44A	Cow's milk, or cheese, yogurt, or other products made from cow's milk?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I44B	Goat's milk, or cheese, yogurt, or other products made from goat's milk?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I44C	Camel's milk, or cheese, yogurt, or other products made from camel's milk?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I44D	Sheep's milk, or cheese, yogurt, or other products made from sheep's milk?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I44E	Any milk, cheese, yogurt, or other products made from any other animals' milk?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I45	Any oil, fats, or butter, or foods made with any of these?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I46	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I47	Condiments for flavor, such as chilies, spices, herbs, or fish powder?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I48	Grubs, snails or insects such as white ants, grasshoppers, or locusts?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
I49	Foods made with red palm oil, red palm nut, or red palm nut pulp sauce?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
	CHECK CATEGORIES 33-49 IF ALL "NO," GO TO I50 IF AT LEAST ONE "YES" OR ALL "DON'T KNOW," GO TO I51					
I50	Did [CHILD'S NAME] eat any solid, semi-solid, or soft foods yesterday during the day or at night? IF "YES" PROBE: What kind of solid, semi-solid, or soft foods did [CHILD'S NAME] eat?	YES .... 1 GO BACK TO I33–I49 AND RECORD FOODS EATEN. THEN CONTINUE WITH I51. NO .... 2 DON'T KNOW ...... 8 PROCEED TO NEXT CHILD OR END MODULE	YES........................1 GO BACK TO I33–I49 AND RECORD FOODS EATEN. THEN CONTINUE WITH I51. NO.........................2 DON'T KNOW.......8 PROCEED TO NEXT CHILD OR END MODULE	YES........................1 GO BACK TO I33–I49 AND RECORD FOODS EATEN. THEN CONTINUE WITH I51. NO ....2 DON'T KNOW.......8 PROCEED TO NEXT CHILD OR END MODULE	YES .... 1 GO BACK TO I33–I49 AND RECORD FOODS EATEN. THEN CONTINUE WITH I51. NO .... 2 DON'T KNOW ...... 8 PROCEED TO NEXT CHILD OR END MODULE	YES........................1 GO BACK TO I33–I49 AND RECORD FOODS EATEN. THEN CONTINUE WITH I51. NO.........................2 DON'T KNOW.......8 PROCEED TO NEXT CHILD OR END MODULE
I51	How many times did [child's name] eat solid, semi-solid, or soft foods other than liquids yesterday during the day or at night?	TIMES DON'T KNOW.....98	TIMES DON'T KNOW 98	TIMES DON'T KNOW 98	TIMES DON'T KNOW.....98	TIMES DON'T KNOW 98

CONCLUDE THE INTERVIEW:

"Thank you very much for your time in responding to this survey. Your contributions are greatly appreciated."

Annex 1. Template for Country-Specific Event Calendar

The purpose of this event calendar template is to assist in ascertaining dates of birth (month and year) for children identified as age 6 or under in the household roster. The local events calendar should be developed in conjunction with local key informants who have a good knowledge of past events in the areas to be surveyed; the events should be specific to the survey area and population at the [province/district] level. The final calendars should be tested by interviewers during the pilot to ensure that the calendar is appropriate for the local population.

SAMPLE LOCAL EVENTS CALENDAR (INDIA)
Drawn from: World Health Organization. Training Course on Child Growth Assessment. Geneva, WHO, 2008.

Month	Events/Festivals	2002	2003	2004	2005	2006	2007
Margasira	Bhogi	13 Jan	13 Jan	14 Jan	13 Jan	13 Jan	14 Jan
	Sankranti	14 Jan	14 Jan	15 Jan	14 Jan	14 Jan	15 Jan
	Kanuma	15 Jan	15 Jan	16 Jan	15 Jan	15 Jan	16 Jan
Pushya	Republic Day	26 Jan	26 Jan	26 Jan	26 Jan	26 Jan	26 Jan
	Gandhi Vardhanti	30 Jan	30 Jan	30 Jan	30 Jan	30 Jan	30 Jan
Magha	Maha Sivaratri	12 Mar	01 Mar	18 Feb	8 Mar	26 Feb	16 Feb
	Holi	29 Mar	19 Mar	6 Mar	25 Mar	14 Mar	3 Mar
Palgun	Ugadi	13 Apr	2 Apr	21 Mar	9 Apr	30 Mar	20 Mar
	Sri Rama Navami	21 Apr	11 Apr	30 Mar	18 Apr	6 Apr	27 Mar
	Good Friday	29 Mar	18 Apr	9 Apr	25 Mar	14 Apr	6 Apr
	Ambedkar Jayanti	14 Apr	14 Apr	14 Apr	14 Apr	14 Apr	14 Apr
	May Day	1 May	1 May	1 May	1 May	1 May	1 May
Chaitra	Buddha Purnima	26 May	16 May	4 May	23 May	13 May	2 May
	Mrigasira Karthe	8 June	8 June	7 June	8 June	8 June	9 June
Jeshta	Ramzan	6 Dec	26 Nov	15 Nov	4 Nov	25 Oct	14 Oct
	Bakrid	23 Feb	12 Feb	2 Feb	21 Jan	11 Jan	1 Jan
Ashad	Raksha Bandhan	22 Aug	12 Aug	30 Aug	19 Aug	09 Aug	28 Aug
	Varalaxmi Vrathm	16 Aug	8 Aug	27 Aug	12 Aug	04 Aug	24 Aug
	Krishnastami	31 Aug	20 Aug	7 Sep	26 Aug	16 Aug	4 Sept
Sravan	Vinayaka Chavithi	10 Sept	31 Aug	18 Sep	7 Sep	27 Aug	15 Sept
	Moharam	25 Mar	14 Mar	2 Mar	20 Feb	9 Feb	30 Jan
Badra	Gandhi Jayanthi	2 Oct	2 Oct	2 Oct	2 Oct	2 Oct	2 Oct
	Durgastami	13 Oct	3 Oct	21 Oct	11 Oct	30 Sept	19 Oct
	Maharnavami	14 Oct	4 Oct	22 Oct	12 Oct	1 Oct	20 Oct
	Vijayadasami	15 Oct	4 Oct	22 Oct	12 Oct	2 Oct	21 Oct
Ashiyuja	Naraka Chaturdhi	3 Nov	24 Oct	11 Nov	30 Oct	20 Oct	8 Nov
	Deepavali	4 Nov	24 Oct	12 Nov	31 Oct	21 Oct	9 Nov
	Naga Chaviti	8 Nov	28 Oct	16 Nov	5 Nov	26 Oct	14 Nov
Kartika	Nehru Birthday	14 Nov	14 Nov	14 Nov	14 Nov	14 Nov	14 Nov
	Christmas	25 Dec	25 Dec	25 Dec	25 Dec	25 Dec	25 Dec
	Tsunami				26 Dec		

In this sample the months are identified by their local names, feasts, and celebrations with fixed dates as well as those with changing dates are updated annually while chance events, like the tsunami, typhoons, floods, etc., have to be entered as they occur.

Annex 2. Age/Birthdate Consistency Chart for Survey in 2015

The purpose of this chart is to check the consistency of reported ages and dates, and to help resolve any apparent inconsistencies. Please refer to the Interviewer's Manual for instructions on how to use the chart.

AGE/BIRTHDATE CONSISTENCY CHART FOR SURVEY IN 2015

Current Age	Year of birth			Current Age	Year of birth	
	Has not had birthday in	Has already had birthday in			Has not had birthday in	Has already had birthday in
	2015	2015			2015	2015
	Don't know				Don't know	
0	2015	--		30	1985	1986
1	2014	2015		31	1984	1985
2	2013	2014		32	1983	1984
3	2012	2013		33	1982	1983
4	2011	2012		34	1981	1982
5	2010	2011		35	1980	1981
6	2009	2010		36	1979	1980
7	2008	2009		37	1978	1979
8	2007	2008		38	1977	1978
9	2006	2007		39	1976	1977
10	2005	2006		40	1975	1976
11	2004	2005		41	1974	1975
12	2003	2004		42	1973	1974
13	2002	2003		43	1972	1973
14	2001	2002		44	1971	1972
15	2000	2001		45	1970	1971
16	1999	2000		46	1969	1970
17	1998	1999		47	1968	1969
18	1997	1998		48	1967	1968
19	1996	1997		49	1966	1967
20	1995	1996		50	1965	1966
21	1994	1995		51	1964	1965
22	1993	1994		52	1963	1964
23	1992	1993		53	1962	1963
24	1991	1992		54	1961	1962
25	1990	1991		55	1960	1961
26	1989	1990		56	1959	1960
27	1988	1989		57	1959	1959
28	1987	1988		58	1957	1958
29	1986	1987		59	1956	1957

Annex 3. Informed Consent Form for Respondents Answering Module E Who Were Not Consented for the Household Questionnaire

STATEMENT TO BE READ TO THE RESPONDENT:
Thank you for the opportunity to speak with you. We are a research team from Kimetrica. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition, and well-being of households in this area. Your household has been selected to participate in an interview that includes questions on topics such as your family background, dwelling characteristics, household expenditures and assets, food consumption and nutrition of women and children. This part of the survey includes questions on the purchase of food and other items for the household. The questions for this part of the survey will take about 45 minutes to complete. If additional questions are relevant for you to answer, the interview in total will take approximately 1-2 hours to complete. Your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or skip any questions you do not want to answer. Your answers will be completely confidential; we will not share information that identifies you with anyone. After entering the questionnaire into a database, we will destroy all information such as your name that could link these responses to you.

Do you have any questions about the survey or what I have said? If in the future you have any questions regarding the survey or the interview, or concerns or complaints, we welcome you to contact Kimetrica by calling +254725926513. We will leave a copy of this statement and our organization's complete contact information with you so that you may contact us at any time.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____

DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED.....1 ⟶ CONTINUE WITH MODULE E:

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2 ⟶ END. "Thank you very much for your time."

Annex 4. Informed Consent Form for Respondents Answering Module F Who Were Not Consented for Prior Modules

STATEMENT TO BE READ TO THE RESPONDENT:
Thank you for the opportunity to speak with you. We are a research team from Kimetrica. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition, and well-being of households in this area. Your household has been selected to participate in an interview that includes questions on topics such as your family background, dwelling characteristics, household expenditures and assets, food consumption and nutrition of women and children. This part of the survey includes questions about availability of food in the household. The questions for this part of the survey will take about 5 minutes to complete. If additional questions are relevant for you to answer, the interview in total will take approximately 1-2 hours to complete. Your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or skip any questions you do not want to answer. Your answers will be completely confidential; we will not share information that identifies you with anyone. After entering the questionnaire into a database, we will destroy all information such as your name, that could link these responses to you.

Do you have any questions about the survey or what I have said? If in the future you have any questions regarding the survey or the interview, or concerns or complaints, we welcome you to contact Kimetrica by calling +254725926513. We will leave a copy of this statement and our organization's complete contact information with you so that you may contact us at any time.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____

DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED.....1 ⟶ CONTINUE WITH MODULE F:

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2 ⟶ END. "Thank you very much for your time."

Annex 5. Informed Consent Form for Respondents Answering Module G Who Were Not Consented for Prior Modules

STATEMENT TO BE READ TO THE RESPONDENT:
Thank you for the opportunity to speak with you. We are a research team from Kimetrica. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition, and well-being of households in this area. Your household has been selected to participate in an interview that includes questions on topics such as your family background, dwelling characteristics, household expenditures and assets, food consumption and nutrition of women and children. This part of the survey includes questions on how you make decisions about the work you do, and how you spend your time during the day. The questions for this part of the survey will take about 30 minutes to complete. If additional questions are relevant for you to answer, the interview in total will take approximately 1-2 hours to complete. Your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or skip any questions you do not want to answer. Your answers will be completely confidential; we will not share information that identifies you with anyone. After entering the questionnaire into a database, we will destroy all information such as your name, that could link these responses to you.

Do you have any questions about the survey or what I have said? If in the future you have any questions regarding the survey or the interview, or concerns or complaints, we welcome you to contact Kimetrica by calling +254725926513. We will leave a copy of this statement and our organization's complete contact information with you so that you may contact us at any time.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____

DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED.....1 ⟶ CONTINUE WITH MODULE G:

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2 ⟶ END. "Thank you very much for your time."

Annex 6. Informed Consent Form for Respondents Answering Module H (Women 15-49) Who Were Not Consented for Prior Modules

STATEMENT TO BE READ TO THE RESPONDENT:
Thank you for the opportunity to speak with you. We are a research team from Kimetrica. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition, and well-being of households in this area. Your household has been selected to participate in an interview that includes questions on topics such as your family background, dwelling characteristics, household expenditures and assets, food consumption and nutrition of women and children. This part of the survey includes questions on the kinds of foods you eat, and your nutritional status, including measurement of your weight and height. The questions for this part of the survey will take about 20 minutes to complete. Your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or skip any questions you do not want to answer. Your answers will be completely confidential; we will not share information that identifies you with anyone. After entering the questionnaire into a database, we will destroy all information such as your name, that could link these responses to you.

Do you have any questions about the survey or what I have said? If in the future you have any questions regarding the survey or the interview, or concerns or complaints, we welcome you to contact Kimetrica by calling +254725926513. We will leave a copy of this statement and our organization's complete contact information with you so that you may contact us at any time.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____

DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED.....1 ⟶ CONTINUE WITH MODULE H:

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2 ⟶ END. "Thank you very much for your time."

Annex 7. Informed Consent Form for Parents or Primary Caregivers of Children Eligible for Module I (Children 0-59 Months)

STATEMENT TO BE READ TO THE RESPONDENT:
Thank you for the opportunity to speak with you. We are a research team from Kimetrica. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition, and well-being of households in this area. Your household has been selected to participate in an interview that includes questions on topics such as your family background, dwelling characteristics, household expenditures and assets, food consumption and nutrition of women and children. This part of the survey includes questions on the kinds of foods your child eats, and [his/her/their] nutritional status, including measurement of [his/her/their] weight and height. The questions for this part of the survey will take about 20 minutes to complete per child. Your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or skip any questions you do not want to answer. Your answers will be completely confidential; we will not share information that identifies you with anyone. After entering the questionnaire into a database, we will destroy all information such as your name, that could link these responses to you.

Do you have any questions about the survey or what I have said? If in the future you have any questions regarding the survey or the interview, or concerns or complaints, we welcome you to contact Kimetrica by calling +254725926513. We will leave a copy of this statement and our organization's complete contact information with you so that you may contact us at any time.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____

DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED.....1 ⟶ CONTINUE WITH MODULE I:

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2 ⟶ END. "Thank you very much for your time."

Annex 8. Informed Consent Register

INTERVIEWER INSTRUCTIONS: KEEP THIS SHEET IN A SECURE PLACE SO YOU CAN EASILY AND QUICKLY IDENTIFY ELIGIBLE RESPONDENTS FOR DIFFERENT PARTS OF THE SURVEY AND CONFIRM THAT RESPONDENTS HAVE PROVIDED INFORMED CONSENT. USE THE COLUMN FOR INTERVIEWER NOTES TO ADD COMMENTS, REMINDERS, QUESTIONS, OR CONCERNS.

INFORMED CONSENT REGISTER – KENYA

Line Number	First and Last Name	Age	Sex	Interviewer Notes

Addendum (June 2017)

Feed the Future Northern Kenya Zone of Influence Interim Assessment Report (December 2015)

This addendum provides a revision to the population numbers in Table 1.1 and Table 1.2 of the Feed the Future Northern Kenya Interim Assessment Report. The original population values were based on population projections using intercensal growth rates which were unrealistically high. These high growth rates are an artifact of the large amount of change in the census population of certain counties between the 1999 and 2009. The Kenya National Bureau of Statistics (KNBS) is aware of the anomalous growth rates and has provided population projections based on more realistic assumptions. These revised population values are based on these more realistic population projections. The revised values appear in the two tables included in this addendum.

Feed the Future Northern Kenya 2015 Population of Individuals, by Category in the ZOI

Category of individuals	3 county population	5 county population
Total population	1,512,152	2,386,468
Total population, by sub-population		
Women of reproductive age (15-49 years)	346,432	564,896
Children 0-59 months	210,504	323,581
Children 0-5 months	21,424	32,932
Children 6-23 months	63,382	97,429
Children 6-59 months	189,080	290,649
Youth 15-29 years	459,791	730,127
Total population, by area type		
Urban	259,261	416,772
Rural	1,252,891	1,969,696
Total population, by gendered household type		
Male and female adult(s)	1,142,403	1,893,436
Female adult(s) only	309,915	400,171
Male adult(s) only	59,834	92,861
Child(ren) only (no adults)	0	0
Women of reproductive age, by pregnancy status		
Pregnant	52,169	83,367
Non-pregnant	294,263	481,529
Children 0-59 months, by child sex		
Male	108,150	165,794
Female	102,354	157,787
Children 0-5 months, by child sex		
Male	11,048	16,937
Female	10,376	15,995
Children 6-23 months, by child sex		
Male	32,603	49,981
Female	30,779	47,448
Children 6-59 months, by child sex		
Male	97,102	148,857
Female	91,978	141,792
Youth 15-29 years, by sex		
Male	248,527	394,091
Female	211,264	336,036

Source: Population by five-year age group in each county was projected to 2015 by KNBS based on the 2009 Kenya census. These age groups were aggregated into the three- and five-county groups. Theses population values were then disaggregated into the subgroups reported here using the population characteristics recorded in the FTF FEEDBACK ZOI Interim Survey, northern Kenya 2015 and the 2008-2009 Kenya Demographic and Health Survey.

Feed the Future Northern Kenya 2015 Number of Households, by Category in the ZOI

Category of households	3 county population	5 county population
Total number of households in ZOI	245,524	372,895
Number of households, by gendered household type		
Male and female adult(s)	156,267	254,632
Female adult(s) only	66,235	82,369
Male adult(s) only	23,022	35,894
Child(ren) only, (no adults)	0	0

Source: Population by five-year age group in each county was projected to 2015 by KNBS based on the 2009 Kenya census. These age groups were aggregated into the three- and five-county groups. Theses population values were then disaggregated into the subgroups reported here using the population characteristics recorded in the FTF FEEDBACK ZOI Interim Survey, northern Kenya 2015 and the 2008-2009 Kenya Demographic and Health Survey.