



Feed the Future Cambodia 2015

Zone of Influence Interim Assessment Report





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# **List of Acronyms**

5DE Five Domains of Empowerment

A-WEAI Abbreviated Women's Empowerment in Agriculture Index

BFS Bureau for Food Security

BMI Body Mass Index
CI Confidence Interval
CPI Consumer Price Index

CSES Cambodian Socio-Economic Survey

DEFF Design Effect

DHS Demography and Health Survey

FANTA Food and Nutrition Technical Assistance Project

FTF Feed the Future

FTFMS Feed the Future Monitoring System

GPI Gender Parity Sub-Index

HARVEST Helping Address Rural Vulnerabilities and Ecosystem Stability

HHS Household Hunger Scale

IFPRI International Food Policy Research Institute

IMF International Monetary Fund

LCU Local Currency Unit

LSMS Living Standard Measurement Survey

MAD Minimum Acceptable Diet
MDD Minimum Dietary Diversity
MDG Millennium Development goals
MMF Minimum Meal Frequency

NRVCC Nutrient-Rich Value Chain Commodities
PAFD Primary Adult Female Decisionmaker

PBS Population Based Survey
PPP Purchasing Power Parity
SD Standard Deviation

SI Social Impact

UNDP United Nations Development Program

UNICEF United Nations International Children's Emergency Fund

USAID U.S. Agency for International Development

USD U.S. Dollar U.S. 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 (FTF), 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 Cambodia.

The Feed the Future ZOI in Cambodia includes four provinces around the Tonle Sap Lake region: Pursat, Battambang, Siem Reap, and Kampong Thom. The Tonle Sap region of Cambodia has some of the highest rates of poverty and food insecurity in the country.

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**

Fourteen 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 Score (WDDS); (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; (13) Prevalence of underweight children under 5 years of age; and 14) Prevalence of exclusive breastfeeding

The first interim assessment does not report on the full Feed the Future indicator Women's Empowerment in Agriculture Index (WEAI) score, but does report an abbreviated WEAI (A-

WEAI) and on nine of the ten indicators that comprise the WEAI. These are presented in the Women's Empowerment in Agriculture section of this report (Section 5). Because adjustments were being made to the WEAI tool at the time of the first ZOI interim survey collection, a streamlined version of the Women's Empowerment in Agriculture module was used that only collected data for nine of the ten 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 the 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 of 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 two primary sources: the FTF ZOI Interim questionnaire from August 2015 and the 2014 Cambodia Demography and Health Survey (DHS) from June to December 2014. In addition, macroeconomic data was used from the International Monetary Fund's (IMF) International Financial Statistics database and from the World Bank's World Development Indicators database.

The Cambodia ZOI interim survey was conducted by Social Impact, Inc. in conjunction with its data collection partner, TNS Cambodia. Fieldwork for the ZOI interim survey took place in August, 2015.

# **Summary of Key Findings**

#### Household Economic Status

The mean per capita daily expenditures across the ZOI is \$5.15 (2010 USD), including all food and non-food expenditures, including housing costs. Gendered household type demonstrates a statistically significant relationship with expenditures. Households with both a male and female adult report higher expenditures. Educational attainment was also significantly positively correlated with higher expenditures.

Eight and a half percent of individuals in the ZOI live below the \$1.25 poverty threshold. Households with only female adults have a nearly 4.5 percentage point increase in poverty relative to households with male and female adults. Household educational attainment is significantly correlated with poverty, with households with adults with primary, secondary, or higher levels of education demonstrating much lower levels of poverty than households with no education.

The depth of poverty in the ZOI is 2.2%, which indicates that the average gap between consumption levels of the population and the poverty line is \$0.03 (2005, Purchasing Power Parity, [PPP]). We estimate that \$90,326 (2005 PPP) per day would need to be transferred to the poor to bring their income or expenditures up to the poverty threshold. We find a statistically significantly lower depth of poverty for households with secondary education or above, while households with no education or primary education have roughly equivalent depth of poverty. Moreover, we find that households with only female adults have higher depth of poverty than households with both male and female adults.

The average *poor* person within the ZOI lives at 74.79% of the poverty line, or 25.21% below the poverty line. The average value of consumption of a *poor* person is \$0.93 (2005 PPP) per day.

#### Women's Empowerment in Agriculture Index Indicators

The FTF PBS Interim assessment of the ZOI gathered data on nine of ten indicators needed to assess the full Five Domains of Empowerment (5DE) and the Gender Parity Sub-Index (GPI). While it was not possible to fully assess the 5DE and GPI as a result, the assessment did look at indicators for all of the domains. In addition, SI collected data from both men and women to look at differences between genders.

- 81% of female respondents had adequate achievement in providing input on productive decisions
- 84% of female respondents had adequate achievement in the ownership of assets
- 59% of female respondents had adequate achievement in making decisions on whether or not certain assets can be purchased, sold, or gifted
- 65% of women have adequate achievement in access to credit
- 82% of women have adequate achievement on control over the use of income
- 26% of women are a member of a community group
- 83% of women have adequate achievement on speaking in public
- 63% of women do not work more than 10.5 hours per day
- 92% of women are satisfied with their level of leisure time

#### **Hunger and Dietary Intake**

In the ZOI, the prevalence of hunger (defined as a score of 2 or higher on the household hunger scale) is estimated at 8.65%. We find a statistically significant relationship between

household hunger (measured as "little to no hunger") and both gendered household type and education level. Households with both a male and female adult reported lower rates of hunger, as did households with higher levels of education.

The mean WDDS for the ZOI is estimated at 4.26 with a median of 4. We do not find any statistically significant associations between WDDS and age of female, gendered household type, or household size. We do find a strong positive association between WDDS and the female's educational attainment. We also find that households reporting little to no hunger on the household hunger scale are associated with significantly higher WDDS. Across the ZOI, 44.33% of women report meeting the minimum dietary diversity score. As with overall dietary diversity, we find statistically significant relationships between minimum dietary diversity and education and household hunger, with more educated women and women who come from household reporting little to no hunger being more likely to meet the minimum dietary diversity score.

Overall, 74.62% of children under 6 months are exclusively breastfed, based on DHS data. We do not find any statistically significant associations between exclusive breastfeeding and sex of the child or education of the mother, though the sample size (n=90) is relatively small for statistical analysis. Across the ZOI, 26.5% of all children age 6-23 months receive a minimum acceptable diet, which incorporates both dietary diversity and minimum feedings. We do not find any statistically significant associations between household, child, or caregiver characteristics and likelihood of receiving a minimum acceptable diet, though the sample size of children 6-23 months (n=179) is relatively small for statistical analysis. Nevertheless, we do find that women report boy children as nearly 10 percentage points more likely to receive a minimum acceptable diet than girl children.

As the targeted nutrient rich value chains were not finalized at the time of survey development, we only measure consumption of fish as separate response categories were not included for yard long beans and moringa. 68.31% of women in the ZOI consumed fish, with little variation across age group, gendered household type, education, or household hunger. We do find a statistically significant positive correlation with household size, with larger households much more likely to consume fish.

Similarly, 52.49% of children between age 6 and 23 months consumed fish. We find a statistically significant correlation with sex of the child: boys are much more likely to have consumed fish than girls. Education of the caregiver is also statistically significant, with lower levels of education associated with higher levels of fish consumption.

#### **Nutritional Status of Women and Children**

Data shows that 69.5% of all women between ages 15-49 have normal weight, with an average Body Mass Index (BMI) of 22.2. When disaggregated by age, younger women are significantly

more likely to be underweight with almost 23% of women aged 15 to 19 estimated to be underweight. Additionally, we find a significant association between BMI and education attainment. The more education a woman has, the more likely she will have a lower BMI. Women with secondary education or higher are more likely to be of an average weight or underweight relative to women with lower education attainment.

Across the ZOI, 33.7% of all children under five are stunted, with 11.9% being severely stunted. As children age, the percentage of stunted youth increases. Statistically significant associations are also found between the caregiver's educational attainment and the child's likelihood of being stunted. Male children have slightly higher prevalence of wasting (11%) than females (9.5%), but the association by gender is not statistically significant. The percentages across all parameters improve with the age characteristic, and are statistically significant.

Across the ZOI, 25.1% of all children under five were reported as underweight. Chances of being underweight are found to have statistically significant associations with the child's age and caregiver's educational attainment. The prevalence of being underweight increases with the age of the child as well as with lower educational attainment from the primary caregiver.

Baseline and interim estimates of indicator values in the ZOI are shown in the Feed the Future Zone of Influence Indicator Estimates table on the following page.

# Feed the Future Zone of Influence Indicator Estimates: Cambodia

	В	aseline (2009	9)	Interim (2015)		
Feed the Future Indicator	Estimate	95% CI <sup>I</sup>	n	Estimate	95% CI	n
Daily per capita expenditures (as	a proxy for i	income) in L	JSG-assist	ted areas (2	010 USD)	
All households	1.61	1.5-1.7	2,473	5.15	4.8-5.5	1000
Male and female adults	1.57	1.2-1.3	2,261	5.19	4.8-5.6	87 I
Female adult(s) only	1.83	1.6-2.0	180	4.92	4.0-5.8	126
Male adult(s) only	3.02	2.1-4.3	32	3.13	1.9-4.4	3
Children only no adults	-	-	-	-	-	-
Prevalence of Poverty: Percent of	f people livin	g on less tha	ın \$1.25 p	er day (200	5 PPP)	
All households	11.7%	10.4-12.9	2,473	8.68%	6.9-10.4	1019
Male and female adults	11.9%	10.6-13.2	2,261	8.34%	6.5-10.1	887
Female adult(s) only	10.4%	5.9-14.9	180	12.77%	6.9-18.4	129
Male adult(s) only	3.0%	-	32	-	-	3
Children only no adults	-	-	-	-	-	-
Depth of Poverty: Mean percent	shortfall rela	tive to the \$	1.25 per o	day poverty	line (2005 P	PP)
All households	n/a	n/a	n/a	2.17%	1.4-2.9	1019
Male and female adults	n/a	n/a	n/a	2.04%	1.3-2.8	887
Female adult(s) only	n/a	n/a	n/a	3.72%	.89-6.6	129
Male adult(s) only	-	-	-	-	-	3
Children only no adults	-	-	-	-	-	-
Percent of women achieving adel Indicators <sup>2,3</sup>	quacy on Wo	omen's Emp	owermen	t in Agricult	ure Index	
Input in productive decisions	n/a	n/a	n/a	81.0%	77-85	892
Ownership of assets	n/a	n/a	n/a	84.2%	81-88	982
Purchase, sale or transfer of assets	n/a	n/a	n/a	59.4%	53-66	980
Access to and decisions on credit	n/a	n/a	n/a	65.0%	60-70	981
Control over use of income	n/a	n/a	n/a	82.1%	79-85	949
Group member	n/a	n/a	n/a	26.0%	21-31	942
Speaking in public	n/a	n/a	n/a	83.5%	80-87	957
Workload	n/a	n/a	n/a	63.2%	59-67	979
Leisure	n/a	n/a	n/a	91.9%	90-94	982
Autonomy in production	n/a	n/a	n/a	n/a	n/a	n/a
Prevalence of households with m	oderate or s	evere hunge	r			
All households	n/a	n/a	n/a	8.65%	6.3-11.0	1019
Male and female adults	n/a	n/a	n/a	7.9%	5.6-10.1	887
Female adult(s) only	n/a	n/a	n/a	14.2%	7.0-21.4	129
Male adult(s) only	n/a	n/a	n/a	0%	-	3
Children only no adults	n/a	n/a	n/a	-	-	-
Women's Dietary Diversity: Mea	n number of	food groups	consume	ed by wome	n of reprodu	ctive age
All women age 15-49	-	-	-	4.26	4.1-4.4	1026

	Bas	Baseline ([2009])			erim ([2015	])
Feed the Future indicator	Estimate	95% CI <sup>1</sup>	n	Estimate	95% CI	n
Prevalence of exclusive breastfee	ding among o	hildren und	ler 6 mon	ths of age		
All children	75.5%	65.9-85.0	78	74.6%	64.0-85.3	90
Male children	80.4%	69.0-91.7	47	72.9%	58.1-87.6	46
Female children	66.1%	49.4-82.7	31	76.3%	61.2-91.4	44
Prevalence of children 6-23 mont	hs receiving a	a minimum	acceptab	le diet		
All children	n/a	n/a	n/a	26.5%	19.2-33.8	179
Male children	n/a	n/a	n/a	31.3%	20.2-42.4	89
Female children	n/a	n/a	n/a	21.8%	12.5-31.1	90
Prevalence of women of reproduction commodity <sup>4</sup>	ctive age who	consume a	t least on	e targeted n	utrient-rich	value
All women age 15-49	n/a	n/a	n/a	68.3%	64.3-72.3	1026
Prevalence of children 6-23 mont commodity <sup>4</sup>	hs who consu	ıme at least	one targ	eted nutrien	t-rich value	chain
All children	n/a	n/a	n/a	52.5%	43.8-61.2	179
Male children	n/a	n/a	n/a	61.9%	51.6-72.3	89
Female children	n/a	n/a	n/a	43.3%	30.3-56.2	90
Prevalence of underweight wome	en					
All non-pregnant women age 15-49	15.9%	14.2-17.5	1,814	12.3%	11.1-13.8	2285
Prevalence of stunted children un	nder 5 years o	of age				
All children	44.0%	40.4-47.5	736	33.7%	29.1-38.2	1009
Male children	44.6%	39.6-49.5	381	36.3%	29.4-43.1	500
Female children	43.3%	37.9-48.6	355	30.9%	26.0-35.8	509
Prevalence of wasted children und	der 5 years o	f age				
All children	13.0%	10.5-15.4	736	10.3%	7.9-12.7	1009
Male children	12.7%	9.3-16.0	381	11.0%	7.1-14.9	500
Female children	13.3%	9.7-16.8	355	9.5%	6.6-12.5	509
Prevalence of underweight children	en under 5 ye	ears of age				
All children	30.4%	27.0-33.7	736	25.1%	20.9-29.3	1012
Male children	30.9%	26.2-35.5	381	25.8%	20.2-31.5	500
Female children	29.7%	24.9-34.4	355	24.3%	19.5-29.1	512

Source(s): Cambodia Socio-Economic Data 2009, Cambodia Demographic and Health Survey 2010, and Cambodia HARVEST Baseline Survey 2012

n/a - Not available

<sup>&</sup>lt;sup>1</sup> Confidence intervals (Cls) demonstrate the reliability of estimated values. While interim surveys were not designed to capture change over time, non-overlapping Cls do indicate significant differences between the two estimates. However, if Cls do overlap, the reader cannot conclude whether there is or is not a significant difference between baseline and interim estimates.

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.

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.

<sup>&</sup>lt;sup>4</sup> The indicators for women's and children's consumption of targeted NRVCC were not collected during the baseline round of data collection.

# I. Background

This section provides background information on FTF in Cambodia, including a description of the program and the ZOI and demographic information on the ZOI population.

## I.I Feed the Future Overview

FTF seeks to reduce poverty, hunger, and under-nutrition among women and children, and to increase income, women's empowerment, dietary diversity, and appropriate feeding practices. Its efforts are concentrated in zones of influence (ZOI) in 19 focus countries. Progress in achieving FTFs objectives is tracked using population-based performance indicators. Baseline values for performance indicators were established in 2009-2012 using secondary data, where available, and primary data from representative population-based surveys conducted in the ZOI (hereafter referred to as the ZOI surveys).

Interim assessment of ZOI indicators will provide the U.S. Government interagency partners which includes the U.S. Agency for International Development (USAID), the Bureau for Food Security (BFS), individual USAID Missions, host country governments, and development partners with information about short-term progress in the ZOI indicators. The interim indicator assessment is not intended to show statistically significant changes in indicator values between the baseline and interim, but rather to provide point estimates of the indicators with an acceptable level of statistical accuracy (10% margin of error).

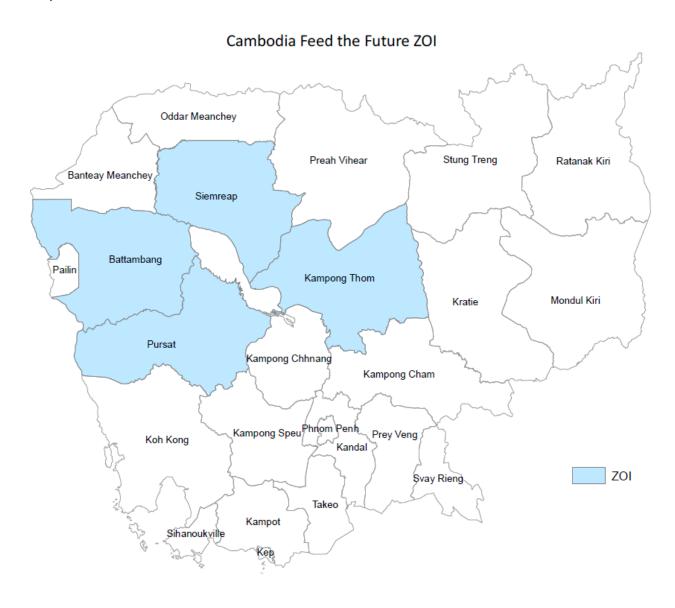
## 1.2 Feed the Future ZOI Profile

The geographic focus of the interim data collection is the ZOI, covering Pursat, Battambang, Kampong Thom, and Siem Reap Provinces. The ZOI is the geographic area where FTF programs are expected to have an impact on poverty and nutrition. The ZOI at interim is the same as the ZOI at baseline.

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

Figure 1.1 Map of Cambodia: Feed the Future ZOI

Map of the Feed the Future Zone of Influence for Cambodia



#### 1.2.1 Rationale for ZOI Selection

The provinces in this ZOI are designated by FTF as part of a focus area with the highest share of food insecurity in Cambodia. The provinces around the Tonle Sap Lake region have some of the highest rural poverty rates in all of Cambodia and are where some of the highest rates of agricultural production occur. Additionally, the Tonle Sap region also includes about a third of all food insecure households in the country and shows the highest concentrations of children suffering from malnutrition. FTF as a result decided to focus its efforts on this region and chose four of the six provinces immediately around Tonle Sap Lake for its targeted programs.

## **I.2.2** Demography of the **ZOI**

According to the 2008 Census of Cambodia, roughly 3 million people live in the ZOI. Given population growth is roughly 1.6% per year in Cambodia, we can estimate a total population within the ZOI of roughly 3.3 million in 2015. Approximately 80% of Cambodia's population lives in rural areas and an estimated 70% of these people rely almost entirely on farming, fisheries, and forestry for their livelihoods. The rural Tonle Sap region, of which the ZOI resides, has the highest poverty rate in Cambodia at 45%.

## **I.2.3** Agriculture in the **ZOI**

Cambodia's agricultural production is concentrated around the Tonle Sap Lake and the Mekong River. Six provinces surround Tonle Sap Lake and of these four of them are in the ZOI. Rice paddy production is the primary form of agriculture in the ZOI. In Cambodia, the majority of agricultural production is rain fed and vulnerable to flood and drought. Rice and small-scale horticulture dominate the agricultural production for rural households in the ZOI. Horticulture production extends into the lean season and becomes a supplemental source of household food while additional income and other resources to purchase food are limited. The rural Tonle Sap region has some of the highest soil fertility in the country and constitutes 80% of the inland fish catch within all of Cambodia.

# 1.3 Purpose of This Report

The purpose of this interim assessment is to provide the United States Government 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 FTF indicators.

Table 2.1 Data sources and dates of the Baseline and Interim Feed the Future indicators

	Baseline		Int	erim
Indicator	Data source	Date collected	Data source	Date collected
Daily per capita expenditures (as a proxy for income) in USG-assisted areas	CSES	Annual, 2009	ZOI Survey	August, 2015
Prevalence of Poverty: Percent of people living on less than \$1.25 per day	CSES	Annual, 2009	ZOI Survey	August, 2015
Depth of Poverty: Mean percent shortfall relative to the \$1.25 per day poverty line	CSES	Annual, 2009	ZOI Survey	August, 2015
Women's Empowerment in Agriculture Index indicators	N/A	N/A	ZOI Survey	August, 2015
Prevalence of households with moderate or severe hunger	N/A	N/A	ZOI Survey	August, 2015
Women's Dietary Diversity: Mean number of food groups consumed by women of reproductive age	N/A	N/A	ZOI Survey	August, 2015
Prevalence of exclusive breastfeeding among children under 6 months of age	DHS	July 2010-Jan 2011	DHS	Jun-Dec 2014
Prevalence of children 6-23 months receiving a minimum acceptable diet	N/A	N/A	ZOI Survey	August, 2015
Prevalence of women of reproductive age who consume targeted nutrient-rich value chain commodities	N/A	N/A	ZOI Survey	August, 2015
Prevalence of children 6-23 months who consume targeted nutrient-rich value chain commodities	N/A	N/A	ZOI Survey	August, 2015
Prevalence of underweight women	DHS	July 2010-Jan 2011	DHS	Jun-Dec 2014
Prevalence of stunted children under 5 years of age	DHS	July 2010-Jan 2011	DHS	Jun-Dec 2014
Prevalence of wasted children under 5 years of age	DHS	July 2010-Jan 2011	DHS	Jun-Dec 2014
Prevalence of underweight children under 5 years of age	DHS	July 2010-Jan 2011	DHS	Jun-Dec 2014

## 2.1.1 Primary Data: The ZOI Interim Survey in Cambodia

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

A two-stage cluster sampling design was used for the ZOI survey. In the first stage, 84 villages were selected; in the second stage, households were selected within each sampled village. The sampling of villages was stratified by province, with the number of villages in each stratum proportional to the population in the stratum and with villages selected with probability proportional to size, based on the 2013 Commune Database. In each sampled village, a list of households was acquired from the village chief, which was used to randomly select 12 households per village using systematic random sampling. On the rare occasions where a household list was unavailable, the random-walk methodology was used. During fieldwork, if more than one household was discovered within a single dwelling unit, all resident households were interviewed for the survey. Further, the survey team attempted to visit each household at least three times before proceeding to a replacement household as needed. More detail on sampling and weighting can be found in Appendix 2.

## **Questionnaire Design**

The **survey instrument**, *Volume 11a*: Revised PBS Instrument for FTF ZOI Indicators, is based on the baseline ZOI survey instrument. It was customized in the following ways:

- Module D was customized to reflect common housing materials, taken from the Cambodia Poverty Assessment Tool;
- Module E was modified using the expenditure choices from the Cambodian Socio-Economic Survey (CSES);
- Food groups listed in Modules H and I were revised to reflect the common foods and infant formulas consumed in Cambodia;
- Questions relating to anemia in Modules H and I were removed because SI is not collecting anemia data in the interim ZOI survey; and
- The complete WEAI tool has been incorporated, including Module G5, but did not include the questions that measure autonomy in production

Following customization of the instrument, the survey was translated into Khmer and back-translated into English to verify translation. A three day pre-test of the instrument and sampling methodology was conducted in Pursat province in non-sampled villages. This was conducted by 8 TNS supervisors and overseen by SI. The TNS team practiced the sampling protocols to ensure their feasibility and administered 26 surveys to the selected households. Upon

completion of the pre-test, the TNS team made instrument revisions based upon the information received from the daily feedback sessions.

#### **Fieldwork**

Fieldwork preparation consisted of a 3-day supervisor training conducted by TNS and overseen by SI followed by the survey pretest described above. A 5-day Enumerator training was held with 30 enumerators and IO supervisors and was led by TNS with SI oversight. This included question by question instrument review as well as mock interviews. Following the enumerator training, all staff went to a non-sampled village in Battambang province to pilot the final instrument. All enumerators conducted interviews and were monitored by their supervisors, the TNS Fieldwork Manager, and SI. Following the pilot, an in-depth feedback and training session was held with the enumerators to assess any potential problem areas or any misunderstandings by the enumerators. Additional training was provided as needed.

Staff were organized into 10 teams of three enumerators and one supervisor. Data collection occurred from August 4<sup>th</sup> to August 25<sup>th</sup> in 2015.

## **Limitations of the Survey**

## Fieldwork Challenges

SI conducted field monitoring of data collection and identified a few implementation concerns which were all rapidly addressed. During the first day of data collection, a few issues in household sampling, including on respondents for Module G, were identified, though these were addressed that evening and resolved with all data collection teams across the ZOI.

Prior to the beginning of data collection, SI assumed a 10% level of refusal rates from households. In total, 122 households refused to be interviewed for numerous reasons. This yields an overall refusal rate of 11.9%. The reasons cited for refusing to participate in the survey include not being available for the anticipated time commitment, the need for potential respondents to be productive to generate household income, illnesses preventing the survey from being administered, and concerns about the overall length of the survey. All households that refused to participate were replaced by another randomly selected household in the village per the sampling protocol developed by SI. To minimize the refusal rates, respondents were offered alternative times to conduct the survey and if they still refused, were visited by the field supervisor. After a supervisor visited, if the household still refused, the field coordinator randomly visited some of the houses that refused in an attempt to see if the household would be willing to participate.

Additionally, 208 households randomly selected to participate in the survey could not be found or had migrated. For these households, supervisors and enumerators asked village chiefs and/or

neighbors about the whereabouts of these households. The primary reason cited was that households had immigrated to Thailand for work or emigrated to other villages or provinces within Cambodia to find work. Each of these households was replaced with a randomly sampled replacement from the village. While there is a large number of households that were not found, this should not be a concern for the overall population based survey because the vast majority of these households do not represent the current population of these villages, as they have reportedly migrated. All households reported as not found were verified by the supervisor by going to the household and also talking with the household's neighbors and the village chief.

## **Comparison with Secondary Data**

Indicators estimated from DHS data are not expected to suffer from any seasonality or timing bias, as the data collection periods for the 2010 and 2014 data are roughly equivalent. Baseline consumption and expenditures data were collected using the CSES, which is collected throughout the year. Accordingly, comparisons with the baseline values for these indicators must be done with caution given the difference in timing. Nevertheless, the timing of interim data collection occurred in a fairly 'typical' time of the rainy season, prior to severe weather and did not include any major holidays.

Baseline data for the WEAI, prevalence of hunger, and dietary diversity were not available for comparison. HARVEST baseline, which was collected in August-September, roughly the same time as the ZOI survey. However, the HARVEST baseline targeted project villages (and a sample of similar comparison villages) and did not seek to generate a provincially (or ZOI) representative sample, so comparison of these indicators is not valid.

#### **ZOI Interim Survey Response Rates**

**Table 2.2** presents the response rates for the ZOI interim survey for Cambodia. 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 all presented.

Table 2.2 Results of the household and individual interviews for the ZOI interim survey in Cambodia 2015

Response rates and components	Total
Households	
Households selected	1356
Households occupied	1149
Households interviewed	1019
Household response rate	88.7%
Women of reproductive age (15-49 years)	
Number of eligible women	1053
Number of eligible women interviewed	1026
Eligible women response rate <sup>2</sup>	97.4%
Primary adult female decisionmakers (age 18+ years)	
Number of eligible women	1014
Number of eligible women interviewed	982
Primary adult female response rate <sup>2</sup>	96.8%
Children under 3 years of age	
Number of eligible children	405
Number of caregivers of eligible children interviewed	375
Eligible children response rate <sup>2</sup>	92.6%

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.

Source: ZOI interim survey, Cambodia 2015.

# 2.1.2 **Secondary Data**

This section discusses the use of secondary data sources for the calculation of interim indicators.

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.)

Table 2.3 Secondary data sources used for the ZOI interim assessment in Cambodia 2015

Name of data source	Indicators	Fieldwork dates	Sample size in the ZOI
DHS	Prevalence of exclusive breastfeeding among children under 6 months of age	Jun-Dec 2014	90
DHS	Prevalence of stunted children under 5 years of age	Jun-Dec 2014	1,012
DHS	Prevalence of wasted children under 5 years of age	Jun-Dec 2014	1,012
DHS	Prevalence of underweight children under 5 years of age	Jun-Dec 2014	1,012
DHS	Prevalence of underweight women	Jun-Dec 2014	2,285

# 2.1.3 Comparability of Data Sources Used for the ZOI Interim Assessment

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

## Seasonality

The DHS was collected from July through December 2014, the bulk of which falls within the southwest monsoon season. Since the ZOI survey was also collected during a relatively representative portion of the southwest monsoon season, significant seasonality issues are not expected in comparing ZOI and DHS indicators. As described above, this is even less of a potential concern when comparing baseline and interim indicator values since the same indicators rely on DHS data at baseline and interim, and the DHS was collected at approximately the same time of year in 2010 and 2014.

# 2.2 Measures and Reporting Conventions Used Throughout This Report

# 2.2.1 Standard Disaggregates

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

These variables are coded consistently; however, because data have been drawn from the ZOI interim survey and the DHS, there may be minor cross-source variations in the data used to derive the standard disaggregates. These are noted in the variable descriptions below. The data source used for each Feed the Future indicator is also the data source used to produce the disaggregating variables presented in the associated descriptive tables.

## 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 six-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 three categories: no education (households where no member completed primary education); 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 three 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 three categories: no education (those who have not completed primary education), 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: Measuring the Gender Impact of FTF notes that household-level indicators should be disaggregated by gendered household types – that is: (1) households where members include both male and female adults<sup>1</sup>; (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).<sup>2</sup> The fourth household type, households with only children, were not included in the sampling protocol. As a result no households are designated as children only in the interim assessment.

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 household hunger scale (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.

#### **Household Size**

For the ZOI surveys, household size is defined as the total number of people who: (I) are reported to be usual members of the household; and (2) who have spent the night in the household within the past six months. This ordinal household size variable is recoded into a categorical variable as follows: small households (I-5 members), medium households (6-10

Adult is defined as age 18 or older.

<sup>&</sup>lt;sup>2</sup> United States Agency for International Development (USAID). (2014). Feed the Future M&E Guidance Series. Volume 6: Measuring the Gender Impact of FTF, March. Accessed 27 March 2015 at http://www.feedthefuture.gov/resource/volume-6-feed-future-measuring-gender-impact-guidance.

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 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.
- Unweighted sample sizes in all tables and the population estimates in Tables 1.1 and 1.2 are shown as whole numbers.

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.

We find the average household size across the ZOI is 4.8, with households with both male and female adults being on average 2 people larger than households with only female adults. The number of children in each age range and the highest level of education attained within the household are also significantly higher in households with both male and female adults.

Table 3.1 Household demographic characteristics

		By ge	ndered hous	sehold type <sup>a</sup>	
Characteristic	Total (All households)	Male and female adult <sup>a</sup>	Female adult(s) only <sup>b</sup>	Male adult(s) only <sup>c</sup>	Child only
Mean household size <sup>a,b</sup>	4.8	5.1	3.1	3.9	n/a
Mean number of adult female household members 1,2	1.54	1.54	1.55	n/a	n/a
Mean number of children (<6 months)	0.06	0.06	0.03	n/a	n/a
Mean number of children (6-23 months)	0.18	0.19	0.08	n/a	n/a
Mean number of children (<2 years) <sup>1 a b</sup>	0.23	0.25	0.11	0	n/a
Mean number of children (0-4 years) a b	0.52	0.55	0.30	0.69	n/a
Mean number of children (5-17 years) <sup>1ab</sup>	1.42	1.47	1.06	1.68	n/a
Mean percentage of adults who are female <sup>1,2,a</sup>	53.7%	50.4%	100%	0%	n/a
Highest education level attained a b					
No education	15.1%	11.3%	41.2%%	34.6%	n/a
Primary	50.2%	50.1%	50.3%	65.4%	n/a
Secondary or more	34.7%	38.6%	8.5%	n/a	n/a
n <sup>3</sup>	1016	887	129	3	n/a

<sup>^</sup> Results not statistically reliable, n<30.

<sup>&</sup>lt;sup>1</sup> The count is based on household members with known age.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> Sample n is the unweighted count of all households that responded to the survey.

Source: ZOI interim survey, Cambodia, August, 2015

**Table 3.2** shows characteristics of the primary male and female adult decisionmakers in the sampled households in the ZOI. The primary male and primary female adult 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 male and female adult 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 for primary adult decisionmakers according to sex.

We find that 53.3% of adult decision makers are female, yet male decision makers are significantly more likely to be literate (more than 25 percentage points) and more highly educated.

Table 3.2 Characteristics of the primary male and female adult decisionmakers

	Total (All	primary	By prii	mary adult	decisionmaker	' sex <sup>a</sup>
	adult decision	onmakers)	<b>M</b> al	le	Fem	ale
Characteristic	Percent	n	Percent	n	Percent	n
Age <sup>a</sup>						
18-24	5.1%	1904	4.2%	889	5.9%	1015
25-29	10.6%	1904	11.7%	889	9.7%	1015
30-39 <sup>a</sup>	27.9%	1904	29.6%	889	26.5%	1015
40-49	19.6%	1904	20.0%	889	19.3%	1015
50-59	23.1%	1904	21.8%	889	24.2%	1015
60+	13.6%	1904	12.7%	889	14.3%	1015
Literacy <sup>a</sup>						
Percent literate <sup>1, a</sup>	57.0%	1904	71.1%	889	44.7%	1015
Educational attainment	a					
No education <sup>a</sup>	26.0%	1904	20.1%	889	31.1%	1015
Primary <sup>a</sup>	49.2%	1904	45.9%	889	52.0%	1015
Secondary or more <sup>a</sup>	24.7%	1904	33.8%	889	16.8%	1015

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia August, 2015.

a-c 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.

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

a-b 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.

# 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 (UNDP 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 Household dwelling characteristics

_	Total (All ho	useholds)
Characteristic	Estimate	n
Percent with improved water source	54.2%	552
Percent with improved sanitation <sup>2</sup>	28.7%	293
Mean persons per sleeping room <sup>3</sup>	4.1	1019
Percent using solid fuel for cooking <sup>4</sup>	92.8%	945
Percent with access to electricity	80.8%	825
Household roof materials (%) <sup>5</sup>		
Natural	3.6%	37
Rudimentary	0.2%	2
Finished	96.2%	980
Household exterior wall materials (%) <sup>6</sup>		
Natural	15.8%	161
Rudimentary	10.8%	108
Finished	73.3%	745
Household floor materials (%) <sup>7</sup>		
Natural	10.5%	107
Rudimentary	68.5%	697
Finished	21.0%	214

<sup>^</sup> Results not statistically reliable, n<30.

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 (UNDP 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.

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 (UNDP 2003).

<sup>&</sup>lt;sup>3</sup> The average number of persons per sleeping room is a common indicator of crowding (UNDP 2003).

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 (UNDP 2003). The other and no food cooked in household categories are removed from percentages.

Natural roofs include thatch/palm leaf, and mixed, predominantly thatch. Rudimentary roof includes wood planks. Finished roofs include metal, wood, calamine/cement fiber, ceramic tiles, and cement. The other category is removed from percentages.

Natural walls include no walls, bamboo/thatch/leaves/grass, clay/dung with straw, and make-shift mixed material.. Rudimentary walls include plywood, cardboard, reused wood, and metal sheeting. Finished walls include cement, stone with lime/cement, bricks, cement blocks, fibrous cement/asbestos, and wood planks/shingles. The other category is removed from percentages.

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

Source: ZOI interim survey, Cambodia August, 2015.

## 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 Cambodia, primary education is defined as completing grades I through 6.

Table 3.4 reveals that while younger (under 25) females and males have similar levels of primary school completion and literacy, women aged 20-24 are much less likely to be currently attending school, perhaps suggesting lower levels of enrolment in post-secondary education. Moreover, above the age of 25, females are increasingly less likely, both absolutely and relative to their male peers, to have achieved primary education and literacy.

Table 3.4 School attendance, educational attainment, and literacy

	Percent			Female to male ratio				
	Attained a			Attained a				
		primary			primary			
	Attending	level of		Attending	level of			
Characteristic	school <sup>1,a</sup>	education <sup>2,b</sup>	Literate <sup>3,c</sup>	school <sup>1</sup>	education <sup>2</sup>	Literate <sup>3</sup>	n	
Age group a b c								
5-9	69.3%%	n/a¹	15.1%	1.08	n/a <sup>1</sup>	1.10	476	
10-14	90.7%	96.9%	79.1%	0.98	0.99	1.18	587	
15-19	45.3%	96.9%	87.2%	1.02	1.01	1.08	446	
20-24	7.5%	91.7%	74.7%	0.66	1.00	0.99	426	
25-29	n/a²	89.6%	74.2%	n/a²	0.94	0.82	413	
30-34	n/a²	79.4%	59.0%	n/a²	0.89	0.67	375	
35-54	n/a²	74.3%	56.2%	n/a²	0.88	0.66	944	
55+	n/a²	56.1%	47.0%	n/a²	0.66	0.43	595	
Sex a b c								
Female								
Age group								
5-9	72.0%	n/a¹	15.9%	n/a³	n/a³	n/a³	219	
10-14	89.9%	96.4%	84.6%	n/a³	n/a³	n/a³	336	
15-19	45.9%	97.3%	90.7%	n/a³	n/a³	n/a³	216	
20-24	6.1%	91.8%	74.4%	n/a³	n/a³	n/a³	227	
25-29	n/a²	86.7%	66.6%	n/a³	n/a³	n/a³	197	
30-34	n/a²	75.5%	48.4%	n/a³	n/a³	n/a³	209	
35-54	n/a²	70.0%	45.2%	n/a³	n/a³	n/a³	499	
55+	n/a²	46.6%	30.9%	n/a³	n/a³	n/a³	360	
Male								
Age group								
5-9	66.9%	n/a <sup>1</sup>	14.4%	n/a³	n/a³	n/a³	257	
10-14	91.8%	97.7%	71.9%	n/a³	n/a³	n/a³	251	
15-19	44.8%	96.5%	84.0%	n/a³	n/a³	n/a³	230	
20-24	9.2%	91.6%	75.0%	n/a³	n/a³	n/a³	199	
25-29	n/a²	92.2%	81.2%	n/a³	n/a³	n/a³	216	
30-34	n/a²	84.4%	72.4%	n/a³	n/a³	n/a³	166	
35-54	n/a²	79.1%	68.6%	n/a³	n/a³	n/a³	445	
55+	n/a²	70.7%	71.5%	n/a³	n/a³	n/a³	235	

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia 2015.

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

n/a³ Not applicable – Female to male ratios cannot be calculated for male-only and female-only disaggregates.

<sup>&</sup>lt;sup>1</sup> The survey was conducted leading up to and into the start of the school year.

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 (UNDP 2003).

<sup>&</sup>lt;sup>3</sup> 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 (UNDP 2003).

a-c 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.

## 4. Household Economic Status

This section includes a background discussion of monetary poverty in Cambodia, including the logic of the Living Standard Measurement Survey (LSMS)<sup>3</sup> and consumption expenditure methodology.

The Household Roster and Household Consumption Expenditure modules of the questionnaire are used to calculate the per capita expenditures and prevalence of poverty indicators. The household consumption expenditure module is similar to the LSMS, where households' consumption of various food and non-food items is measured 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, 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.<sup>4</sup>

# 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). Daily per capita expenditures serve as a proxy for income. This table includes the mean per capita expenditures, distributional information, and the poorest quintile's share of consumption. 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. The share of consumption attributed to the lowest quintile (the bottom 20%) is a measure of inequality, and an MDG.

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. Nineteen households were not included in the expenditures calculations because their values are considered to be outliers likely caused by reporting error. All analysis is conducted for households with expenditures less than \$30 per day. Gendered household type demonstrates a statistically significant relationship with expenditures, with households with

<sup>&</sup>lt;sup>3</sup> Grosh, Margaret and Paul Glewwe. 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.

<sup>&</sup>lt;sup>4</sup> Deaton, A. 2008. The Analysis of Household Surveys: A microeconomic approach to development policy. Baltimore: The Johns Hopkins University Press.

both a male and female adult reporting higher expenditures. Household size did also demonstrated a statistically significant association with expenditures; we find that the smallest household size grouping (I-5 members) reported the highest expenditures. Educational attainment was significantly correlated with higher expenditures with households in which the male or female head of household had a secondary or higher level of education reporting the highest level of expenditures.

Table 4.1 Daily per capita expenditures by household characteristic (in 2010 USD<sup>1</sup>)<sup>2</sup>

	Estimate (weighted)								
		Percentile							
Characteristic	<b>M</b> ean <sup>a</sup>	I O <sup>th</sup>	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	n³		
Total (All households)	5.15	1.56	2.32	3.73	6.13	10.18	1000		
Gendered household type <sup>a</sup>	_	_	-	-	_	-			
Male and female adults	5.19	1.56	2.38	3.80	6.27	10.15	871		
Female adult(s) only	4.92	1.38	2.03	3.44	5.88	11.26	126		
Male adult(s) only	3.13	1.81	1.81	3.13	4.57	4.57	3		
Household size <sup>a</sup>									
Small (1-5 members)	5.57	1.65	2.50	4.09	6.75	11.67	691		
Medium (6-10 members)	4.16	1.34	1.99	3.18	4.94	8.18	296		
Large (11+ members)	4.68	1.52	2.18	3.14	4.80	8.53	13		
Household educational attainment <sup>a</sup>									
No education	4.42	1.34	2.05	3.42	4.76	10.07	153		
Primary	4.46	1.50	2.07	3.32	5.41	8.24	502		
Secondary or more	6.48	1.92	2.98	4.94	7.70	13.93	345		

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia 2015.

Per capita expenditures measured in Cambodian Riel. Local currency units (LCU) were converted to 2010 USD using the Consumer Price Index (CPI) and the PPP Index estimated by the World Bank. We used the formula (2005 CPI LCU/ 2015 CPI LCU)\*1/(PPP 2005)\* (2010 USD CPI /2005 USD CPI).

<sup>&</sup>lt;sup>2</sup> Values shown are only for households with daily expenditures less than \$30. Nineteen total households were excluded from analysis.

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.

<sup>&</sup>lt;sup>a</sup> 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.</p>

Figure 4.1 shows the share of total expenditures per quintile in the ZOI, which demonstrates that the majority of expenditures (57%) come from the wealthiest quintile, while only 4.72% come from the poorest 20% of the population in the ZOI.

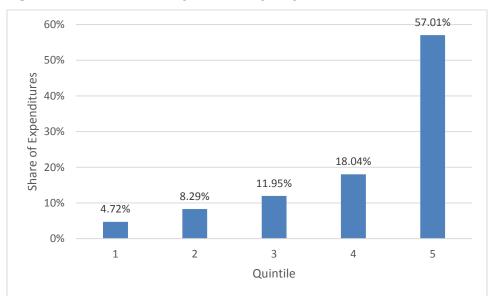


Figure 4.1 Share of expenditures per quintile: Feed the Future ZOI

Share of the poorest quintile in national consumption is an MDG indicator that provides information on income inequality (UNDP 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.

# 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.<sup>5</sup> 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<sup>6</sup> 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 poverty line typical of the world's poorest countries.<sup>7</sup> Poverty estimates may also be 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**

Eight and a half percent of individuals in the ZOI live below the \$1.25 poverty threshold. Though we do not find statistically significant differences, households with only female adults have a nearly 4.5 percentage point increase in poverty relative to households with male and

<sup>&</sup>lt;sup>5</sup> 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.

<sup>&</sup>lt;sup>6</sup> 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.

World Bank. 2011. Poverty & Equality Data FAQs. <a href="http://go.worldbank.org/PYLADRLUN0">http://go.worldbank.org/PYLADRLUN0</a>. Accessed 15 April 2015.

female adults. Household educational attainment is significantly correlated with poverty, with households with adults with primary, secondary, or higher levels of education demonstrating much lower levels of poverty than households with no education.

## Depth of Poverty

The depth of poverty in the ZOI is 2.2%, which indicates that the average gap between consumption levels of the population and the poverty line is \$0.03 (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 million in 2008 from the Cambodian census and an assumed annual population growth rate of 1.5%, we estimate a 2015 population of 3.33 million in 2015. Accordingly, \$90,326 (2005 PPP) per day would need to be transferred to the poor to bring their income or expenditures up to the poverty threshold.

Households with only female adults have significantly higher depth of poverty relative to households with both male and female adults. Depth of poverty is higher, though not statistically significantly so, among larger households. We do find a statistically significantly lower depth of poverty for households with secondary education or above, while households with no education or primary education have roughly equivalent depth of poverty.

## Average Consumption Shortfall of the Poor

The average *poor* person within the ZOI lives at 74.79% of the poverty line, or 25.21% below the poverty line. The average value of consumption of a *poor* person is \$0.93 (2005 PPP) per day. As with depth of poverty, households with less than secondary education and households with only female adults have higher consumption shortfall, though this time not statistically significant.

Table 4.2 Poverty at the \$1.25 (2005 PPP) per person per day threshold

	Prevale Pover		Deptl Pover			ge consump all of the po	
Characteristic	Percent popula- tion <sup>a</sup>	n <sup>6</sup>	Percent of poverty line <sup>b</sup>	n <sup>6</sup>	In USD 2005 PPP <sup>c</sup>	Percent of poverty line <sup>c</sup>	n <sup>6</sup>
Total (All households)	8.68%	1,019	2.17%	1,019	\$0.32	25.21%	77
Gendered household typ	e <sup>b</sup>						
Male and female adults	8.34%	887	2.04%	887	\$0.31	24.57%	63
Female adult(s) only	12.77%	129	3.72%	129	\$0.38	30.29%	14
Male adult(s) only	n/a	3	0%	3	N/A	N/A	0
Child(ren) only (no adults)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Household size <sup>a</sup>							
Small (1-5 members)	5.98%	704	1.60%	704	\$0.34	27.02%	42
Medium (6-10 members)	12.01%	302	2.88%	302	\$0.30	24.19%	34
Large (11+ members)	9.12%	13	2.19%	13	\$0.29	23.22%	I
Household educational a	ttainment <sup>a</sup>	,b					
No education	14.07%	154	2.92%	154	\$0.28	22.26%	20
Primary	8.18%	510	2.99%	510	\$0.35	28.01%	43
Secondary or more	8.64%	355	.71%	355	\$0.23	18.11%	14

<sup>^</sup> Results not statistically reliable, n<30.

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

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.

<sup>&</sup>lt;sup>3</sup> The depth of poverty, or poverty gap, is the average consumption shortfall multiplied by the prevalence of poverty.

<sup>&</sup>lt;sup>4</sup> 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.

<sup>&</sup>lt;sup>5</sup> A significance test was 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.

<sup>&</sup>lt;sup>6</sup> 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

## 4.2.2 Prevalence of Poverty: Other Poverty Thresholds

In addition to the \$1.25 poverty threshold, SI looked at three additional poverty thresholds: \$1.90 using PPP, 2015; the nominal poverty threshold at \$1.15; and the nominal threshold at \$2.30. **Table 4.3** presents these poverty estimates.

Using these different poverty thresholds, the poverty rates are higher than compared to the \$1.25 poverty threshold. The \$1.90 poverty threshold shows a poverty rate of 23.4% for all households. Female adult only households have a poverty rate of 33.7% compared to a poverty rate of 22.5% for households with both a female and male adult. Gendered household type, however, is not statistically significant. Household size and household educational attainment are both statistically significant at the \$1.90 poverty threshold. Households with a secondary or higher educational attainment have only a 13.3% poverty rate compared to 29% for households with less educational attainment. Larger households typically also have higher poverty rates than small households with only one to five members.

The overall poverty rate for the \$1.15 nominal poverty threshold is 17.5%. Female adult only households have higher rates of poverty at this threshold compared to male and female adult households, however the result is not statistically significant. Larger households typically have higher rates of poverty at the \$1.15 threshold with small households only showing a 13.9% poverty rate compared to 22.2% for medium households. This result is statistically significant. Similarly, households with a secondary education or higher have statistically lower poverty rates compared to households with less education: 8.5% compared to roughly 22%.

Using a nominal poverty threshold of \$2.30, 52.3% of households are below the poverty rate. Female adult only households typically have higher rates compared to male and female adult households, but this result is not statistically significant, despite the 10 percentage point difference. Medium sized households, however, do have a significantly higher poverty rate relative to smaller households: 59.5% compared to 46.3% for small households. Similarly to the other two poverty thresholds, households with secondary education or higher attainment have significantly lower poverty rates at the \$2.30 nominal threshold compared to the lower education attainment levels: 39% versus roughly 60%.

Table 4.3 Prevalence of Poverty with Other Poverty Thresholds

	Poverty:	Prevalence of Poverty: \$1.90, PPP 2005 <sup>1,4</sup>		Prevalence of Poverty: \$1.15 nominal <sup>2,4</sup>		ence of : \$2.30, nal <sup>3,4</sup>
Characteristic	Percent Popula- tion <sup>a</sup>	n <sup>5</sup>	Percent Popula- tion <sup>b</sup>	n <sup>5</sup>	Percent Popula- tion <sup>c</sup>	n <sup>5</sup>
Total (All households)	23.4%	1,019	17.5%	1,019	52.3%	1,019
Gendered household type	•					
Male and female adults	22.5%	887	16.9%	887	51.5%	887
Female adult(s) only	33.7%	129	24.0%	129	61.8%	129
Male adult(s) only	34.0%	3	34.0%	3	68.6%	3
Child(ren) only (no adults)	n/a	n/a	n/a	n/a	n/a	n/a
Household size <sup>a, c</sup>						
Small (1-5 members)	19.1%	704	13.9%	704	46.3%	704
Medium (6-10 members)	28.8%	302	22.2%	302	59.5%	302
Large (11+ members)	23.6%	13	15.9%	13	58.5%	13
Household educational at	tainment <sup>a,b,</sup>	С				
No education	29.0%	154	22.7%	154	59.6%	154
Primary	29.1%	510	22.4%	510	59.8%	510
Secondary or more	13.3%	355	8.5%	355	38.9%	355

<sup>^</sup> Results not statistically reliable, n<30.

<sup>&</sup>lt;sup>1</sup> The prevalence of poverty is the percentage of individuals living below the \$1.90 (2005 PPP) per person per day threshold. Poverty prevalence is sometimes referred to as the poverty incidence or poverty headcount ratio.

<sup>&</sup>lt;sup>2</sup> The prevalence of poverty is the percentage of individuals living below the \$1.15 nominal per person per day threshold. Poverty prevalence is sometimes referred to as the poverty incidence or poverty headcount ratio.

<sup>&</sup>lt;sup>3</sup> The prevalence of poverty is the percentage of individuals living below the \$2.30 nominal per person per day threshold. Poverty prevalence is sometimes referred to as the poverty incidence or poverty headcount ratio.

<sup>&</sup>lt;sup>4</sup> A significance test was 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.

<sup>&</sup>lt;sup>5</sup> 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

# 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. For more information, the WEAI questionnaires and manual can be found online at IFPRI's website.

#### 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 sub-indices: the Five Domains of Empowerment sub-index (5DE), 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. The WEAI score is computed as a weighted sum of the ZOI-level 5DE and the GPI.

For the interim FTF assessment, an abbreviated WEAI (A-WEAI) is calculated. The A-WEAI is a streamlined version of the WEAI that uses only six of the ten indicators to calculate the A-WEAI score. **Table 5.I** shows which indicators comprise the WEAI and the A-WEAI.

<sup>9</sup> IFPRI. (2013). <a href="http://feedthefuture.gov/lp/womens-empowerment-agriculture-index">http://feedthefuture.gov/lp/womens-empowerment-agriculture-index</a>

<sup>&</sup>lt;sup>8</sup> Alkire, S. Malapit, H., et al. (2013).

<sup>&</sup>lt;sup>10</sup> 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.

Table 5.1 Indicators for the WEAI vs. the A-WEAI

	WEAI	A-WEAI			
Domain	Indicators	Domain	Indicators		
Production	<ul><li>Input in productive decisions</li><li>Autonomy in Production</li></ul>	Production	<ul> <li>Input in productive decisions</li> </ul>		
Resources	<ul> <li>Ownership of assets</li> <li>Purchase, sale, or transfer of assets</li> <li>Access to and decisions on credit</li> </ul>	Resources	<ul><li>Ownership of assets</li><li>Access to and decisions on credit</li></ul>		
Income	Control over use of income	Income	Control over use of income		
Leadership	<ul><li> Group Membership</li><li> Speaking in public</li></ul>	Leadership	Group Membership		
Time	<ul><li>Workload</li><li>Leisure</li></ul>	Time	<ul> <li>Workload</li> </ul>		

While the A-WEAI only reports on six of the ten empowerment indicators, SI collected data on nine of the ten WEAI indicators. Each of the nine empowerment indicators are reported on in this section in addition to the results of the A-WEAI.

**Table 5.2** 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 5.2 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). The criteria for determining adequacy in each domain are provided in Appendix 1.3.

Achievement of adequacy varies considerably across domain, with relatively high achievement (above 80%) in input in productive decisions, asset ownership, control over use of income, speaking in public, and leisure time. The only area with achievement under 50% is in economic or social group participation, at 26.0%.

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<sup>&</sup>lt;sup>11</sup> See Appendix 1.3 for the criteria for achieving adequacy in each WEAI indicator.

Table 5.2 Achievement of adequacy on Women's Empowerment in Agriculture Index indicators<sup>1</sup>

Domain	Definition of domain	Indicators	Percent with adequate achievement	N
Production food and cash crop farming, livestock, and fisheries, and Auton	•	Input in productive decisions	81.0%	892
	Autonomy in production	n/a	n/a	
Ownership, access to, and	Ownership of assets	84.2%	982	
Resources	decisionmaking power over productive resources such as land,	Purchase, sale or transfer of assets	59.4%	980
	livestock, agricultural equipment, consumer durables, and credit	Access to and decisions on credit	65.0%	981
Income	Sole or joint control over income and expenditures	Control over use of income	82.1%	949
l andowskin	Membership in economic or social	Group member	26.0%	942
Leadership	groups and comfort in speaking in public	Speaking in public	83.5%	957
T:	Allocation of time to productive and domestic tasks and satisfaction with	Workload	63.2%	979
Time	the available time for leisure activities	Leisure	91.9%	982

<sup>&</sup>lt;sup>1</sup> 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 sub-index cannot be calculated.

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

Source: ZOI interim survey, Cambodia August, 2015

# 5.2 A-WEAI<sup>12</sup>

The overall results of the A-WEAI are presented in **Table 5.3**. To facilitate the interpretation of the disempowerment headcount (H), the average inadequacy score (A), and the percentage of women with no gender parity (HGPI), we also include the positive counterpart of these numbers, the empowerment headcount (I-H), the average adequacy score (I-A), and the percentage of women with gender parity (I-HGPI). Thus the A-WEAI provides a measure of both empowerment and disempowerment.

<sup>&</sup>lt;sup>12</sup> A-WEAI analysis follows the guidelines outlined in the "Instructional Guide on the Abbreviated Women's Empowerment in Agriculture Index" created by IFPRI in October, 2015

Table 5.3 5DE and GPI Results for the A-WEAI

Indicator	Women	Men
5DE	0.72	0.72
Disempowerment Score (I – 5DE)	0.28	0.28
% of Women Achieving Empowerment (I – H)	35.6%	38.4%
% of Women Not Achieving Empowerment (H)	64.4%	61.6%
Mean Disempowerment Score for not yet Empowered Women (A)	0.44	0.46
Mean 5DE Score for not yet Empowered Women (I-A)	0.56	0.54
n for 5DE	847	573
GPI Score (I – H <sub>GPI</sub> x I <sub>GPI</sub> )	0.92	
% of Women Not Achieving Gender Parity (H <sub>GPI</sub> )	26.9%	
% of Women Achieving Gender Parity $(I - H_{GPI})$	73.1%	
Average Empowerment Gap (I <sub>GPI</sub> )	28.2%	
n for GPI, Male and Female Households Only	525	
A-WEAI (0.9 x 5DE + 0.1 x GPI)	0.74	

The 5DE for the ZOI in Cambodia shows that 35.6% of women are empowered. Among the 64.4% of women who are not yet empowered, on average, they have inadequate achievements in 44% of the domains. Thus the women's disempowerment index is  $44\% \times 64.4\% = 0.283$  and the 5DE is 0.717. For men, 61.6% are not empowered with an average inadequacy score of 46%. Thus the men's disempowerment index is  $46\% \times 61.6\% = 0.283$  and the 5DE is also 0.717.

The GPI for the ZOI in Cambodia shows that 73.1% of women have gender parity with the primary male in their households. Of the 26.9% of women who are less empowered than the primary male in their household, the empowerment gap is 28.2%. Thus the overall GPI in the ZOI is  $I - (26.9\% \times 28.2\%) = 0.92$ .

# **5.3** Agricultural Production

**Table 5.4** 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), nonfarm 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.

Women and men both report relatively higher rates of participation in subsistence agriculture activities including food crop farming and livestock raising, and lesser participation in cash crop farming, non-farm economic activities, and wage employment. While men report higher

participation in all activities, women report similar or higher input into decisions than men on farm-based activities, yet men report much higher input into decisions on non-farm activities and wage employment.

Table 5.4 Economic activities and input in decisionmaking on production among surveyed women

	Participates	in activity	Has input <sup>1</sup> into decisions about activity		
Activity	Percent	n²	Percent	n <sup>1,3</sup>	
Total (All surveyed Women)	94.5%	982	84.6%	892	
Type of activity (Women)	-				
Food crop farming	71.7%	982	45.7%	701	
Cash crop farming	39.5%	982	43.6%	386	
Livestock raising	62.5%	982	30.3%	611	
Fishing or fishpond culture	37.9%	982	60.0%	371	
Non-farm economic activities	43.3%	982	41.9%	424	
Wage or salaried employment	5.7%	982	14.7%	55	
Total (All surveyed Men)	98.0%	644	82.0%	601	
Type of activity (Men)					
Food crop farming	75.4%	644	49.3%	484	
Cash crop farming	48.3%	644	42.3%	309	
Livestock raising	64.7%	644	28.8%	418	
Fishing or fishpond culture	40.5%	644	48.4%	261	
Non-farm economic activities	54.2%	644	56.1%	348	
Wage or salaried employment	9.9%	644	61.0%	64	

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia August, 2015.

<sup>&</sup>lt;sup>1</sup> Having input means that a woman reported having input into most or all decisions regarding the activity.

<sup>&</sup>lt;sup>2</sup> Estimates exclude households who have no primary adult female decisionmaker (PAFD) or whose data are missing/incomplete.

<sup>3</sup> Women who do not participate in an activity or report that no decision was made are excluded from these percentages.

**Table 5.5** shows the percentage of surveyed women and men who have input into the decisions made regarding the use of income derived from an activity. Women report higher input into use of income than men on all activities except wage employment and report highest input into income from fishing and food or cash crop farming, while less input into wage employment, the area where men have highest levels of input.

Table 5.5 Input in decisionmaking on use of income among surveyed women

	Has input <sup>1</sup> into use of income from activity						
_	Wome	en	Men				
Activity	Percent	n <sup>2,3</sup>	Percent	n <sup>2,3</sup>			
Total (All surveyed)	82.1%	949	70.9%	642			
Type of activity							
Food crop farming	53.7%	675	38.7%	465			
Cash crop farming	53.0%	385	36.5%	307			
Livestock raising	40.2%	598	26.7%	406			
Fishing or fishpond culture	62.9%	371	38.9%	261			
Non-farm economic activities	48.8%	424	41.0%	347			
Wage or salaried employment	24.2%	54	47.4%	62			

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia, August 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 5.6A** presents the percent distribution of surveyed women's perceived ability to contribute to decisions regarding various activities. The row percentages total to 100%.

Women report relatively consistent levels of contribution to decision making, with the exception of input into minor household expenses, where almost 80% of females reported a high extent of contribution to decisions. Women also report much higher levels of contribution than men on minor household decisions as well as on bringing crops to market.

Tables 5.4, 5.5, and 5.6 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 agricultural activities listed in the three tables. The *income* domain is comprised entirely of a single indicator

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

<sup>&</sup>lt;sup>2</sup> Estimates exclude households who have no primary adult female decisionmaker or whose data are missing/incomplete.

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

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.

Table 5.6.A Decisionmaking on production among surveyed women

	Extent to which					
Activity	Not at all	Small extent	Medium extent	High extent	Not applicable <sup>3</sup>	n
Getting inputs for agricultural production	0.8%	18.9%	36.1%	24.9%	19.3%	982
The types of crops to grow	1.0%	18.5%	34.4%	30.9%	15.3%	982
Whether to take crops to the market	0.8%	9.1%	27.9%	34.4%	27.8%	982
Livestock raising	2.2%	15.3%	34.5%	28.6%	19.3%	982
Her own wage or salary employment	1.4%	14.6%	26.6%	29.6%	27.8%	982
Major household expenditures	1.1%	14.8%	46.4%	33.6%	4.1%	982
Minor household expenditures	0.3%	5.4%	14.3%	79.5%	0.5%	982

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia August, 2015

<sup>&</sup>lt;sup>1</sup> Estimates exclude households who 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.

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.

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

Table 5.6.B Decisionmaking on production among surveyed men

	Extent to which					
Activity	Not at all	Small extent	Medium extent	High extent	Not applicable <sup>3</sup>	n
Getting inputs for agricultural production	0.9%	12.2%	36.7%	34.0%	16.2%	644
The types of crops to grow	1.2%	13.4%	39.9%	32.6%	13.0%	644
Whether to take crops to the market	2.0%	18.1%	38.0%	16.9%	25.0%	644
Livestock raising	1.1%	16.4%	40.8%	26.5%	15.2%	644
His own wage or salary employment	0.6%	16.4%	30.6%	28.1%	24.3%	644
Major household expenditures	1.1%	15.9%	53.1%	26.1%	3.8%	644
Minor household expenditures	11.1%	46.7%	27.0%	14.7%	0.6%	644

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia August, 2015

## **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 5.7** 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 to 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.

The most commonly owned assets are small durable goods and mobile phones, with more than 90% of households owning these items. When men were also asked about household assets, the levels of ownership were roughly the same across all assets.

Women make the most decisions with regards to livestock and fowl, with roughly 70% of women saying they can decide to buy, sell, rent, or gift these items. Across all assets, more than 60% of surveyed women can make a decision with regards to purchase, sell, gift, or rent a

<sup>&</sup>lt;sup>1</sup> Estimates exclude households who have no primary adult female decisionmaker or whose data are missing or incomplete. Men who do not participate in an activity, or who report that no decision was made, are excluded from these percentages.

When a primary adult male decisionmaker reports that he alone makes decisions about the specified activities, he is not asked any further questions, and is categorized during analysis as making his own decisions "to a high extent." When he reports making decisions about the specified activities in conjunction with other individuals, he is asked an additional question about the extent to which he feels he could make his 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.

<sup>&</sup>lt;sup>3</sup> This category includes respondents who report participating in the activity, but say that making the specified decision is not applicable to their situation.

given asset. Relative to women, men are less likely to make decisions on small livestock but are more likely to decide whether or not to sell, rent, or gift fish ponds and fish equipment.

Table 5.7.A Household ownership and surveyed women's control over productive resources

	Someone household item	owns	Woman can decide to purchase items		Woman can decide to sell/give/rent owned iter	
Type of resource	Percent	n¹	Percent	n¹	Percent	n <sup>1</sup>
Agricultural land	69.0%	982	72.2%	675	72.9%	675
Large livestock	39.8%	982	72.9%	393	73.0%	390
Small livestock	15.7%	982	68.3%	155	70.8%	152
Chickens, ducks, turkeys, and pigeons	69.8%	982	72.2%	680	74.3%	675
Fish pond or fishing equipment	9.4%	982	60.2%	93	62.3%	93
Non-mechanized farm equipment	30.3%	982	62.5%	292	65.4%	291
Mechanized farm equipment	28.1%	982	65.4%	276	65.3%	275
Nonfarm business equipment	12.7%	982	n/a		n/a	
House or other structures	51.8%	982	n/a		n/a	
Large consumer durables	57.4%	982	n/a		n/a	
Small consumer durables	97.1%	982	n/a	n/a n/a		
Cell phone	92.0%	982	n/a		n/a	
Non-agricultural land	71.9%	982	n/a		n/a	
Means of transportation	85.0%	982	n/a		n/a	

<sup>^</sup> Results not statistically reliable, n<30.

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

Source: ZOI interim survey, Cambodia August, 2015

<sup>&</sup>lt;sup>1</sup> 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.

Table 5.7.B Household ownership and surveyed men's control over productive resources

	Someone household item	owns	Men can decide to purchase items		Men can decide to sell/give/rent owned items	
Type of resource	Percent	n¹	Percent	n¹	Percent	n <sup>1</sup>
Agricultural land	72.%	644	68.5%	468	69.9%	466
Large livestock	43.5%	644	70.1%	282	72.9%	278
Small livestock	18.1%	644	62.9%	117	63.9%	115
Chickens, ducks, turkeys, and pigeons	74.6%	644	65.1%	478	68.8%	471
Fish pond or fishing equipment	12.3%	644	77.5%	80	82.4%	80
Non-mechanized farm equipment	32.9%	644	62.7%	208	65.1%	208
Mechanized farm equipment	34.0%	644	68.1%	219	69.2%	217
Nonfarm business equipment	15.0%	644	n/a		n/a	
House or other structures	52.5%	644	n/a		n/a	
Large consumer durables	63.5%	644	n/a		n/a	
Small consumer durables	95.9%	644	n/a		n/a n/a	
Cell phone	95.2%	644	n/a		n/a	
Non-agricultural land	72.7%	644	n/a		n/a	
Means of transportation	88.5%	644	n/a	/a n/a		

<sup>^</sup> Results not statistically reliable, n<30.

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

Source: ZOI interim survey, Cambodia August, 2015

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.

**Table 5.8** 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.

65% of women report that their household has some type of loan and the majority of these are cash loans. Some loans reported were both in-kind and cash. According to women, more than 60% of all loans come from either a formal institution or a friend or relative. There is little variation between loan sources on whether or not a woman can make a decision about the loan; however women are less likely to make a decision about microfinance loans relative to all other sources.

Men report very similar levels of loans by type; however, men are less likely to make decisions about loans relative to women. Women for example are much more likely to make a decision on a loan from a friend or relative or informal loan relative to men. 85% of women report that they can make a decision with regards to informal loans versus 71% of men.

Table 5.8.A Credit access among surveyed women

		Credit source (percent) <sup>I</sup>							
Estimate	Any source (percent)	Non- governmental organization	Informal lender	Formal lender	Friends or relatives	Group- based micro- finance			
Total receiving a loan (All surveyed women)	65.0%	1.6%	11.4%	36.6%	27.4%	11.0%			
Type of loan <sup>3</sup>									
In-kind loan	5.5%	6.2%	0.9%	6.2%	3.3%	1.9%			
Cash Ioan	97.6%	100%	99.1%	96.9%	98.9%	98.1%			
n <sup>2</sup>	981	15	109	356	270	106			
Total contributing to a credit decision (All surveyed women)	75.9%	66.0%	85.6%	74.7%	78.4%	58.4%			
Type of decisions	-		-	-					
On whether to borrow	75.3%	59.3%	84.6%	74.5%	77.7%	58.4%			
On how to use loan	73.4%	59.8%	81.9%	71.%	76.2%	56.5%			
n²	637	15	109	356	270	106			

<sup>^</sup> Results not statistically reliable, n<30.

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

<sup>&</sup>lt;sup>2</sup> Estimates exclude households who have no primary adult female decisionmaker or whose data are missing/incomplete.

<sup>&</sup>lt;sup>3</sup> Type of loan may not add up to 100%.. Some households have both in-kind and cash loans.

Table 5.8.B Credit access among surveyed men

	Credit source (percent) <sup>1</sup>					
Estimate	Any source (percent)	Non- governmental organization	Informal lender	Formal lender	Friends or relatives	Group- based micro- finance
Total receiving a loan (All surveyed men)	64.2%	1.3%	10.7%	39.5%	25.1%	12.4%
Type of loan <sup>3</sup>						
In-kind loan	6.7%	37.5%	4.2%	6.4%	3.0%	1.3%
Cash Ioan	96.8%	100%	95.8%	96.4%	99.4%	98.7%
n <sup>2</sup>	644	8	68	252	162	79
Total contributing to a credit decision (All surveyed men)	69.0%	63.2%	70.9%	73.8%	65.3%	50.1%
Type of decisions			-	-		
On whether to borrow	68.6%	63.2%	69.5%	73.4%	64.7%	50.1%
On how to use loan	66.9%	63.2%	69.5%	69.9%	63.5%	46.5%
n²	413	8	68	252	162	79

<sup>^</sup> Results not statistically reliable, n<30.

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

<sup>&</sup>lt;sup>2</sup> Estimates exclude households who have no primary adult female decisionmaker or whose data are missing/incomplete.

<sup>&</sup>lt;sup>3</sup> Type of loan may not add up to 100%.. Some households have both in-kind and cash loans.

# 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 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, 83.5% of surveyed women in the ZOI achieves adequacy in voicing her opinions on community matters in at least one of the community decisions relative to 90% of men. (**Table 5.9**).

Table 5.9 Comfort with speaking in public among surveyed women and men

	Women		Men	
Topics for public discussion	Comfortable speaking in public, Percent	n <sup>1</sup>	Comfortable speaking in public, Percent	n <sup>i</sup>
Total (All surveyed women)	83.5%	957	90.1%	637
Topics	-			
To help decide on infrastructure to be built in the community	79.8%	939	85.8%	631
To ensure proper payment of wages for public works or other similar programs	78.3%	889	86.4%	593
To protest the misbehavior of authorities or elected officials	59.3%	891	68.2%	599

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia August, 2015

The second indicator of the *leadership* domain is an individual's participation in a community organization. **Table 5.10** shows the percentage of surveyed women who report the existence of an organization in their community and the percentage of women who are active members of the organization. The results of this table include all women and men who say a given group does not exist or they do not know about such a group.

Across the ZOI, women are not likely to be involved in a group. Roughly 25% of women are members of at least one group, with the highest percentage involved with microfinance groups at 11% of the sample. Men generally are more likely to be in a group, with more men likely to be in local government relative to women.

<sup>1</sup> Estimates exclude households who have no primary adult female decisionmaker or whose data are missing/incomplete.

Table 5.10 Group membership among surveyed women

	Women		Men	
Group type	Is an active group member, Percent <sup>1</sup>	n²	Is an active group member, Percent <sup>1</sup>	n²
Total (All surveyed women and men)	24.9%	982	32.1%	644
Group type				
Agricultural producers' group	2.0%	982	3.4%	644
Water users' group	4.6%	982	4.9%	644
Forest users' group	3.9%	982	6.2%	644
Credit or microfinance group	11.1%	982	11.1%	644
Mutual help or insurance group	3.5%	982	3.6%	644
Trade and business association	0.5%	982	0.6%	644
Civic or charitable group	2.2%	982	2.8%	644
Local government	4.6%	982	14.1%	644
Religious group	7.5%	982	7.8%	644
Other	0.5%	982	0.4%	644

<sup>^</sup> Results not statistically reliable, n<30.

## 5.5 Time Use

The last domain of the WEAI is time use. This domain assesses women's work load as directly measured through a time allocation log, as well as the satisfaction felt by the surveyed woman with her leisure time. **Table 5.11** 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 5.11. In the ZOI, 91.9% of women reported being satisfied with their leisure time whereas 91% of men reported being satisfied with their leisure time.

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.

<sup>&</sup>lt;sup>2</sup> Estimates exclude households who have no primary adult female decisionmaker or whose data are missing/incomplete.

Table 5.11 Time allocation among surveyed women

	Women		M	en
Activity	Percent of women	Mean hours devoted	Percent of men	Mean hours devoted
Sleeping and resting	99.9%	11.01	100%	11.33
Eating and drinking	98.7%	1.23	99.8%	1.25
Personal care	87.8%	0.67	87.4%	0.68
School and homework	5.2%	0.09	2.9%	0.10
Work as employed	6.1%	0.40	16.2%	1.33
Own business work	26.3%	1.78	26.4%	1.85
Farming/livestock/fishing	40.2%	1.68	59.3%	3.41
Shopping/getting services	21.0%	0.30	4.6%	0.07
Weaving, sewing, textile care	6.3%	0.13	1.4%	0.01
Cooking	87.6%	1.46	15.7%	0.18
Domestic work (fetching food and water)	70.0%	1.89	46.3%	1.20
Care for children/adults/elderly	32.1%	1.47	12.7%	0.32
Travel and commuting	13.7%	0.26	20.3%	0.46
Watching TV/listening to radio/reading	52.8%	1.53	55.1%	1.54
Exercising	2.4%	0.03	5.5%	0.06
Social activities and hobbies	8.0%	0.17	10.4%	0.25
Religious activities	3.3%	0.09	2.0%	0.06
N	982	982	644	644

<sup>^</sup> Results not statistically reliable, n<30.

Outside of sleeping, eating, and personal care, a large majority of women cook and conduct domestic work. More time is spent on domestic work than any other activity outside of sleeping. In addition, women on average report almost two hours of time on own business work and over one and half hours of agriculture work. Relative to men, women are more likely to allocate time to child care, domestic work, and cooking. The predominant leisure activity for women is watching TV with roughly half of respondents reporting that they watch TV and spend one and a half hours doing so.

Men are much more likely to spend time on farm and livestock activities relative to women. Roughly 60% of men reported farm activities relative to 40% of women, which is the opposite finding according to the FTF Cambodia Multi-year Strategy guide. Men spend an average of almost three and a half hours on farm work, by far the largest time commitment in their day outside of sleeping. Men also spend the same amount of leisure time as women do on watching television and listening to the radio.

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 fifteen minute period.

# 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 HHS is used to calculate the prevalence of households in the Cambodia 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-I); 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.). <sup>13,14</sup>

The hunger season in Cambodia occurs between roughly October to November, falling a couple months after data collection for the ZOI interim study.

**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.

In the ZOI, the prevalence of hunger (defined as a score of 2 or higher on the household hunger scale) is estimated at 8.65%. We find a statistically significant relationship between household hunger (measured as "little to no hunger) and both gendered household type and education level. Households with both a male and female adult reported lower rates of hunger, as did households with higher levels of education. We do not find any statistically significant relationship between household size and hunger. Large households report much higher rates of hunger though the sample size is too small (n=13) to make statistically reliable conclusions based on this data.

<sup>14</sup> 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.

<sup>&</sup>lt;sup>13</sup> Deitschler, Ballard, Swindale, & Coates (2011).

Table 6.1 Household hunger

		Percent		
Characteristic	Little to no hunger <sup>a</sup>	Moderate hunger	<b>S</b> evere hunger	n <sup>l</sup>
Total (All households)	91.35%	7.47%	1.18%	1,019
Gendered household type <sup>a</sup>	-			_
Male and female adults	92.1%	6.6%	1.3%	887
Female adult(s) only	85.8%	13.5%	0.67%	129
Male adult(s) only	100%	0%	0%	3
Household size				
Small (1-5 members)	91.6%	7.0%	1.4%	704
Medium (6-10 members)	91.0%	8.7%	0.3%	302
Large (11+ members)	85.2%	6.8%	8.0%	13
Household educational attainme	ent <sup>a</sup>			
No education	86.1%	13.2%	0.65%	154
Primary	91.6%	6.4%	2.0%	510
Secondary or more	93.2%	6.5%	0.28%	355

<sup>^</sup> Results not statistically reliable, n<30.

# 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 non-pregnant 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).

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.

<sup>&</sup>lt;sup>a</sup> 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.</p>

#### **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 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.

The mean WDDS for the ZOI is estimated at 4.26 with a median of 4. We do not find any statistically significant associations between WDDS and age of female, gendered household type, or household size. We do find a strong positive association between WDDS and the female's educational attainment. We also find that households reporting little to no hunger on the household hunger scale are associated with significantly higher WDDS.

Table 6.2 Women's dietary diversity score

Characteristic	Mean <sup>a</sup>	Median	n <sup>l</sup>
Total (All women 15-49)	4.26	4	1,026
Age			
15-19	4.21	4	158
20-24	4.25	4	182
25-29	4.37	4	171
30-34	4.18	4	189
35-39	4.43	4	124
40-44	4.14	4	95
45-49	4.19	4	107
Educational attainment <sup>a</sup>			
No education	3.92	4	165
Primary	4.17	4	500
Secondary or more	4.53	5	361
Gendered household type			
Male and female adults	4.26	4	935
Female adult(s) only	4.17	4	91
Household size			
Small (1-5 members)	4.21	4	593
Medium (6-10 members)	4.29	4	393
Large (11+ members)	4.54	5	40
Household hunger <sup>a</sup>			
Little to no hunger	4.31	4	930
Moderate or severe hunger	3.67	4	96

<sup>^</sup> Results not statistically reliable, n<30.

## 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

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.

<sup>&</sup>lt;sup>a</sup> 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.

vitamin A-rich vegetables and fruits; (9) other fruits; and (10) other vegetables.<sup>15</sup> 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.<sup>16</sup>

**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.

Across the ZOI, 44.33% of women report meeting the minimum dietary diversity score. While we do not find any trends in association of minimum dietary diversity and age or gendered household type, we find a positive, though not statistically significant, association with household size, with a larger proportion of women from larger households meeting the minimum dietary diversity score. As with overall dietary diversity, we find statistically significant relationships between minimum dietary diversity and education and household hunger, with more educated women and women who come from household reporting little to no hunger being more likely to meet the minimum dietary diversity score.

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<sup>&</sup>lt;sup>15</sup> 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.

<sup>&</sup>lt;sup>16</sup> For more information, refer to Volume II: 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 <a href="http://www.feedthefuture.gov/sites/default/files/resource/files/ftf\_guidanceseries\_volII\_interimassessment\_oct20\_14.pdf">http://www.feedthefuture.gov/sites/default/files/resource/files/ftf\_guidanceseries\_volII\_interimassessment\_oct20\_14.pdf</a>.

Table 6.3 Women's minimum dietary diversity

Characteristic	Percent <sup>a</sup>	n <sup>i</sup>
Total (All Women 15-49)	44.33%	1,026
Age		
15-19	47.4%	158
20-24	47.0%	182
25-29	48.1%	171
30-34	39.1%	189
35-39	45.9%	124
40-44	38.8%	95
45-49	41.6%	107
Educational attainment <sup>a</sup>		
No education	32.1%	165
Primary	41.2%	500
Secondary or more	54.4%	361
Gendered household type		
Male and female adults	44.2%	935
Female adult(s) only	45.2%	91
Household size		
Small (1-5 members)	42.2%	593
Medium (6-10 members)	46.0%	393
Large (11+ members)	60.6%	40
Household hunger <sup>a</sup>		
Little to no hunger	46.6%	930
Moderate or severe hunger	22.9%	96

<sup>^</sup> Results not statistically reliable, n<30.

**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. We find statistically significant positive associations between achieving the minimum dietary diversity score and consumption of each food group, with the exception of the grains group, where we find very high consumption across both groups. The achieving group is defined as the women who meet the minimum dietary diversity status of consuming five or more of the nine food groups. The not achieving group consists of women who do not meet the minimum requirement for dietary diversity.

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.

<sup>&</sup>lt;sup>a</sup> 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.</p>

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

	Percent of women according to achievement of a minimum dietary diversity <sup>a</sup>			
Category	Achieving	Not achieving		
Women consuming a specific food group				
Grains, roots and tubers	97.99%	97.17%		
Legumes and beans <sup>a</sup>	7.78%	0.67%		
Nuts and seeds <sup>a</sup>	3.09%	0.49%		
Dairy products <sup>a</sup>	17.48%	3.12%		
Meat and organ meats <sup>a</sup>	98.89%	90.29%		
Eggs <sup>a</sup>	69.26%	23.99%		
Vitamin A-rich dark green leafy vegetables <sup>a</sup>	90.96%	53.87%		
Other Vitamin A-rich vegetables and fruits <sup>a</sup>	51.38%	15.47%		
Other fruits <sup>a</sup>	49.32%	13.25%		
Other vegetables <sup>a</sup>	75.84%	41.36%		
N	455	571		

<sup>^</sup> Results not statistically reliable, n<30.

## **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 by educational attainment of the child's mother.

Overall, we find that 74.62% of children under 6 months are exclusively breastfed, based on DHS data. We do not find any statistically significant associations between exclusive

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.

breastfeeding and sex of the child or education of the mother, though the sample size (n=90) is relatively small for statistical analysis.

Table 6.5 Prevalence of exclusive breastfeeding among children under 6 months

Characteristic	Percent <sup>a</sup>	n' 90	
Total (All children under 6 months)	74.62%		
Child sex	-		
Male	72.86%	46	
Female	76.31%	44	
Mother's educational attainment			
No education	52.48%	10	
Primary	78.44%	41	
Secondary or more	76.56%	39	

<sup>^</sup> Results not statistically reliable, n<30.

Source: DHS Cambodia 2014.

#### 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.

To calculate MAD we must calculate both the dietary diversity and minimum feeding frequency. We first calculate which of the following food groups the child has consumed in the past 24 hours: Grains, roots, and tubers; Legumes and nuts; Dairy products (for breastfed children only); Flesh foods; Eggs; Vitamin A-rich fruits and vegetables; and Other fruits and vegetables. To achieve the minimum dietary diversity, breastfed children must have consumed at least 4 of the 7 food groups, while non-breastfed children must have consumed 4 or more of the 6 groups (excluding dairy) in addition to at least 2 milk feedings. Next, we calculate the minimum meal frequency (MMF). For breastfed children, this requires at least two meals of solid, semisolid or soft foods for children age 6-8 months and three meals for children 9-23 months. For non-breastfed children, the MMF is met by at least 4 feedings of solid, semi-solid, or soft foods

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.

<sup>&</sup>lt;sup>a</sup> 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.

or milk, with at least two of these feedings being milk. To achieve MAD, a child must satisfy both the minimum dietary diversity and the minimum feeding frequency.

**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 age and sex categories, as well as caregivers' educational attainment. Household characteristics include gendered household type, household size, and household hunger.

Across the ZOI, we estimate that 26.50% of all children age 6-23 months receive a minimum acceptable diet. We do not find any statistically significant associations between household, child or caregiver characteristics and likelihood of receiving a minimum acceptable diet, though the sample size of children 6-23 months (n=179) is relatively small for statistical analysis. Nevertheless, we do find that women report boy children as nearly 10 percentage points more likely to receive a minimum acceptable diet than girl children.

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

Characteristic	Percent <sup>a</sup>	n¹
Total (All children 6-23 months)	26.50%	179
Child sex		
Male	31.31%	89
Female	21.81%	90
Child age		
6-11 months	19.20%	56
12-17 months	30.42%	68
18-23 months	29.14%	55
Caregiver's educational attainment <sup>2</sup>		
No education	30.76%	26
Primary	23.99%	91
Secondary or more	28.47%	62
Gendered household type		
Male and female adults	26.9%	169
Female adult(s) only	20.4%	10
Household size		
Small (I-5 members)	24.46%	101
Medium (6-10 members)	29.80%	73
Large (11+ members)	19.63%	5
Household hunger		
Little to no hunger	27.25%	156
Moderate or severe hunger	21.38%	23

<sup>^</sup> Results not statistically reliable, n<30.

**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.

We find that breastfeeding is significantly positively associated with both achieving the MMF and MDD. Additionally, breastfeeding is significantly correlated with reduced consumption of dairy products and other (non-vitamin A-rich) fruits and vegetables. Although not statistically

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.

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.

significant, we generally see higher consumption of all other food categories, with the exception of legumes and nuts, among non-breastfed children. We also tend to see higher consumption of the different food groups among children older than 11 months.

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

		Percent			
	All	By child age (in months)		nths)	
MAD components and food groups	children <sup>a</sup>	6 to 11	12 to 17	18 to 23	
Breastfed children					
Achieving minimum meal frequency <sup>a</sup>	66.18%	69.51%	63.28%	65.54%	
Achieving minimum dietary diversity <sup>a</sup>	46.53%	27.32%	57.32%	62.19%	
Consuming:					
Grains, roots, and tubers	96.04%	91.90%	100%	96.12%	
Legumes and nuts	7.19%	2.00%	9.94%	11.74%	
Dairy products <sup>a</sup>	32.08%	9.73%	35.01%	69.57%	
Flesh foods	74.67%	58.03%	85.93%	84.42%	
Eggs	35.34%	16.16%	48.55%	46.13%	
Vitamin A-rich fruits and vegetables	51.34%	45.63%	57.25%	50.60%	
Other fruits and vegetables <sup>a</sup>	37.20%	27.84%	41.33%	47.09%	
N	128	50	52	26	
Non-breastfed children					
Achieving minimum meal frequency <sup>a</sup>	33.21%	33.98%	43.56%	27.47%	
Achieving minimum milk feeding frequency	37.34%	50.78%	43.56%	31.24%	
Achieving minimum dietary diversity <sup>a</sup>	13.71%	16.80%	12.26%	13.86%	
Consuming:					
Grains, roots, and tubers	100%	100%	100%	100%	
Legumes and nuts	3.95%	0%	0%	6.89%	
Dairy products <sup>a</sup>	49.08%	50.78%	62.44%	41.53%	
Flesh foods	86.17%	66.02%	80.94%	93.09%	
Eggs	45.28%	32.77%	37.21%	52.18%	
Vitamin A-rich fruits and vegetables	62.54%	51.09%	68.77%	61.51%	
Other fruits and vegetables <sup>a</sup>	54.72%	50.06%	55.16%	55.43%	
N	51	6	16	29	

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia 2015.

<sup>&</sup>lt;sup>a</sup> 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.</p>

# **6.2.3** Consumption of Targeted Nutrient-Rich Value Chain Commodities

U.S. Government-funded programming supports nutrition-sensitive agricultural value chain<sup>17</sup> 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 nutrient-rich commodities or products made from nutrient-rich commodities being promoted by these value chain activities.

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

- I) Increased production of the commodity must be promoted through a U.S. Government-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.

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 Cambodia include: fish, yard long bean, and moringa. However, at the time of survey instrument development, the targeted commodities had not been identified and separate response categories were not included for yard long bean and moringa. Accordingly, results are presented only for consumption of fish/seafood.

#### 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, household size, and household hunger.

<sup>&</sup>lt;sup>17</sup> From Martin Webber and Patrick Labaste, "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)."

68.31% of women in the ZOI consumed fish, with little variation across age group, gendered household type, education or household hunger. We do find a statistically significant positive correlation with household size, with larger households much more likely to consume fish.

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

	Percent	
Characteristic	Fish/Seafood <sup>a</sup>	n <sup>1</sup>
Total (All women 15-49)	68.31%	1,026
Age	<u> </u>	
15-19	63.90%	158
20-24	68.12%	182
25-29	66.83%	171
30-34	73.10%	189
35-39	66.37%	124
40-44	72.72%	95
45-49	67.40%	107
Educational attainment		
No education	68.85%	165
Primary	68.31%	500
Secondary or more	68.06%	361
Gendered household type		
Male and female adults	67.9%	935
Female adult(s) only	72.4%	91
Household size <sup>a</sup>		
Small (1-5 members)	65.87%	593
Medium (6-10 members)	70.29%	393
Large (11+ members)	85.33%	40
Household hunger		
Little to no hunger	68.75%	930
Moderate or severe hunger	64.04%	96

<sup>^</sup> Results not statistically reliable, n<30.

Source: ZOI interim survey, Cambodia 2015.

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.

<sup>&</sup>lt;sup>a</sup> 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.

#### 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, household size, and household hunger.

52.49% of children between age 6 and 23 months consumed fish. Though not statistically significant, the youngest age group (under 6 months) show approximately 20 percentage points less consumption. We find a statistically significant correlation with sex of the child, with boys much more likely to have consumed fish, and with education of the caregiver, with lower levels of education associated with higher levels of fish consumption.

Table 6.9 Children's consumption of targeted nutrient-rich value chain commodities

	Percent		
Characteristic	Fish/Seafood <sup>a</sup>	n <sup>i</sup>	
Total			
(All children	52.49%	179	
6-23 months)	-		
Child sex <sup>a</sup>	41.000/		
Male	61.93%	89	
Female	43.23%	90	
Child age			
6-11 months	39.46%	56	
12-17 months	57.37%	68	
18-23 months	59.78%	55	
Caregiver's educational attain	ment <sup>2</sup>		
No education	61.45%	26	
Primary	50.69%	91	
Secondary or more	51.45%	62	
Gendered household type			
Male and female adults	53.3%	169	
Female adult(s) only	39.0%	10	
Household size			
Small (1-5 members)	51.91%	101	
Medium (6-10 members)	54.10%	73	
Large (11+ members)	40.53%	5	
Household hunger			
Little to no hunger	51.97%	156	
Moderate or severe hunger	56.14%	23	

<sup>^</sup> Results not statistically reliable, n<30.

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.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>a</sup>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.

## 7. Nutritional Status of Women and Children

This section presents findings related to the FTF 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 Body Mass Index (BMI) as well as the BMI categories of underweight (BMI < 18.5), normal weight (18.5  $\leq$  BMI < 25.0), overweight (25.0  $\leq$  BMI < 30.0), and obese (BMI  $\geq$  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, household size, and household hunger.

Data shows that 69.5% of all women between ages 15-49 have normal weight, with an average BMI of 22.2. When disaggregated by age, younger women are much more likely to be underweight with almost 23% of women aged 15 to 1 estimated to be underweight. As women age, though, the percentage of women recorded as underweight decreases while the percentage of women recorded as being overweight increases. About 47.3 % of all overweight women are above the age of 40. The results of BMI and being underweight were significant when compared to age.

Additionally, we find a significant association between BMI and education attainment. The more education a woman has, the more likely she will have a lower BMI. Women with secondary education or higher are more likely to be of an average weight or underweight relative to women with lower education attainment. Household size does not have a significant association with BMI or being underweight however larger households have slightly higher rates of being overweight.

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

Characteristic	Body Mass Index (BMI) category (percent) b					
	Mean BMI <sup>a</sup>	Under- weight <sup>c</sup>	Normal weight	Over- weight	Obese	n <sup>i</sup>
Total (All women age 15-49)	22.2	12.3%	69.5%	15.0%	3.2%	2285
Ageac				-	-	
15-19	20.3	22.8%	73.1%	3.9%	0.1%	397
20-24	21.3	16.4%	75.5%	5.2%	2.9%	378
25-29	22.1	13.8%	68.4%	14.6%	3.2%	378
30-34	22.6	6.3%	72.8%	18.0%	2.9%	373
35-39	23.4	5.5%	65.3%	26.5%	2.7%	213
40-44	23.3	7.4%	62.3%	25.3%	5.0%	275
45-49	23.6	7.6%	63.4%	22.0%	7.1%	271
Educational attainment <sup>a</sup>						
No education	23.0	10.1%	64.4%	19.2%	6.3%	346
Primary School	22.5	11.1%	69.1%	16.3%	3.5%	1013
Secondary and higher	21.4	14.8%	72.5%	11.4%	1.3%	926
Household size						
Small (1-5 members)	22.2	12.2%	70,0%	14.7%	3.1%	1319
Medium (6-10 members)	22.0	13.0%	68.3%	16.3%	2.4%	887
Large (11+ members)	23.5	4.7%	74.8%	6.0%	14.5%	79

<sup>^</sup> Results not statistically reliable, n<30.

Source: Cambodia DHS, Cambodia August, 2014

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.

# 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 (<-2 SD). The stunting measures presented below include the Feed the Future stunting indicator of moderate or severe stunting combined (<-2 SD) as well as the indicator for severe stunting (<-3 SD). 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, household size, and household hunger.

Across the ZOI, 33.7% of all children under five are stunted, with 11.9% being severely stunted. As children age, the percentage of stunted youth increases. This association with age is statistically significant. Statistically significant associations are also found between the caregiver's educational attainment and the child's likelihood of being stunted. Children have higher rates of stunting if the primary caregiver has no education, at 46%, relative to children with a primary caregiver who has a secondary school or higher education at roughly 23%.

8 WHO.	(2006).	

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

	% Stunted	% Severely stunted	Mean	
Characteristic	(<-2 SD) <sup>a</sup>	(<-3 SD)	Z-score <sup>b</sup>	n <sup>l</sup>
Total (All children under 5 years)	33.7%	11.9%	-1.39	1009
Child sex <sup>b</sup>				
Male	36.3%	14.2%	-1.55	500
Female	30.9%	9.4%	-1.22	509
Child age <sup>a, b</sup>				
0-11 months	17.2%	7.6%	-0.10	184
12-23 months	31.9%	14.1%	-1.46	221
24-35 months	31.4%	10.2%	-1.56	214
36-47 months	46.7%	16.1%	-1.97	191
48-59 months	41.5%	10.8%	-1.77	199
Caregiver's educational attainme	nt <sup>2,a,b</sup>			
No education	46.0%	16.0%	-1.67	160
Primary	35.5%	12.0%	-1.47	467
Secondary or more	22.6%	7.1%	-0.97	271
Household size				
Small (1-5 members)	31.1%	9.7%	-1.26	530
Medium (6-10 members)	37.6%	14.4%	-1.54	420
Large (11+ members)	28.7%	13.9%	-1.50	59

<sup>^</sup> Results not statistically reliable, n<30.

Source: DHS Cambodia 2014.

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.

<sup>&</sup>lt;sup>2</sup> The DHS 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.

## 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 (<-2 SD) as well as the indicator for severe wasting (<-3 SD), and the percentage of children who are overweight (>2 SD) and obese (>3 SD). 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, household size, and household hunger.

Male children has slightly higher prevalence of wasting (11%) than females (9.5%), but the association by gender is not statistically significant. Children under the age of I recorded the highest incidence of being wasted (14.7%), severely wasted (8.5%), overweight (10.7%) and being obese (7.6%). The percentages across all parameters improve with the age characteristic, and are statistically significant. However, the oldest children also are more likely to be wasted at almost 15%. No statistically significant associations were found between a child's likelihood of being wasted and household size or caregiver's educational attainment.

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

		% Severely				
	% Wasted	wasted	% Overweight	% Obese	Mean	
Characteristic	(<-2 SD) <sup>a</sup>	(<-3 SD)	(> +2SD) b	(> +3SD)	<b>Z</b> -score <sup>c</sup>	n <sup>1</sup>
Total (All children under 5 years)	10.3%	3.4%	3.0%	2.1%	-0.39	1009
Child sex						
Male	11.0%	3.8%	3.5%	2.9%	-0.32	500
Female	9.5%	2.9%	2.6%	1.3%	-0.46	509
Child ageabc						
0-11 months	14.7%	8.5%	10.7%	7.6%	0.54	184
12-23 months	8.2%	3.6%	1.5%	1.1%	-0.56	221
24-35 months	6.0%	1.3%	1.2%	0.9%	-0.32	214
36-47 months	9.3%	3.1%	1.5%	1.2%	-0.70	191
48-59 months	14.8%	0.8%	1.1%	0.3%	-0.85	199
Caregiver's educational	attainment <sup>2</sup>					
No education	13.0%	7.7%	3.6%	3.2%	-0.80	160
Primary	8.6%	2.6%	3.1%	2.1%	-0.12	467
Secondary or more	12.2%	3.3%	4.1%	2.2%	-0.61	271
Household size						
Small (1-5 members)	10.7%	3.9%	2.8%	1.5%	-0.63	530
Medium (6-10 members)	10.7%	2.9%	2.9%	2.8%	-0.25	420
Large (11+ members)	3.1%	1.9%	6.4%	2.3%	1.10	59

<sup>^</sup> Results not statistically reliable, n<30.

Source: DHS, Cambodia 2014

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> The DHS 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.

# 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 (<-2 SD) as well as the indicator for severe underweight (<-3 SD). 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, household size, and household hunger.

Across the ZOI, 25.1% of all children under five were reported as underweight. Chances of being underweight are found to have statistically significant associations with the child's age and caregiver's educational attainment. The prevalence of being underweight increases with the age of the child as well as with lower educational attainment from the primary caregiver.

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

Characteristic	% Underweight (<-2 SD) <sup>a</sup>	% Severely underweight (<-3 SD)	Mean Z-score <sup>b</sup>	n¹
Total (All children under 5 years)	25.1%	6.3%	-1.22	1012
Child sex				
Male	25.8%	6.8%	-1.29	500
Female	24.3%	6.1%	-1.15	512
Child age <sup>a b</sup>				
0-11 months	10.8%	4.3%	-0.42	186
I2-23 months	18.0%	5.8%	-1.12	221
24-35 months	23.3%	5.9%	-1.31	214
36-47 months	36.7%	8.8%	-1.62	191
48-59 months	38.4%	7.4%	-1.63	200
Caregiver's educational attainment <sup>2 a</sup>	b			
No education	35.4%	14.8%	-1.54	161
Primary	24.8%	4.4%	-1.24	469
Secondary or more	18.0%	4.0%	-0.99	271
Household size				
Small (1-5 members)	22.6%	5.7%	-1.16	530
Medium (6-10 members)	29.2%	7.9%	-1.32	422
Large (11+ members)	17.9%	2.6%	-1.13	60

<sup>^</sup> Results not statistically reliable, n<30.

Source: DHS, Cambodia 2014.

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.

<sup>&</sup>lt;sup>2</sup> The DHS 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.

# 8. Summary and Conclusions

#### **Household Economic Status**

Though 91.5% of the ZOI population falls above the \$1.25 poverty threshold and the depth of poverty is 2.2%, there are important household dynamics associated with economic status. Unsurprisingly, increasing educational attainment is significantly associated with lower levels of poverty and higher levels of expenditures. Interestingly, for depth of poverty, it is only households with secondary or higher levels of education with decreased depth of poverty and consumption shortfall.

Gendered household type is also an important factor related to economic status. Relative to households with only female adults, households with both a male and female adult report significantly higher expenditures and less depth of poverty. Though not significant, we also see a higher consumption shortfall and almost 4.5 percentage point increase in poverty among households with only female adults.

#### Women's Empowerment in Agriculture Index Indicators

Overall, we find that women report relatively high levels of empowerment in agriculture, relative to their male counterparts. Women report similar levels of participation in agriculture related tasks as men, while men report much higher input into decisions on non-farm activities and wage employment. Women also report higher input into use of income than men on all activities except wage employment. Across all domains of productions, more than 50% of women state they can make their own decisions to a medium or great extent.

Across all assets, more than 60% of surveyed women can make a decision with regards to purchase or sale of an asset. Related to loans, Men report very similar levels of loans by type; however men are less likely to make decisions about loans relative to women.

In terms of voicing opinions and participation in groups, women seem to be less empowered relative to men, but still report relatively high levels of empowerment. 83.5% of surveyed women in the ZOI achieves adequacy in voicing her opinions on community matters in at least one of the community decisions relative to 90% of men. However, women are not likely to be involved in a group. Roughly 25% of women are members of at least one group, about 7 percentage points lower than men, and with men much more likely to be involved in government groups.

In terms of time use, we find that women tend to be much more involved in domestic work, child care, and cooking relative to men. Men are much more likely to spend time on farm and livestock activities relative to women. Roughly 60% of men reported farm activities relative to 40% of women, which is the opposite finding according to the FTF Cambodia Multi-year Strategy guide.

### **Hunger and Dietary Intake**

Similar to economic status, while we find a relatively low level of overall hunger, estimated at 8.65% across the ZOI, we find important differences across household types. Households with both a male and female adult reported lower rates of hunger, as did households with higher levels of education. While education and household hunger are significantly associated with WDDS, we do not find a relationship between WDDS and gendered household type.

Overall, 74.62% of children under 6 months are exclusively breastfed, based on DHS data. We do not find any statistically significant associations between exclusive breastfeeding and sex of the child or education of the mother, though the sample size (n=90) is relatively small for statistical analysis. Across the ZOI, 26.5% of all children age 6-23 months receive a minimum acceptable diet, which incorporates both dietary diversity and minimum feedings. We do not find any statistically significant associations between household, child or caregiver characteristics and likelihood of receiving a minimum acceptable diet, though the sample size of children 6-23 months (n=179) is relatively small for statistical analysis. Nevertheless, we do find that women report boy children as nearly 10 percentage points more likely to receive a minimum acceptable diet than girl children.

#### **Nutritional Status of Women and Children**

Data shows that 69.5% of all women between ages 15-49 have normal weight. When disaggregated by age, younger women are significantly more likely to be underweight with almost 23% of women aged 15 to 19 estimated to be underweight. Additionally, we find a significant association between BMI and education attainment. The more education a woman has, the more likely she will have a lower BMI. Women with secondary education or higher are more likely to be of an average weight or underweight relative to women with lower education attainment.

For children's nutritional status, we again not the association of increased educational attainment and decreased stunting and wasting. Across the ZOI, 33.7% of all children under five are stunted and 25.1% were reported as underweight. As children age, the percentage of stunted and wasted youth increases. Male children have slightly higher prevalence of wasting (11%) than females (9.5%), but the association by gender is not statistically significant.

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# Appendix I. Methodology

# A1.1 Sampling and Weighting

#### Sample Size Calculation

Method for Calculating Sample Size. 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 by Michigan State University for USAID to provide point estimates of indicator values rather than to detect change in indicator values over time. Calculation of sample size for point estimates can be done with standard formulas. Equations to calculate the sample size for continuous variables and proportions are given below.

Point estimate sample sizes for continuous variables, such as expenditures, can be calculated with:

$$N = Deff(\frac{\frac{Z_{\alpha}\sigma}{2}}{M})^2$$

Where N is the sample size, Deff is the design effect,  $Z_{\alpha/2}$  is the Z value (1.96 for 95% confidence level),  $\sigma$  is the standard deviation and M is the mean value times the percent margin of error.

Point estimate sample sizes for proportions, such as poverty, stunting and wasting can be calculated with:

$$N = Deff \frac{Z_{\alpha}^{2} (p(1-p))}{M^{2}}$$

Where p is the proportion and M is the proportion margin of error.

The margin of error in these equations determines the amount of precision the indicator estimates will have. For continuous variables such as expenditures, the margin of error will be based on the mean indicator value times 0.10, which implies that the margin of error in the confidence interval of the indicator estimate does not exceed 10% of the mean value. The margin of error for proportions (e.g., poverty, stunting and wasting) will be calculated with 0.10, which implies an error of 10% of the indicator value range from 0 to 1.

Standard deviations and design effects for sample size calculation have been estimated using baseline survey data. We will calculate sample sizes using projected interim indicator values based on the Mission's 2015 targets in the Feed the Future Monitoring System (FTFMS). For the indicators for which Mission 2015 targets are not available, projected interim values will be calculated based on a 10% change from baseline.

All sample sizes have been further adjusted for non-response using an estimated rate of 10%. 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 five 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 have been estimated based on baseline survey data, and used to calculate the number of households needed for that indicator.<sup>19</sup>

**Sample Size Requirements.** A key part of calculating the sample size is determining the indicators upon which to base the sample size calculations. Sample size calculations were conducted for 11 of the target indicators expected to require the highest sample sizes. The steps to calculate the sample size for the interim indicator assessment were as follows:

- I. Calculate the sample size and required number of households for each of the FTF indicators.
- 2. Determine which key indicator to be collected in the ZOI survey requires the largest sample size. Select that sample size to determine the sample size of the ZOI survey.
- 3. Using estimates from the baseline survey of what proportion of the population is children 0-5 months and average number of household members, confirm that at least 70 children in this age range are likely to be encountered given the number of households in the sample. This will help ensure that data are collected on the minimum sample size required to make reliable estimates for exclusive breastfeeding. If this calculation yields a larger sample size than that estimated in Step 2 above, this sample size will be determinant.

Estimated sample sizes for the four key FTF indicators, women's dietary diversity indicators, and exclusive breastfeeding indicator demonstrate that 906 households to for the required level of precision across all indicators. This is the largest sample size needed for all indicators, and as a result makes up the final sample size for the interim survey.

#### Weighting

Design weights were calculated based on the separate sampling probabilities for each sampling stage and for each cluster. We have:

 $P_{1hi}$  = first-stage sampling probability of the i-th cluster in stratum h

<sup>&</sup>lt;sup>19</sup> See 2012 addendum to Magnani, Robert. 1999. Sampling Guide. Washington, D.C.: FHI 360/FANTA. http://www.fantaproject.org/sites/default/files/resources/Sampling-1999-Addendum-2012-ENG\_0.pdf

 $P_{2hi}$  = second-stage sampling probability within the i-th cluster (household selection)

The first-stage probability of selecting cluster *i* in the sample is:

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

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

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

Where:

 $m_h =$  number of sample clusters selected in stratum h

 $N_{hi}$  = total population in the frame for the i-th sample cluster in stratum h

 $N_h = total population in the frame in stratum h$ 

 $n_{hi}$  = number of sample households selected for the i-th sample cluster in stratum h

 $L_{hi}$  = number of households derived from the village chief's roster for the i-th sample cluster in stratum h

The overall selection probability of each household in cluster i of stratum h is the product of the selection probabilities of the two stages, and the design weight for each household in cluster i of stratum h is the inverse of its overall selection probability.

The sampling weight was calculated with the design weight corrected for non-response for each of the selected clusters. Response rates were calculated at the cluster level as ratios of the number of interviewed units over the number of eligible units, where units could be household or individual (e.g., woman, child). The household sampling weight was calculated by dividing the household design weight by the household response rate. The individual sampling weight was calculated by dividing the household sampling weight by the individual response rate.

# **A1.2** Poverty Prevalence and Expenditure Methods

#### **Data Source**

Social Impact used Module E from the FTF ZOI PBS Interim Instrument.

#### Data Preparation

#### Data excluded from analysis:

- Often various types of consumption goods or expenses are excluded; include in the
  appendix a rationale for the items that are excluded from the indicator calculation. For
  example, wedding and funeral ceremonies are often excluded because these are large,
  infrequent expenses that impose considerable measurement error into the consumption
  aggregates.
  - All variables from Module E of the FTF ZOI PBS Interim Instrument were used to compile the poverty prevalence and expenditure methods indicators. The World Bank uses imputed rents but the Cambodian method does not. However, using either did not have an impact on the poverty prevalence as not enough observations had imputed rents. Thus either method resulted in the same poverty rate.
- Durable goods were not depreciated according to the approach advocated by Deaton and Zaidi (2002)?
- If housing is included in the estimate, what method was used for calculating a rental value?
  - Housing was included in the estimate. The imputed rental value was included for households that received free housing from their employer or otherwise.
     However, the results for poverty were exactly the same with or without imputing rental values similar to the World Bank approach.

#### Imputations:

- How were missing data handled?
  - Missing data was not imputed and were left as missing. Very few variables had large numbers of missing values outside of any normal expectation.

- Were the data inspected for outliers or other features of data quality?
  - The only outliers dealt with were expenditure amounts less than the smallest bill in the LCU, riel. These were changed to missing.
- Were imputations used?
  - No imputations were used.

#### Prices:

- Were market surveys performed to identify quantity conversions and prices?
  - o No
- Were prices adjusted to make the data comparable across time or across areas of the
  country? For example, many national household budget and LSMS surveys are
  conducted throughout a calendar year. As market prices and consumption patterns vary
  across areas of a country and through different seasons of the year, Paasche or
  Laspeyres Price Indexes are often used to put all price measurements into a single,
  comparable price.
  - o No

#### Other adjustments:

Describe any other adjustments made in the analysis. For example, consumption may be deflated to compensate for elevated spending during a holiday.

No other adjustments were used

#### **Currency Conversions using CPI and PPP**

- Document the 2005 PPP and consumer price index (CPI) used to adjust for inflation.
  - o The 2005 PPP used was 1615.30
  - Used the June, 2015 CPI (2005=100) equal to 174.7
- World Bank CPI values are now normalized such that 2010=100. In order to achieve consistency with baseline, normalize all CPI values such that 2005=100.

○ The CPI was normalized to 2005=100

## **Poverty Thresholds**

- USAID Missions and other partners may request alternative poverty thresholds. In addition to the international extreme threshold of \$1.25 per capita per day in 2005 PPP, information regarding alternative thresholds may be incorporated into sections 4.2.2 and 4.2.3.
  - No other thresholds were used.
- Provide the threshold and the method of estimation for establishing the threshold. If the threshold is established using an alternative data source, such as a prior LSMS using the cost of basic needs approach, remember that the threshold will need to be inflated to current prices.

#### Weights

Describe the weights used for all indicator calculations. If multiple weights are applied, describe each weight separately and discuss how it is applied in the indicator calculations.

Social Impact used household sampling weights. These weights were calculated in two stages. The first stage included the number of households per province divided by the interaction of the number of villages selected in each Province with the number of households in each village. The second stage was the number of households in each village divided by the number of surveyed household from that village. The final step was multiplying the first stage with the second stage.

For indicators using DHS data, SI used the already built-in sampling weights. SI is unsure of the exact methodology used for creating these sampling weights.

# A1.3 Criteria for Achieving Adequacy for Women's Empowerment in Agriculture Indicators

The below table 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 decision-making 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/equip; Farm equipment (non-mechanized); F arm equip (mechanized); Nonfarm 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
The U.S. Coverances (C.C.	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]? Ag 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

Dimension	Indicator name	Survey questions	Aggregation of adequacy criteria	Inadequacy criteria	
A Car U.S. Government's C	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

Dimension	Indicator name	Survey questions	Aggregation of adequacy criteria	Inadequacy criteria
The U.S. Government visit	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)

# **Appendix 2. Survey Instrument and Survey Annexes**



## **M&E GUIDANCE SERIES**

# VOLUME 11 ANNEX: FEED THE FUTURE ZONE OF INFLUENCE INTERIM POPULATION-BASED SURVEY INSTRUMENT OCTOBER 2015

This Annex contains the core instrument for the interim population-based surveys in the Zones of Influence of Feed the Future focus countries. It should be used as the basis for each country-specific instrument then adapted to the country context. County-level adaptation will involve several steps:

- 1. If the country has conducted a Living Standards Measurement or similar study, the consumption expenditure module from the country's survey instrument should be substituted for Module E in the core instrument, to ensure comparability between Feed the Future and country estimates of poverty and daily per capita expenditures. Missions should work closely with national statistic offices to ensure data processing and indicator calculation also follows country protocols.
- 2. If the mission has decided to collect the full WEAI in the interim survey, Module G5: Motivation for Decision Making from the baseline survey instrument should be added to Module G.
- 3. If the mission has decided to collect data on the new nutrition-sensitive value chain indicators, the food groups in Module H and I should be disaggregated as appropriate to capture information about the targeted nutrient-rich value chain commodities.
- 4. If the mission has decided to collect information not captured by Feed the Future population-based indicator data collection, additional module(s) to capture Mission-specific information should be included.
- 5. The yellow highlights and Instructions in **comment boxes** in the core instrument in this Annex indicate places where the instrument design should be adapted or item wording or response codes should be reviewed to ensure they reflect appropriate wording/responses in the specific country context. The survey implementer should review all highlights and comments to ensure the instrument is appropriately and correctly contextualized.

The core instrument contains the following modules:	Page
MODULE A. HOUSEHOLD IDENTIFICATION COVER SHEET	94
MODULE B(1). INFORMED CONSENT	96
MODULE B(2). INFORMED CONSENT AND CONTACT INFORMATION TO LEAVE WITH THE HOUSEHOLD	98
MODULE C. HOUSEHOLD ROSTER AND DEMOGRAPHICS	99
MODULE D. DWELLING CHARACTERISTICS	102
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ANNEX 6. INFORMED CONSENT FORM FOR RESPONDENTS ANSWERING MODULE H (WOMEN 15-49) WHO WERE NOT CONSENTED FOR PRIOR MODULES	173
ANNEX 7. INFORMED CONSENT FORM FOR PARENTS OR PRIMARY CAREGIVERS OF CHILDREN ELIGIBLE FOR MODULE I (CHILDREN 0-36 MONTHS)	
ANNEX 8. INFORMED CONSENT REGISTER	

## MODULE A. HOUSEHOLD IDENTIFICATION COVER SHEET

HOUSEHOLD IDENTIFICATION	CODE			A09. INTERVIE	WER VISITS		
			1	2	3	FINAL VISIT	
A01. HOUSEHOLD IDENTIFICATION		DATE				DAY	
						MONTH YEAR	
A03. VILLAGE		INTERVIEWER'S NAME				INT. NUMBER	
A04. COMMUNE/SANGKAT		RESULT*				RESULT	
		NEXT VISIT DATE					
A05. DISTRICT/CITY/KHAN		TIME				TOTAL NUMBER OF VISITS	
		TIME TO INTERVIEW					
A06.PROVINCE		*RESULT CODES:  1 COMPLETED		THOME OF HO	HOEHOLD	A10. TOTAL PERSONS IN HOUSEHOLD	
A07. GPS COORDINATES OF N ° ′ HOUSEHOLD E ° ′	" "	MEMBER TOO	ILL TO RESPO EHOLD ABSEN	T HOME OR HO OND/ COGNITIVE NT FOR EXTEND	LY IMPAIRED	A11. TOTAL NUMBER OF WOMEN 15-49 A12. TOTAL NUMBER	
A08. HOUSEHOLD PHONE NUMBER:		7 ADDRESS NOT A DWELLING 8 DWELLING DESTROYED			OF CHILDREN AGE 0-3		
NOTE:		9 DWELLING NO 10 OTHER		SPECIFY)		A13. LINE NO. OF RESPONDENT	
THE <b>PRIMARY MALE AND PRIMARY FEMALE DECISIONMAKERS</b> ARE THOSE WHO ARE AGE		11 PARTIALLY CC	,			TO MODULE C	
18 OR OLDER, AND WHO <u>SELF-IDENTIFY</u> AS THE PRIMARY MARKING, BOTH WITHIN THE HOUSEHOLD.		A14. SENIOR SUPER	VISOR	A15. QC IN	ITERVIEWER	A16. INTERVIEWE	ER CODE
IN HOUSEHOLDS WITH BOTH MALE AND FEMALE DECISIONM	AKERS, THE PRIMARY MALE	NAME	N	NAME		$\prod$ ———	

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.	A17.LANGUAGE OF QUESTIONNAIRE** A19. NATIVE LANGUAGE OF RESPONDENT**
	A18. LANGUAGE OF INTERVIEW**  A20. WAS A TRANSLATOR USED? (YES=1, NO=2)
	** LANGUAGE CODES: 1 Khmer 2 CHINESE 3 Chaam 4 Vietnamese 5 Thai 6 Lao 7 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 18 YEAR 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 Social Impact and TNS Cambodia We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing 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 2-3 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 data base, 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 TNS Cambodia by calling [ 098 333 536/098 221 488]. 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 INTERVIEWED1  CONTINUE WITH HOUSEHOLD ROSTER:	RESPONDENT DOES NOT AGREE TO BE INTERVIEWED	D2 → END. "Thank you very much for your time."

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

## 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 Social Impact and TNS Cambodia We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing 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 2-3 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 data base, 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 TNS Cambodia by calling [098 333 536/098 221]488This 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: TNS Cambodia

NAME OF SURVEY DIRECTOR: Umakant Singh

PHONE NUMBER:

098 333 536/098 221 488

MAILING ADDRESS: 3rd Floor SSN building, 66 Norodom Blvd, Phnom Penh

Cambodia

EMAIL ADDRESS: Singh.Umakant@tnsglobal.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 pr	imary ma	ale dec	isio	nmak	er ir	this hous	sehold?	This pe	ersor	n should l	oe 18 yea	ars old o	r older.			
	YES, PRIMARY MALE DECISIONMAKER EXISTS IN HOUSEHOLD																
	F 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 HOUSEHOLD1 NO PRIMARY FEMALE DECISIONMAKER IN HOUSEHOLD2 F 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															
	IF THERE IS A PRIMARY FEMALE DECIS RELATIONSHIP (CO3) OF THE FEMALE D																RTHE
	Now, please tell me the names of all of the other people who usually live here.  [NAME's] relation-																
	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.		ship to primate male decision maker	the ry e on- r?													
	IF THERE IS NO PRIMARY MALE OR FEMALE DECISIONMAKER IN THE HOUSEHOLD, START THE HOUSEHOLD LISTING ON LINE 03.		IF NO PRIMA MALE DECISI -MAKE	RY E ON													
	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.		What [NAME relation ship to primal femal	i's] n- the ry											What is	į	
=	Any other people like small children or infants that we have not listed?		decisio makei	n-											highest grade o	f	
Λ Α Β	Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here?		SEE CODE BELO	S	Wha [NAN age	1E's] e?	Did [NAME] stay here last night?				CIRCLE	CIRCLE	Has [NAME] ever attended school?	Is [NAME] currently attending school?	educatio complete by [NAME]	ed [ re	Can NAME] ead and write?
2	IF YES, COMPLETE LISTING FOR QUESTIONS C02-C03. THEN, ASK	What is [NAME's] sex?	IF NO ADUL DECISI	Τ.	YEA		YES=1 NO=2	How lon since [ spent th	ŇAME] ľ	nas	LINE NUMBER OF ALL	LINE NUMBER OF ALL	YES=1 NO=2	YES=1 NO=2	SEE CODES BELOW		SEE CODES BELOW
	QUESTIONS STARTING WITH C04 FOR EACH PERSON ONE AT A TIME.	M = 1 F = 2	-MAKE ENTE CODE	R: R	OLD ENT '9	ER, ER	If Yes skip to C07		sehold?		WOMEN AGE 15-49	CHILD- REN AGE 0-3		IF AGE 3	OR OLDE	R	
	C01	C02	C03	3	CO	)4	C05		C06		C07	C08	C09	C10	C11		C12
1		1	0	1			1→C07 2	1 2 3			01	01	1 2 <b>→</b> C12	1 2			
2		2					1→C07 2	1 2 3			02	02	1 2 <b>→</b> C12	1 2			
3		1 2					1→C07 2	1 2 3			03	03	1 2→C12	1 2			
4		1 2					1→C07 2	1 2 3			04	04	1 2→C12	1 2			
5		1 2					1→C07 2	1 2 3			05	05	1 2→C12	1 2			
6		1 2					1→C07 2	1 2 3			06		1 2→C12	1 2			
	RESULT CODES: RELATIONSHIP TO PRI ALE, IF NO MALE) DECISIONMAKER:	MARY MA	ALE (OR	2			LT CODES: NT THE NI				CODES: E			C12 RESU		:S:	

SELF	6) LOWER SECONDARY (G7-9)	CAN SIGN (WRITE) ONLY2 CAN READ ONLY3
------	---------------------------	---------------------------------------

				Н	louse	hold ident	ification		e, each mod natched with						
	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.		What is [NAME's] relation- ship to the primary male decision- maker?  IF NO PRIMARY MALE DECISION- MAKER:												
LINE NUMBER	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	What is [NAME's] sex? M = 1	What is [NAME's] relation-ship to the primary female decision-maker?  SEE CODES BELOW  IF NO ADULT DECISION-MAKER: ENTER	Wha [NAM age IN YEA IF 95 OLD ENT	IE's] e? IRS FOR ER,	Did [NAME] stay here last night? YES=1 NO=2 If Yes skip to	been sin has sper in this h	ong has it ce [NAME] nt the night ousehold? CODES	NUMBER OF ALL WOMEN AGE	CIRCLE LINE NUMBER OF ALL CHILD- REN AGE	Has [NAME] ever attended school?  YES=1 NO=2	Is [NAME] currently attending school? YES=1 NO=2	Whath high grad educa comp by [NAM SE COE BEL	e lest e of ation leted y ME]?	Can [NAME] read and write? SEE CODES BELOW
	TIME. C01	F = 2	CODE 16	'9t		C07		CO6	15-49 <b>C07</b>	0-3 <b>C08</b>	C09	C10	OR OL C1		C12
07	301	1 2			, ,	1→C07	1 2 3		07	07	1	1 2	- 01	•	
08		1 2				2 1→C07 2	1 2 3		08	08	2→C12 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	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			
13		1 2				1→C07 2	1 2 3		13	13	1 2→C12	1 2			
14		1 2				1→C07 2	1 2 3		14	14	1 2→C12	1 2			

15		1 2		1→C07 2	1 2 3		15	15	1 2→C12	1 2			
SELF SPOI SONA SONA GRAI GR MOT BRO NEPI	RESULT CODES: RELATIONSHIP TO PRILE, IF NO MALE) DECISIONMAKER:	SISTER-IN ATHER-IN- LATIVE MAID ONMAKER	 SINC CIRC OF D CIRC # OF CIRC ENTE	RESULT CODES E HOME  LE 1 IF DAYS; E LAYS IN BOX (1-6 LE 2 IF WEEKS; WEEKS IN BOX LE 3 IF MONTHS ER # OF MONTH MEMBER HAS E Y	NTER # 6) ENTER (1-5) 6; S IN	NO FORM. PRIMARY LOWER SI UPPER SE UNIVERSI POST GRA TECHNICA ADULT LIT FORMA RELIGIOU FORMA KINDERGA	AL SCHOOL SCHOOL(K' ECONDARY ECONDARY TY (UNDERI ADUATE AL OR VOCA ERACY ON L EDUCATIO S ONLY (NO L EDUCATIO ATHEN	(NC	01 02 03 04 )05 06 07 08 09	C12 RES LITERAC CANNOT CAN SIG CAN REA	CY READ & N (WRIT AD ONLY	WRI E) ON	TE1 NLY2

# 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) ROOF TOP MATERIAL (OUTER COVERING):	D01:TYPE OF ROOF  NATURAL ROOFING  NO ROOF  NO ROOF  MIXED BUT PREDOMINANTLY MADE OF THACH/LEAVES/GRASS OR SALVAGES MATERIAL RUDIMENTARY ROOFING PLASTIC SHEET  PALM/BAMBOO  22  WOOD PLANKS  23  FINISHED ROOFING FINISHED ROOFING FINISHED ROOFING FINISHED ROOFING FINISHED ROOFING GALVALIZED IRON OR ALUMINIUM33 MIXED BUT PREDOMINANTLY GALVALIZED IRON OR ALUMINIUM 34  CONCRETE  35  OTHER  96  SALVAGED MATERIALS  24
D02.	OBSERVE (DO NOT ASK) FLOOR MATERIAL:	D02:TYPE OF FLOOR           NATURAL FLOOR         FINISHED FLOOR           EARTH/SAND/CLAY         11         PARQUET/POLISHED WOOD         31           DUNG         12         VINYL OR ASPHALT STRIPS         32           RUDIMENTARY FLOOR         CERAMIC TILES         33           WOOD PLANKS         21         CEMENT/BRICK/STONE         34           BAMBOO STRIPS         22         CARPET         35           OTHER         96
D03.	OBSERVE (DO NOT ASK) EXTERIOR WALLS:	D03:TYPE OF WALLS           NATURAL WALLS         FINISHED WALLS           NO WALLS

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
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?	NUMBER OF HOUSEHOLDS WITH WHOM TOILET IS SHARED  NUMBER OF HOUSEHOLDS (IF LESS THAN 10)
D08.	What is the main source of drinking water for your household?	D08: MAIN DRINKING WATER SOURCE           PIPED WATER         11         RAINWATER

	Emerged States States Security Introduce	WATER FROM SPRING OTHER96 PROTECTED SPRING41 UNPROTECTED SPRING42
D09.	Does this household have electricity?	D09: ELECTRICITY           YES
D10.	What is the main source of cooking fuel for your household?	D10: COOKING FUEL           ELECTRICITY

MODULE F.	HOUSEHOLD	CONSUMPTION	<b>EXPENDITURE</b>
	IIOOOEIIOED		

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 WEEK. 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 week. I'd also like to ask you about items that you or members of your household may have bought in the past week. 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

										CHECK			CHECK
										E1.06A.			E1.07A.
							How much did						
							you spend on			IF E1.06A IS			IF E1.07A IS
							what was eaten			> 0, ASK:			> 0, ASK:
							last week?			"Please tell			"Please tell me
										me how much			how much it
							If your family			it would have			would have
							ate part but not			cost to buy			cost to buy that
							all of something			that much			much [FOOD
							you purchased,	l		[FOOD ITEM]			ITEM] if you
		Over the past one week			l		estimate what	How much of what		if you had to	l		had to
	17514	did you or others in your	How much			of what you	you spent only	ate came from		purchase it in		of what you	purchase it in
500D ITTI	ITEM	household eat any	your house		ate can		on the part that	household's o		the market		from gifts or	the market
FOOD ITEM	CODE	[FOOD ITEM]?	the past	t week?	purch	ases?	was consumed.	production?		today."	other s	ources?	today."
E4 04		F4 00	E1.03A	E1.03B	E1.04A	E1.04B	E1.05	E1.06A	E1.0		E1.07A	E1.07B	E1.07C
E1.01		E1.02	QUANTITY	UNIT	QUANTITY	UNIT	LOCAL\$	QUANTITY	6B UNIT	ESTIMATE LOCAL\$	QUANTITY	UNIT	ESTIMATE LOCAL\$
Cereals, Grains and Cereal									ONIT	LOCAL			LOCAL
Products	01-20												
Corn	01	YES1											
33	31	NO2→ NEXT ITEM											
Rice	02	YES 1											
	\\ \frac{\sqrt{2}}{2}	NO2→ NEXT ITEM											
Wheat flour	10	YES 1										_	

										CHECK			CHECK
							How much did			E1.06A.			E1.07A.
							you spend on			IF E1.06A IS			IF E1.07A IS
							what was eaten			> 0, ASK:			> 0, ASK:
							last week?			"Please tell			"Please tell me
										me how much			how much it
							If your family			it would have			would have
							ate part but not			cost to buy			cost to buy that
							all of something			that much			much [FOOD
		Over the past one week					you purchased, estimate what	How much of wh	ot vou	[FOOD ITEM] if you had to			ITEM] if you had to
		did you or others in your	How much	in total did	How much	of what you	you spent only	ate came from		purchase it in	How much	of what you	purchase it in
	ITEM	household eat any	your house		ate can		on the part that	household's o		the market		from gifts or	the market
FOOD ITEM	CODE	[FOOD ITEM]?	the past		purch		was consumed.	production?		today."		ources?	today."
1005112111	COBL	[FOOD TEM]						•	E1.0	E1.06C			E1.07C
E1.01		E1.02	E1.03A QUANTITY	E1.03B UNIT	E1.04A QUANTITY	E1.04B UNIT	E1.05 LOCAL\$	E1.06A QUANTITY	6B UNIT	ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	ESTIMATE LOCAL\$
		NO2→ NEXT ITEM											
Bread	11	YES1 NO2→ NEXT ITEM											
Buns, scones	12	YES1 NO2→ NEXT ITEM											
Biscuits	13	YES1 NO2→ NEXT ITEM											
Spaghetti, macaroni, pasta	14	YES1 NO2→ NEXT ITEM											
Breakfast cereal	15	YES1 NO2→ NEXT ITEM											
Infant feeding cereals	16	YES1 NO2→ NEXT ITEM											
Other cereals (specify)	L. 1 7-20	YES1 NO2→ NEXT ITEM											
Roots, Tuberb 21-35													
Cassava tubers	21	YES1 NO2→ NEXT ITEM											
Cassava flour	22	YES1 NO2→ NEXT ITEM											
White sweet potato	23	YES1 NO2→ NEXT ITEM											

		Over the past one week					How much did you spend on what was eaten last week?  If your family ate part but not all of something you purchased, estimate what	How much of wh	at you	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			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
FOOD ITEM	ITEM CODE	did you or others in your household eat any [FOOD ITEM]?	How much your house the pas	hold eat in	How much ate can	ne from	you spent only on the part that was consumed.	ate came from household's o	wn	purchase it in the market today."	ate came	of what you from gifts or ources?	purchase it in the market today."
E1.01		E1.02	E1.03A QUANTITY	E1.03B UNIT	E1.04A QUANTITY	E1.04B UNIT	E1.05 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Orange sweet potato	24	YES1 NO2→ NEXT ITEM											
Irish potato	25	YES1 NO2→ NEXT ITEM											
Potato crisps	26	YES1 NO2→ NEXT ITEM											
	27												
Cocoyam (masimbi)	28	YES1 NO2→ NEXT ITEM											
Lotus root	29	YES1 NO2→ NEXT ITEM											
Radish	30	YES1 NO2→ NEXT ITEM											
Packkouk	31	YES1 NO2→ NEXT ITEM											
Other roots, tubers, or plantains (specify)	<b>M</b> . 2 9-35	YES1 NO2→ NEXT ITEM											
Nuts and Pulses	36-50												
Bean, white	36	YES1 NO2→ NEXT ITEM											
Bean, brown	37	YES1 NO2→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the past	hold eat in	How much ate can purch	ne from	How much did you spend on what was eaten last week?  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 whate came from household's o	your wn	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."	ate came t	of what you from gifts or ources?	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	3352	E1.02	E1.03A QUANTITY	E1.03B UNIT	E1.04A QUANTITY	E1.04B UNIT	E1.05 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Pigeonpea (red bean)	38	YES1 NO2→ NEXT ITEM								·			·
Soyabean flour	41	YES1 NO2→ NEXT ITEM											
Cowpea (khobwe)	43	YES1 NO2→ NEXT ITEM											
Peanut / Groundnut	<b>N</b> . 4	YES1 NO2→ NEXT ITEM											
Cashewnut	<b>O</b> . 4	YES1 NO2→ NEXT ITEM											
Green Bean	<b>P</b> . 4	YES1 NO2→ NEXT ITEM											
Lockchhat	<b>Q</b> . 4	YES1 NO2→ NEXT ITEM											
Other nuts or pulses (specify)	<b>R</b> . 4 5-50	YES1 NO2→ NEXT ITEM											
Vegetables	51-70												
Onion, fresh or processed	51	YES1 NO2→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the pas	hold eat in	How much ate can	ne from	How much did you spend on what was eaten last week?  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 whate came from household's o	your wn	CHECK 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."	ate came	of what you from gifts or ources?	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 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Cabbage, fresh or processed	52	YES1 NO2→ NEXT ITEM											
Chinese cabbage, fresh or processed	55	YES1 NO2→ NEXT ITEM											
Other cultivated green leafy vegetables, fresh or processed	56	YES1 NO2→ NEXT ITEM											
Gathered wild green leaves	57	YES1 NO2→ NEXT ITEM											
Tomato, fresh or processed	58	YES1 NO2→ NEXT ITEM											
Cucumber, fresh or processed	59	YES1 NO2→ NEXT ITEM											
Pumpkin, fresh or processed	60	YES1 NO2→ NEXT ITEM											
Okra / Therere, fresh or processed	61	YES1 NO2→ NEXT ITEM											
Mushroom, fresh or processed	62	YES1 NO2→ NEXT ITEM											
Carrot	<b>S</b> . 6	YES 1 NO2→ NEXT ITEM											

							How much did you spend on what was eaten last week?  If your family ate part but not all of something			CHECK E1.06A. IF E1.06A IS > 0, ASK: "Please tell me how much it would have cost to buy that much			CHECK E1.07A.  IF E1.07A IS > 0, ASK: "Please tell me how much it would have cost to buy that much [FOOD
FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the pas	hold eat in	How much ate can purch		you purchased, estimate what you spent only on the part that was consumed.	How much of whate came from household's o	your wn	[FOOD ITEM] if you had to purchase it in the market today."	ate came	of what you from gifts or ources?	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 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Morning glory	<b>T</b> . 6	YES1 NO2→ NEXT ITEM											
Morning Lily	<b>U</b> . 6	YES1 NO2→ NEXT ITEM											
Egg plant	<b>V</b> . 6	YES1 NO2→ NEXT ITEM											
Bamboo shoot	<b>W</b> . 6	YES1 NO2→ NEXT ITEM											
Bell pepper	<b>X</b> . 6	YES1 NO2→ NEXT ITEM											
Other vegetables, fresh or processed (specify)	<b>Y</b> . 6 3-70	YES1 NO2→ NEXT ITEM											
Meat, Fish and Animal products	71-90												
Eggs	71	YES1 NO2→ NEXT ITEM											
Dried fish	72	YES1 NO2→ NEXT ITEM											

										CHECK E1.06A.			CHECK E1.07A.
	ITEM	Over the past one week did you or others in your household eat any	How much your house		How much		How much did you spend on what was eaten last week?  If your family ate part but not all of something you purchased, estimate what you spent only on the part that	How much of wh ate came from household's o	your	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		of what you from gifts or	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
FOOD ITEM	CODE	[FOOD ITEM]?	the past		purch	ases?	was consumed.	production?	E1.0	today." E1.06C		ources?	today." E1.07C
E1.01		E1.02	E1.03A QUANTITY	E1.03B UNIT	E1.04A QUANTITY	E1.04B UNIT	E1.05 LOCAL\$	E1.06A QUANTITY	6B UNIT	ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	ESTIMATE LOCAL\$
Fresh fish	73	YES1 NO2→ NEXT ITEM											
Beef	74	YES1 NO2→ NEXT ITEM											
Goat	75	YES1 NO2→ NEXT ITEM											
Pork	76	YES1 NO2→ NEXT ITEM											
Mutton	77	YES1 NO2→ NEXT ITEM											
Chicken	78	YES1 NO2→ NEXT ITEM											
Other poultry – guinea fowl, doves, etc.	79	YES1 NO2→ NEXT ITEM											
Small animal – rabbit, mice, etc.	80	YES1 NO2→ NEXT ITEM											
Termites, other insects, for example Ngumbi (caterpillar)	81	YES1 NO2→ NEXT ITEM											
Tinned meat or fish	82	YES1 NO2→ NEXT ITEM											
Smoked fish	83	YES1 NO2→ NEXT ITEM											
Fish Soup/Sauce	84	YES1 NO2→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the past	hold eat in	How much ate can purch	ne from	How much did you spend on what was eaten last week?  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 wh ate came from household's o production?	your wn	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."	ate came	of what you from gifts or ources?	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 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Other meat (specify)	<b>Z</b> . 8 5-90	YES1 NO2→ NEXT ITEM								·			
Fruits	91-110												
Mango	91	YES1 NO2→ NEXT ITEM											
Banana	92	YES1 NO2→ NEXT ITEM											
Citrus –orange	93	YES1 NO2→ NEXT ITEM											
Pineapple	94	YES1 NO2→ NEXT ITEM											
Papaya	95	YES1 NO2→ NEXT ITEM											
Guava	96	YES1 NO2→ NEXT ITEM											
Avocado	97	YES1 NO2→ NEXT ITEM											
Apple	99	YES1 NO2→ NEXT ITEM											
Strawberry	100	YES1 NO2→ NEXT ITEM											
Pring (Khmer name)	101	YES1 NO2→ NEXT ITEM											

							How much did you spend on			CHECK E1.06A. IF E1.06A IS			CHECK E1.07A. IF E1.07A IS
FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the past	hold eat in week?	How much ate can purch	ne from ases?	what was eaten last week?  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 wh ate came from household's o production?	your wn	> 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."  E1.06C	ate came to	of what you from gifts or ources?	> 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 LOCAL\$	E1.06A QUANTITY	6B UNIT	ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	ESTIMATE LOCAL\$
Mango Sting	102	YES1 NO2→ NEXT ITEM											
RamBotam	103	YES1 NO2→ NEXT ITEM											
Longen	104	YES 1 NO2→ NEXT ITEM											
Durian	105	YES1 NO2→ NEXT ITEM											
Jack Fruit	106	YES1 NO2→ NEXT ITEM											
Water Melon	107	YES1 NO2→ NEXT ITEM											
Kroch Khlong (Khmer)	108	YES1 NO2→ NEXT ITEM											
Dragon Fruit	109	YES1 NO2→ NEXT ITEM											
Star fruit	110	YES1 NO2→ NEXT ITEM											
wild fruit	98	YES1 NO2→ NEXT ITEM											
Other fruits (specify)	100- 110	YES1 NO2→ NEXT ITEM											
Milk and Milk Products	111- 125												

										CHECK E1.06A.			CHECK E1.07A.
							How much did you spend on what was eaten last week?			IF E1.06A IS > 0, ASK: "Please tell			IF E1.07A IS > 0, ASK: "Please tell me
		Over the past one week did you or others in your	How much	in total did	How much	of what you	If your family ate part but not all of something you purchased, estimate what you spent only	How much of whate came from		me how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in	How much	of what you	how much it would have cost to buy that much [FOOD ITEM] if you had to purchase it in
FOOD ITEM	ITEM CODE	household eat any [FOOD ITEM]?	your house	hold eat in	ate can	ne from	on the part that was consumed.	household's o	wn	the market today."	ate came t	rom gifts or ources?	the market today."
E1.01		E1.02	E1.03A QUANTITY	E1.03B UNIT	E1.04A QUANTITY	E1.04B UNIT	E1.05 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Fresh milk	111	YES1 NO2→ NEXT ITEM											
Powdered milk	112	YES1 NO2→ NEXT ITEM											
Butter	114	YES1 NO2→ NEXT ITEM											
Chambiko – soured milk	115	YES1 NO2→ NEXT ITEM											
Yoghurt	116	YES1 NO2→ NEXT ITEM											
Cheese	117	YES1 NO2→ NEXT ITEM											
Infant feeding formula (for bottle)	118	YES1 NO2→ NEXT ITEM											
Condensed milk	119	YES1 NO2→ NEXT ITEM											
Other milk (specify)	119-125	YES1 NO2→ NEXT ITEM											
Sugar, Fats, and Oil	126- 135												
Sugar	126	YES1 NO2→ NEXT ITEM											
Sugar Cane	127	YES1 NO2→ NEXT ITEM											

										CHECK			CHECK
	ITEM	Over the past one week did you or others in your household eat any	How much your house		How much ate car	of what you	How much did you spend on what was eaten last week?  If your family ate part but not all of something you purchased, estimate what you spent only on the part that	How much of wh ate came from household's o	your	FECK 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		of what you from gifts or	F1.07A 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
FOOD ITEM	CODE	[FOOD ITEM]?	the pas		purch		was consumed.	production?		today."		ources?	today."
E1.01		E1.02	E1.03A QUANTITY	E1.03B UNIT	E1.04A QUANTITY	E1.04B UNIT	E1.05 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Cooking oil	128	YES1 NO2→ NEXT ITEM											
Palm sugar	129	YES1 NO2→ NEXT ITEM											
Pig fat oil	130	YES1 NO2→ NEXT ITEM											
Other sugars, fats, or oils (specify)	129-135	YES1 NO2→ NEXT ITEM											
Beverages	136-155												
Tea	136	YES1 NO2→ NEXT ITEM											
Coffee	137	YES1 NO2→ NEXT ITEM											
Cocoa, Milo	138	YES1 NO2→ NEXT ITEM											
	139												
Fruit juice	140	YES1 NO2→ NEXT ITEM											
Freezes (flavoured ice)	141	YES1 NO2→ NEXT ITEM											
Soft drinks (Coca-cola, Fanta, Sprite, etc.)	142	YES1 NO2→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the pasi	hold eat in	How much ate can purch.	ne from	How much did you spend on what was eaten last week?  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 whate came from household's o	your wn	CHECK 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."	ate came	of what you from gifts or ources?	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	OODL	E1.02	E1.03A QUANTITY	E1.03B UNIT	E1.04A QUANTITY	E1.04B UNIT	E1.05 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Rice wine	143	YES1 NO2→ NEXT ITEM											
Bottled water	144	YES1 NO2→ NEXT ITEM											
Bottled / canned beer (ABC/ Angkor beer etc.)	146	YES1 NO2→ NEXT ITEM											
Wine or commercial liquor	149	YES1 NO2→ NEXT ITEM											
Other beverages (specify)	151-155	YES1 NO2→ NEXT ITEM											
Spices & Miscellaneous	156-170												
Salt	156	YES1 NO2→ NEXT ITEM											
Spices	157	YES1 NO2→ NEXT ITEM											
Yeast, baking powder	158	YES1 NO2→ NEXT ITEM											
Tomato sauce (bottle)	159	YES1 NO2→ NEXT ITEM											
Hot sauce (	160	YES1 NO2→ NEXT ITEM											
Jam, jelly	161	YES 1											

FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the pas	hold eat in	ate can	of what you ne from ases?	How much did you spend on what was eaten last week?  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 wh ate came from household's o production?	your wn	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."	ate came	of what you from gifts or ources?	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 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
		NO2→ NEXT ITEM											
Sweets, candy, chocolates	162	YES1 NO2→ NEXT ITEM											
Honey	163	YES1 NO2→ NEXT ITEM											
MSG	164	YES1 NO2→ NEXT ITEM											
Fresh Mix spices	165	YES1 NO2→ NEXT ITEM											
Other spices, condiments, etc. (specify)	164-170	YES1 NO2→ NEXT ITEM											
Cooked Foods from Vendors	171-190												
Maize - boiled or roasted (vendor)	171	YES1 NO2→ NEXT ITEM											
Chips (vendor)	172	YES1 NO2→ NEXT ITEM											
Cassava - boiled (vendor)	173	YES1 NO2→ NEXT ITEM					_						
Eggs - boiled (vendor)	174	YES1 NO2→ NEXT ITEM											
Chicken (vendor)	175	YES1 NO2→ NEXT ITEM											

FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the pas	hold eat in	How much ate can	ne from	How much did you spend on what was eaten last week?  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 wh ate came from household's o production?	your wn	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."	ate came t	of what you rom gifts or ources?	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 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
Meat (vendor)	176	YES1 NO2→ NEXT ITEM								20012			200124
Fish (vendor)	177	YES1 NO2→ NEXT ITEM											
Fried banana	181	YES1 NO2→ NEXT ITEM											
Boiled Baby egg	182	YES1 NO2→ NEXT ITEM											
Cambodian Noodles	183	YES 1 NO2→ NEXT ITEM											
Chinese Noodles	184	YES1 NO2→ NEXT ITEM											
Roasted pig	185	YES1 NO2→ NEXT ITEM											
Roasted cow	186	YES1 NO2→ NEXT ITEM											
Roasted duck	187	YES1 NO2→ NEXT ITEM											
Meal eaten at restaurant	180	YES1 NO2→ NEXT ITEM											
Other cooked foods from vendors (specify)	181-190	YES1 NO 2→ SKIP TO E1.0											

	50 KG. B. 90 KG. B. PAIL (SM PAIL (LAI	AMME 01 AG 02 AG 03 IALL) 04 RGE) 05 g 06	BUNCH PIECE HEAP BALE		08 10 11	OX-C LITR CUP TIN	KET ( <i>DENGU</i> ) (UNS ART (UNSHELLED E	))14 15 16 17	<b>.</b>	MILLILITRE TEASPOON BASINSACHET/TUBE TOTAL KondabOTHER (SPECIF		20 21 22 23	
		ISE CATEGORIES FOR .04b/1.06b/1.07b – UNITS											
E1.01		E1.02	E1.03A QUANTITY	E1.03B UNIT	E1.04A QUANTITY	E1.04B UNIT	E1.05 LOCAL\$	E1.06A QUANTITY	E1.0 6B UNIT	E1.06C ESTIMATE LOCAL\$	E1.07A QUANTITY	E1.07B UNIT	E1.07C ESTIMATE LOCAL\$
FOOD ITEM	ITEM CODE	Over the past one week did you or others in your household eat any [FOOD ITEM]?	How much your house the past	hold eat in	How much o ate cam purcha	ne from '	How much did you spend on what was eaten last week?  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 wh ate came from household's o production?	your wn	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."	ate came f	of what you from gifts or ources?	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."

QNO.	QUESTION	RESPONSE CATEGORIES
E1.08	Over the past one week, did any people who are not members of your household eat any meals in your household?	YES1 NO2→ SKIP TO E1.12
E1.09	Over the past one week, how many people who are not members of your household ate meals in your household?	E1.09. NUMBER OF PEOPLE
E1.10	Over the past one week, 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
E1.11	Over the past one week, what was the total number of meals that were shared with people who are not members of your household?	E1.11. NUMBER OF MEALS
E1.12	Over the past one week, did your household purchase pet food for family pets like a cat or a dog?	YES1 NO2→ GO TO E1.14
E1.13	How much did you spend on pet food last week?	ENTER AMOUNT IN LOCAL\$:
E1.14	Over the past one week, were there any other expenditures on pets?	YES1 NO2→ GO TO MODULE E2
E1.15	How much did you spend on other purchases for pets last week?	ENTER AMOUNT IN LOCAL\$:

## **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	JT514 0005	Over the past one week, did your household purchase or pay for	
ITEM	ITEM CODE	any [ITEM]?	How much did you pay (how much did they cost) in total?  E2.03
E2.01	191-210	E2.02	Local\$
Charcoal	191	YES1 NO2→ NEXT ITEM	
Kerosene	192	YES1 NO2→ NEXT ITEM	
Cigarettes or other tobacco	193	YES1 NO2→ NEXT ITEM	
Candles	194	YES1 NO2→ NEXT ITEM	
Matches	195	YES1 NO2→ NEXT ITEM	
Newspapers or magazines	196	YES1 NO2→ NEXT ITEM	
Moto taxi	200	YES1 NO2→ NEXT ITEM	
Public transport - Bicycle Taxi (include any used for school under education costs; include any used for obtaining health care under health expenditures)	197	YES1 NO2→ NEXT ITEM	
Public transport - Bus/Minibus (include any used for school under education costs; include any used for obtaining health care under health expenditures)	198	YES1 NO2→ 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)	199	YES1 NO2→ NEXT ITEM	
Entertainment	201	YES1 NO2→ NEXT ITEM	
Medicine	205	YES1 NO2→ NEXT ITEM	
Other (specify)	200-210	YES1 NO2→ NEXT ITEM	

## MODULE E3. NON-FOOD EXPENDITURES OVER PAST ONE 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		Over the past one month, did your household purchase or pay for	
ITEM	ITEM CODE	any [ITEM]?	How much did you pay (how much did they cost) in total?
E3.01	211-240	E3.02	E3.03 Local\$
Milling fees for grains (not including cost of grain itself), grain	211	YES1 NO2→ NEXT ITEM	
Bar soap (body soap )	212	YES1 NO2→ NEXT ITEM	
Clothes soap (powder, paste)	213	YES1 NO2→ NEXT ITEM	
Toothpaste, toothbrush	214	YES1 NO2→ NEXT ITEM	
Toilet paper	215	YES1 NO2→ NEXT ITEM	
Glycerine, Vaseline, skin creams	216	YES1 NO2→ NEXT ITEM	
Other personal products (shampoo, razor blades, cosmetics, hair products, etc.)	217	YES1 NO2→ NEXT ITEM	
Light bulbs	218	YES1 NO2→ NEXT ITEM	
Postage stamps or other postal fees	219	YES1 NO2→ NEXT ITEM	
Donation - to church, charity, beggar, etc.	220	YES1 NO2→ NEXT ITEM	
Petrol or diesel	221	YES1 NO2→ NEXT ITEM	
Motor vehicle service, repair, or parts	222	YES1 NO2→ NEXT ITEM	
Bicycle service, repair, or parts	223	YES1 NO2→ NEXT ITEM	
Wages paid to servants	224	YES1 NO2→ NEXT ITEM	

ONE MONTH RECALL  ITEM	ITEM CODE	Over the past <u>one month</u> , did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E3.01	211-240	E3.02	E3.03 Local\$
Repairs to household and personal items (radios, watches, etc., excluding battery purchases)	225	YES1 NO2→ NEXT ITEM	
Utilities: Natural gas	226	YES1 NO2→ NEXT ITEM	
Utilities: Electricity	227	YES1 NO2→ NEXT ITEM	
Utilities: Water	228	YES1 NO2→ NEXT ITEM	
Batteries	229	YES1 NO2→ NEXT ITEM	
Recharging of batteries, cell phones, etc.	230	YES1 NO2→ NEXT ITEM	
Air time for cell phones	231	YES1 NO2→ NEXT ITEM	
HEALTH EXPENDITURES (include estimated value of any in-kind payments, or borrowed amounts)			
Anything related to illnesses and injuries, including for medicine, tests, consultation, & in-patient fees	232	YES1 NO2→ NEXT ITEM	
Medical care not related to an illness - preventative health care, pre-natal visits, check-ups, etc.	233	YES1 NO2→ NEXT ITEM	
Non-prescription medicines, for example, Panadol, Fansidar, cough syrup, etc.	234	YES1 NO2→ NEXT ITEM	
Transportation used to access health-related services or care that did not require an overnight stay in a health facility or at a traditional healer's dwelling	235	YES1 NO2→ NEXT ITEM	
Other health expenditures: Specify	236-240	YES1 NO2→ MODULE E4	

## MODULE E4. NON-FOOD EXPENDITURES OVER PAST THREE MONTHS

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

THREE MONTH RECALL ITEM	ITEM CODE	Over the past three months, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E4.01	241-290	E4.02	E4.03 Local\$
Infant clothing	241	YES1 NO2→ NEXT ITEM	
Baby nappies/diapers	242	YES1 NO2→ NEXT ITEM	
Boy's trousers (FOR ALL CLOTHING, EXCLUDE UNIFORMS/SCHOOL CLOTHING)	243	YES1 NO2→ NEXT ITEM	
Boy's shirts	244	YES1 NO2→ NEXT ITEM	
Boy's jackets	245	YES1 NO2→ NEXT ITEM	
Boy's undergarments	246	YES1 NO2→ NEXT ITEM	
Boy's other clothing	247	YES1 NO2→ NEXT ITEM	
Men's trousers	248	YES1 NO2→ NEXT ITEM	
Men's shirts	249	YES1 NO2→ NEXT ITEM	
Men's jackets	250	YES1 NO2→ NEXT ITEM	
Men's undergarments	251	YES1 NO2→ NEXT ITEM	
Men's other clothing	252	YES1 NO2→ NEXT ITEM	
Girl's blouse/shirt	253	YES1 NO2→ NEXT ITEM	
Girl's dress/skirt	254	YES1 NO2→ NEXT ITEM	

THREE MONTH RECALL ITEM	ITEM CODE	Over the past three months, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E4.01	241-290	E4.02	E4.03 Local\$
Girl's undergarments	255	YES1 NO2→ NEXT ITEM	
Girl's other clothing	256	YES1 NO2→ NEXT ITEM	
Women's blouse/shirt	257	YES1 NO2→ NEXT ITEM	
Chitenje cloth	258	YES1 NO2→ NEXT ITEM	
Women's dress/skirt	259	YES1 NO2→ NEXT ITEM	
Women's undergarments	260	YES1 NO2→ NEXT ITEM	
Women's other clothing	261	YES1 NO2→ NEXT ITEM	
Boys shoes	262	YES1 NO2→ NEXT ITEM	
Men's shoes	263	YES1 NO2→ NEXT ITEM	
Girl's shoes	264	YES1 NO2→ NEXT ITEM	
Women's shoes	265	YES1 NO2→ NEXT ITEM	
Cloth, thread, other sewing material	266	YES1 NO2→ NEXT ITEM	
Laundry, dry cleaning, tailoring fees	267	YES1 NO2→ NEXT ITEM	
Bowls, glassware, plates, silverware, etc.	268	YES1 NO2→ NEXT ITEM	
Cooking utensils (cookpots, stirring spoons and whisks, etc.)	269	YES1 NO2→ NEXT ITEM	
Cleaning utensils (brooms, brushes, etc.)	270	YES1 NO2→ NEXT ITEM	

THREE MONTH RECALL ITEM	ITEM CODE	Over the past three months, did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E4.01	241-290	E4.02	E4.03 Local\$
Torch / flashlight	271	YES1 NO2→ NEXT ITEM	
Umbrella	272	YES1 NO2→ NEXT ITEM	
Lamp Kerosene	273	YES1 NO2→ NEXT ITEM	
Stationery items (excluding school related)	274	YES1 NO2→ NEXT ITEM	
Books (excluding school related)	275	YES1 NO2→ NEXT ITEM	
Music or video cassette or CD/DVD	276	YES1 NO2→ NEXT ITEM	
Tickets for sports / entertainment events	277	YES1 NO2→ NEXT ITEM	
House decorations	278	YES1 NO2→ NEXT ITEM	
Night's lodging in rest house or hotel (excluding school or health related)	279	YES1 NO2→ NEXT ITEM	
Other: Specify	280-290	YES1 NO2→ MODULE E5	

Note: Baby from 0 to 5 years Boy/girl from 6 to 15 years Men/women >15 years

## **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 one year."

ONE YEAR (12 MONTH) RECALL ITEM	ITEM CODE	Over the past one year (twelve months), did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E5.01	291-330	E5.02	E5.03 Local\$
Carpet, rugs, drapes, curtains	291	YES 1 NO2→ NEXT ITEM	
Linen - towels, sheets, blankets	292	YES 1 NO2→ NEXT ITEM	
Mat - sleeping or for drying maize flour	293	YES1 NO2→ NEXT ITEM	
Mosquito net	294	YES 1 NO2→ NEXT ITEM	
Mattress	295	YES 1 NO2→ NEXT ITEM	
Sports & hobby equipment, musical instruments, toys	296	YES 1 NO2→ NEXT ITEM	
Film, film processing, camera	297	YES 1 NO2→ NEXT ITEM	
Cement	298	YES 1 NO2→ NEXT ITEM	
Bricks	299	YES 1 NO2→ NEXT ITEM	
Construction timber	300	YES 1 NO2→ NEXT ITEM	
Council rates	301	YES 1 NO2→ NEXT ITEM	
Insurance - health / auto/ home/ life	302	YES 1 NO2→ NEXT ITEM	
Fines or legal fees	303	YES1 NO2→ NEXT ITEM	
Lobola (bridewealth) costs	304	YES1 NO2→ NEXT ITEM	
Marriage ceremony costs	305	YES 1 NO2→ NEXT ITEM	

ONE YEAR (12 MONTH) RECALL ITEM	ITEM CODE	Over the past one year (twelve months), did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E5.01	291-330	E5.02	E5.03 Local\$
Funeral costs, household members	306	YES 1 NO2→ NEXT ITEM	
Funeral costs, non-household members (relatives, neighbors/friends)	307	YES 1 NO2→ NEXT ITEM	
HEALTH EXPENDITURES over last 12 months (include estimated value of any in-kind payments or borrowed amounts)			
Hospitalizations or overnight stay in any hospital – total cost for treatment	308	YES 1 NO2→ NEXT ITEM 311	
Travel to and from the medical facility for any overnight stay(s) or hospitalization	309	YES 1 NO2→ NEXT ITEM	
Food costs during overnight stay(s) at the medical facility or hospitalization (if not already included above)	310	YES 1 NO2→ NEXT ITEM	
Over-night(s) stay at a traditional healer's or faith healer's dwelling – total costs for treatment	311	YES 1 NO2→ NEXT ITEM 314	
Travel costs to the traditional healer's or faith healer's dwelling for overnight stay(s)	312	YES 1 NO2→ NEXT ITEM	
Food costs during overnight stay(s) at the traditional healer's or faith healer's dwelling	313	YES 1 NO2→ NEXT ITEM	
EDUCATION EXPENDITURES over last 12 months (include estimated value of any in-kind payments or borrowed amounts)			
Tuition, including extra tuition fees	314	YES 1 NO2→ NEXT ITEM	
Expenditures on after school programs and tutoring	315	YES 1 NO2→ NEXT ITEM	
School books and stationery	316	YES 1 NO2→ NEXT ITEM	
School uniform	317	YES 1 NO2→ NEXT ITEM	
Boarding fees (building fee)	318	YES 1 NO2→ NEXT ITEM	
Contribution to school building maintenance	319	YES 1 NO2→ NEXT ITEM	

ONE YEAR (12 MONTH) RECALL ITEM	ITEM CODE	Over the past one year (twelve months), did your household purchase or pay for any [ITEM]?	How much did you pay (how much did they cost) in total?
E5.01	291-330	E5.02	E5.03 Local\$
Transport to and from school	320	YES 1 NO2→ NEXT ITEM	
Parent/Teacher Association and other related fees	321	YES 1 NO2→ NEXT ITEM	
Other: Specify	322	YES 1 NO2→ NEXT ITEM	

NON-FOOD ITEMS THAT MAY OR MAY NOT HAVE BEEN PURCHASED							
ONE YEAR (12 MONTH) RECALL  ITEM	Item Code	Over the past one 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	323-325	E5.05	E5.06a Quantity	E5.06b Unit	E5.06c FILTER	E5.07 (Local\$)	E5.08 (Local \$)
Woodpoles, bamboo	323	YES 1 NO2→ NEXT ITEM			GATHERED1 → E5.07 PURCHASED/PAID2→ E5.08	→ SKIP TO NEXT ITEM	
Grass for thatching roof or other use	324	YES 1 NO2→ NEXT ITEM			GATHERED1 → E5.07 PURCHASED/PAID2→ E5.08	→ SKIP TO NEXT ITEM	
Other: Specify	325	YES 1 NO2→ NEXT ITEM			GATHERED1 → E5.07 PURCHASED/PAID2→ E5.08	→ SKIP TO MODULE E6	



# **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				
E6.02	If you sold this dwelling today, how much would you receive for it?	DON'T KNOW/NON-RESPONSE/NA999998				
E6.03	How old is this house, in years?	DON'T KNOW/ NON-RESPONSE/NA998  SKIP TO E6.06				
E6.04	If you rented this dwelling out today, how much rent would you receive?	E6.04A LOCAL\$  DAY1 WEEK2 MONTH3 YEAR4  DON'T KNOW/NON-RESPONSE //NA99998 → SKIP TO E6.06  DON'T KNOW/ NON-RESPONSE //NA99998  SKIP TO E6.06				

E6.05	How much do you pay to rent this dwelling?	E6.05A LOCAL\$  DAY1 WEEK2 MONTH3 YEAR4  DON'T KNOW/NON-RESPONSE //NA99998 → SKIP TO E6.09  DON'T KNOW/ NON-RESPONSE //NA99998  SKIP TO E6.09				
E6.06	Do you pay a mortgage on this house, that is, a regular payment towards purchasing the house?	YES1 NO2→ SKIP TO E6.09 (MUST THE SAME E6.01)				
E6.07	How often do you make mortgage payments?	ONCE A MONTH				
E6.08	How much do you pay each time you make a payment on your mortgage?	AMOUNT IS VARIABLE99996  DON'T KNOW/ NON-RESPONSE99998				
E6.09	In the past one month, how much did you spend on repairs & maintenance to this house?	DON'T KNOW/ NON-RESPONSE99998				

## **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	341-370	E7.02	E7.03 NUMBER	E7.04 YEAR	E7.05 LOCAL\$	E7.06	E7.07 LOCAL\$
Bed//table/chair	341	YES1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Fan	342	YES1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Air conditioner	343	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Radio	344	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Tape or CD/DVD player/VCR	345	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Television	346	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Sewing machine	347	YES1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Kerosene stove	348	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Electric stove; hot plate	349	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Gas stove	350	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Refrigerator	351	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Washing machine	352	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Bicycle	353	YES1 NO2→ NEXT ITEM				YES1 NO2→ 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	341-370	E7.02	E7.03 NUMBER	E7.04 YEAR	E7.05 LOCAL\$	E7.06	E7.07 LOCAL\$
Boat	354	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Motorcycle/scooter	355	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Car	356	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Mini-bus	357	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Lorry	358	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Beer-brewing drum	359	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Upholstered chair, sofa set	360	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Coffee table (for sitting room)	361	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Cupboard, drawers, bureau	362	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Lantern kerosene	363	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Desk	364	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Clock	365	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Iron (for pressing clothes)	366	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Computer equipment & accessories	367	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Satellite dish(one TV, DTV)	368	YES1 NO2→ NEXT ITEM				YES1 NO2→ 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	341-370	E7.02	E7.03 NUMBER	E7.04 YEAR	E7.05 LOCAL\$	E7.06	E7.07 LOCAL\$
Solar panel	369	YES 1 NO2→ NEXT ITEM				YES1 NO2→ NEXT ITEM	
Generator	370	YES1 NO2→ MODULE F				YES1 NO2→ MODULE F	

## **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 1 month was there ever no food to eat of any kind in your house because of lack of resources to get food?	YES
F02	How often did this happen in the past 1 month?	RARELY (1-2 TIMES)
F03	In the past 1 month did you or any household member go to sleep at night hungry because there was not enough food?	YES
F04	How often did this happen in the past 1 month?	RARELY (1-2 TIMES)
F05	In the past 1 month did you or any household member go a whole day and night without eating anything at all because there was not enough food?	YES
F06	How often did this happen in the past 1 month?	RARELY (1-2 TIMES)

### MODULE G. WOMEN'S EMPOWERMENT IN AGRICULTURE INDEX

**Note:** the information in module G1 can be captured in different ways; however there must be a way to a) identify the proper individual within the household to be asked the survey, b) link this individual from the module to the household roster, c) code the outcome of the interview, especially if the individual is not available, to distinguish this from missing data, d) record who else in the household was present during the interview. This instrument must be adapted for country context including translations into local languages when appropriate.

**Enumerator:** This questionnaire should be administered separately to the primary and secondary respondents identified in the household roster (Section c) of the household level questionnaire. You should complete this coversheet for each individual identified in the "selection section" even if the individual is not available to be interviewed for reporting purposes.

Please double check to ensure:

- You have completed the roster section of the household questionnaire to identify the correct primary and/or secondary respondent(s);
- You have noted the household ID and individual ID correctly for the person you are about to interview;
- You have gained informed consent for the individual in the household questionnaire;
- You have sought to interview the individual in private or where other members of the household cannot overhear or contribute answers.
- Do not attempt to make responses between the primary male decisionmaker and the primary female decisionmaker the same—it is ok for them to be different.

### MODULE G1. INDIVIDUAL IDENTIFICATION

	Code		Code
G1.02. NAME OF RESPONDENT CURRENTLY BEING INTERVIEWED (ID CODE FROM ROSTER IN SECTION C HOUSEHOLD ROSTER):  SURNAME, FIRST NAME:		G1.06. ABILITY TO BE INTERVIEWED ALONE:	ALONE
G1.03. SEX OF RESPONDENT:	MALE		
G1.04 TYPE OF HOUSEHOLD	MALE AND FEMALE ADULT1 FEMALE ADULT ONLY2		

## MODULE G2: ROLE IN HOUSEHOLD DECISION-MAKING AROUND PRODUCTION AND INCOME GENERATION

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

	sk you some questions about your ertain types of work activities."	Did you yourself participate in [ACTIVITY] in the past 12 months (that is, during the last [one/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]
ACTIVITYCODE	ACTIVITY DESCRIPTION	G2.01	G2.02	G2.03
А	Food crop farming: These are crops that are grown primarily for household food consumption	YES 1 NO	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE 98 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS
В	Cash crop farming: These are crops that are grown primarily for sale in the market	YES	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE 98 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE
С	Livestock raising	YES 1 NO	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE 98 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE 98 → SKIP TO NEXT ACTIVITY
D	Non-farm economic activities: This would include things like running a small business, self-employment, buyand-sell	YES	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE 98 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE
Wage and salary employment: This could be work that is paid for in cash or in-kind, including both agriculture and other wage work		YES 1 NO	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE 98 → SKIP TO NEXT ACTIVITY	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS 02 INPUT INTO MOST OR ALL DECISIONS 03 NO DECISION MADE
F	Fishing or fishpond culture	YES1 NO	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS	NO INPUT OR INPUT IN FEW DECISIONS 01 INPUT INTO SOME DECISIONS

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."

"Now I'd like to ask you about your household's ownership of a number of items that could be used to generate income."								
P	RODUCTIVE 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	
P	RODUCTIVE CAPITAL <sup>20</sup>	G3.01a	G3.01b	G3.02	G3.03	G3.04	G3.05	G3.06
A	Agricultural land (pieces/plots)	YES1 NO2→ SKIP TO NEXT ITEM		PARTNER/SPOUSE2 OTHER HH MEMBER3	SELF	SELF	PARTNER/SPOUSE2 OTHER HH MEMBER3	SELF
В	Large livestock (oxen, cattle)	YES1 NO2→ SKIP TO NEXT ITEM		PARTNER/SPOUSE	OTHER NON-HH MEMBER 4 NOT APPLICABLE98	SELF	OTHER HH MEMBER	NOT APPLICABLE98
С	Small livestock (goats, pigs, sheep)	YES1 NO2→ SKIP TO NEXT ITEM		OTHER NON-HH MEMBER 4 NOT APPLICABLE98	PARTNER/SPOUSE	SELF	OTHER NON-HH MEMBER 4 NOT APPLICABLE98	PARTNER/SPOUSE
D	Chickens, Ducks, Turkeys, Pigeons	YES1 NO2→ SKIP TO NEXT ITEM		SELF	PARTNER/SPOUSE	SELF	PARTNER/SPOUSE2 OTHER HH MEMBER3	OTHER HH MEMBER 3 OTHER NON-HH MEMBER 4
Ε	Fish pond or fishing equipment	YES1 NO2→ SKIP TO NEXT ITEM		SELF 1 PARTNER/SPOUSE 2 OTHER HH MEMBER 3 OTHER NON-HH MEMBER 4 NOT APPLICABLE 98	PARTNER/SPOUSE	SELF	SELF 1 PARTNER/SPOUSE 2 OTHER HH MEMBER 3 OTHER NON-HH MEMBER 4 NOT APPLICABLE	OTHER NON-HH MEMBER 4
F	Farm equipment (non- mechanized: hand tools, animal-drawn plows)	YES1 NO2→ SKIP TO NEXT ITEM		PARTNER/SPOUSE		SELF	OTHER HH MEMBER	SELF       1         PARTNER/SPOUSE       2         OTHER HH MEMBER       3         OTHER NON-HH MEMBER       4         NOT APPLICABLE       98
G	Farm equipment (mechanized: tractor- plough, power tiller, water pump)	YES1 NO2→ SKIP TO NEXT ITEM			OTHER NON-HH MEMBER 4	SELF	PARTNER/SPOUSE2 OTHER HH MEMBER3	OTHER NON-HH MEMBER 4

<sup>&</sup>lt;sup>20</sup> Examples given within productive capital categories are not extensive and should be adapted to local context by either adding to or replacing suggestions in parentheses.

_	RODUCTIVE CAPITAL	Does anyone in your household currently have any [ITEM]?	,	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		CIRCLE ALL APPLICABLE
PI	RODUCTIVE CAPITAL <sup>20</sup>	G3.01a	G3.01b	G3.02	G3.03	G3.04	G3.05	G3.06
Н	Nonfarm business equipment (solar panels used for recharging, sewing machine, brewing equipmen)	YES1 NO2→ SKIP TO NEXT ITEM		SELF       1         PARTNER/SPOUSE       2         OTHER HH MEMBER       3         OTHER NON-HH MEMBER       4         NOT APPLICABLE       .98				
ı	House or other structures	YES1 NO2→ SKIP TO NEXT ITEM		SELF       1         PARTNER/SPOUSE       2         OTHER HH MEMBER       3         OTHER NON-HH MEMBER       4         NOT APPLICABLE       98				
J	Large consumer durables (refrigerator, TV, sofa)	YES1 NO2→ SKIP TO NEXT ITEM		SELF				
K	Small consumer durables (radio, cookware)	YES1 NO2→ SKIP TO NEXT ITEM		SELF				
L	Cell phone	YES1 NO2→ SKIP TO NEXT ITEM		SELF				
M	(pieces/plots, residential or commercial land)	YES1 NO2→ SKIP TO NEXT ITEM		SELF				
N		YES1 NO2→ SKIP TO MODULE G3(B)		SELF       1         PARTNER/SPOUSE       2         OTHER HH MEMBER       3         OTHER NON-HH MEMBER       4         NOT APPLICABLE       98				

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."

LENDIN	G SOURCES	Has anyone in your household taken any loans or borrowed cash/in-kind from [SOURCE] in the past 12 months?	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	
LENDIN	IG SOURCE NAMES <sup>21</sup>	G3.07	G3.08	G3.09	
A	Non-governmental organization (NGO)	YES, CASH	SELF	SELF	
В	Informal lender	YES, CASH	SELF	SELF       1         SPOUSE       2         OTHER HH MEMBER       3         OTHER NON-HH MEMBER       4         NOT APPLICABLE       98	
С	Formal lender (bank/financial institution)	YES, CASH	SELF	SELF       1         SPOUSE       2         OTHER HH MEMBER       3         OTHER NON-HH MEMBER       4         NOT APPLICABLE       98	
D	Friends or relatives	YES, CASH	SELF	SELF	
E	Group based micro-finance (including SACCO)	YES, CASH	SELF	SELF	

<sup>&</sup>lt;sup>21</sup> To adapt to country context, locally relevant examples may be given within lending sources categories.

## MODULE G4A: 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 >> NEXT QUESTION YES, BUT WITH DIFFICULTY
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 >> NEXT QUESTION YES, BUT WITH DIFFICULTY
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 >> NEXT QUESTION YES, BUT WITH DIFFICULTY

# MODULE G4b continued: GROUP MEMBERSHIP

"Now I'm going to ask you about groups in the community. These can be either formal or informal and customary groups."

GROUP MI	EMBERSHIP	Is there a [GROUP] in your community?	Are you an active member of this [GROUP]?
	GROUP CATEGORIES	G4.04	G4.05
Α	Agricultural / livestock/ fisheries producer's group (including marketing groups)	YES	YES1 NO2
В	Water users' group	YES2 NO	YES 1 NO 2
С	Forest users' group	YES	YES 1 NO 2
D	Credit or microfinance group (including SACCO)	YES	YES 1 NO 2
E	Mutual help or insurance group (including burial societies)	YES2 NO	YES 1 NO 2
F	Trade and business association	YES	YES 1 NO 2
G	Civic groups (improving community) or charitable group (helping others)	YES2 NO	YES 1 NO 2
Н	Local government	YES	YES 1 NO 2
ı	Religious group	YES	YES 1 NO 2
J	Other [women's/men's] group (only if it does not fit into one of the other categories)	YES	YES1 NO2

 K
 Other (SPECIFY)
 YES
 1
 NO
 2
 SKIP TO NEXT GROUP DON'T KNOW
 YES
 1
 NO
 2

MODULE G5(A): DECISION MAKING
"Now I have some questions about making decisions about various aspects of household life."

	viriave some questions about making decisions about various aspe		1
		When decisions are made regarding [ACTIVITY] who is it that normally takes the decision?  CIRCLE ALL APPLICABLE	To what extent do you feel you can make your own personal decisions regarding [ACTIVITY] if you want(ed) to?
ACT	VITY	NOTE: DO NOT ASK G5.02 IF SELF IS THE ONLY RESPONSE	
	ACTIVITY	G5.01	G5.02
A	Getting inputs for agricultural production	SELF	NOT AT ALL
В	The types of crops to grow	SELF	NOT AT ALL
С	Taking crops to the market (or not)	SELF	NOT AT ALL
D	Livestock raising	SELF	NOT AT ALL
E	Your own (singular) wage or salary employment	SELF	NOT AT ALL
F	Major household expenditures (such as a large appliance for the house like refrigerator)	SELF	NOT AT ALL
G	Minor household expenditures (such as food for daily consumption or other household needs)	SELF	NOT AT ALL

### MODULE G5(B): MOTIVATION FOR DECISION MAKING

"Now I am going to read you some stories about different farmers and their situations regarding different agricultural activities. This question format is different from the rest so take your time in answering. For each I will then ask you how much you are like or not like each of these people. We would like to know if you are completely different from them, similar to them or somewhere in between. There are no right or wrong answers to these questions." **ENUMERATOR: READ EACH STORY, SUBSEQUENT QUESTION, AND RESPONSE CODES ALOUD. CIRCLE ONE RESPONSE CODE.** 

NOTE: NAMES SHOULD BE ADOPTED TO LOCAL CONTEXT AND TO BE MALE/FEMALE DEPENDING ON THE SEX OF THE RESPONDENT.

			STORY	QUESTION 1	RESPONSE	QUESTION 2	RESPONSE (CIRCLE ONE)	QUESTION 3	RESPONSE (CIRCLE ONE)
	The types of crops to grow for	<b>G</b> 5. <b>A</b> 1	"[PERSON'S NAME] can't grow other types of crops here for consumption and sale in market. Beans, sweet potato and maize are the only crops that grow here."	Are you like this person?	Yes1  → Question 2  No2  → Question 3	Are you completely the same or somewhat the same?	same1	somewhat different?	Completely different1  Somewhat different2
A	consumption and sale in market	<b>G</b> 5.A2	"[PERSON'S NAME] is a farmer and grows beans, sweet potato, and maize because her spouse, or another person or group in her community tells her she must grow these crops. She does what they tell her to do."	Are you like this person?	Yes1  → Question 2  No2  → Question 3	somewhat the same?	Completely the same1>Skip to G5.A3  Somewhat the same2→ Skip to G5.A3	Are you completely different or somewhat different?	Completely different1  Somewhat different2

1,8.		G5.A3	"[PERSON'S NAME] grows the crops for agricultural production that her family or community expect. She wants them to approve of her as a good farmer."	Are you like this person?	Yes1  → Question 2 No2  → Question 3	Are you completely the same or somewhat the same?	Completely the same1>Skip to G5.A4  Somewhat the same2→Skip to G5.A4	Are you completely different or somewhat different?	Completely different1  Somewhat different2
		<b>G</b> 5.A4	"[PERSON'S NAME] chooses the crops that she personally wants to grow for consumption and sale in market and thinks are best for her family and business. She values growing these crops. If she changed her mind, she could act differently."	Are you like this person?	Yes1  → Question 2 No2  → Question 3	Are you completely the same or somewhat the same?	Completely the same1>Skip to G5.B1  Somewhat the same2→Skip to G5.B1	Are you completely different or somewhat different?	Completely different1  Somewhat different2
	Taking crops to the	<b>G</b> 5.B1	"There is no alternative to how much or how little of her crops [PERSON'S NAME] can take to the market. She is taking the only possible amount."	Are you like this person?	Yes1  → Question 2 No2  → Question 3	Are you completely the same or somewhat the same?	Completely the same1>Skip to G5.B2  Somewhat the same2→Skip to G5.B2	Are you completely different or somewhat different?	Completely different1  Somewhat different2
В	market (or not)	G5.B2	"[PERSON'S NAME] takes crops to the market because her spouse, or another person or group in her community tell her she must sell them there. She does what they tell her to do."	Are you like this person?	Yes1  → Question 2  No2  → Question 3	Are you completely the same or somewhat the same?	Completely the same1>Skip to G5.B3  Somewhat the same2→Skip to G5.B3	Are you completely different or somewhat different?	Completely different1  Somewhat different2

S 3.55	mennan's Object Phones	G5.B3	"[PERSON'S NAME] takes the crops to the market that her family or community expect. She wants them to approve of her as a good business woman."	Are you like this person?	Yes1  → Question 2 No2  → Question 3	Are you completely the same or somewhat the same?	Completely the same1>Skip to G5.B4  Somewhat the same2 → Skip to G5.B4	Are you completely different or somewhat different?	Completely different1  Somewhat different2
		G5.B4	"[PERSON'S NAME] chooses to take the crops to market that she personally wants to sell there, and thinks is best for her family and business. She values this approach to sales. If she changed her mind, she could act differently."	Are you like this person?	Yes1  → Question 2  No2  → Question 3	Are you completely the same or somewhat the same?	Completely the same1>Skip to G5.C1  Somewhat the same2 →Skip to G5.C1	Are you completely different or somewhat different?	Completely different1  Somewhat different2
С	Livertock raining	<b>G</b> 5.C1	"[PERSON'S NAME] can't raise any livestock other than what she has. These are all that's available."	Are you like this person?	Yes1  → Question 2 No2  → Question 3		Completely the same1>Skip to G5.C2  Somewhat the same2 → Skip to G5.C2	Are you completely different or somewhat different?	Completely different1  Somewhat different2
	Livestock raising	G5.C2	"[PERSON'S NAME] raises the types of livestock she does because her spouse, or another person or group in her community tell her she must use these breeds. She does what they tell her to do."	Are you like this person?	Yes1  → Question 2 No2  → Question 3	Are you completely the same or somewhat the same?	Completely the same1>Skip to G5.C3  Somewhat the same2 →Skip to G5.C3	Are you completely different or somewhat different?	Completely different1  Somewhat different2

G5.C3	"[PERSON'S NAME] buys the kinds of livestock that her family or community expect. She wants them to approve of her as a good livestock raiser."	Are you like this person?	Yes1  → Question 2 No2  → Question 3		Completely the same1>Skip to G5.C4  Somewhat the same2 →Skip to G5.C4	Are you completely different or somewhat different?	Completely different1  Somewhat different2
<b>G</b> 5.C4	"[PERSON'S NAME] chooses the types of livestock that she personally wants to raise and thinks are good for her family and business. She values raising these types. If she changed her mind, she could act differently."	Are you like this person?	Yes1  → Question 2  No2  → Question 3	Are you completely the same or somewhat the same?	Completely the same1>Skip to Module G6  Somewhat the same2 → Skip to Module G6	Are you completely different or somewhat different?	Completely different1  Somewhat different2

### **MODULE G6A: TIME ALLOCATION**

G6.01a: 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 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."

		Nigl	ht		M	orning					Da	у								
	Activity	4		5	6		7	8		9	10		11	12		13	14	1	5	
Α	Sleeping and resting																			
В	Eating and drinking																			
С	Personal care																			
D	School (also homework)																			
Е	Work as employed																			
F	Own business work																			
G	Farming/liv estock/fishing																			
J	Shopping/getting service (incl health services)														П					
K	Weaving, sewing, textile care																			
L	Cooking																			
М	Domestic work (incl fetching wood and water)																			
N	Care for children/adults/elderly																			
Р	Travelling and communiting																			
Q	Watching TV/listening to radio/reading																			
Т	Exercising																			
U	Social activities and hobbies																			
W	Religious activities																			
Χ	Other, specify																			

# **MODULE G6A continued: TIME ALLOCATION**

	he U.S. Government's Olobal Hunger St Food Sec	1,2	tive		vening			Night								
	Activity	16		17	18	19	20	21	22	23	24	1		2	3	
Α	Sleeping and resting															
В	Eating and drinking															
С	Personal care															
D	School (also homework)															
Ε	Work as employed															
F	Own business work															
G	Farming/liv estock/fishing															
J	Shopping/getting service (incl health services)															
K	Weaving, sewing, textile care															
L	Cooking															
М	Domestic work (incl fetching wood and water)															
N	Care for children/adults/elderly															
Р	Travelling and commuting															
Q	Watching TV/listening to radio/reading															
Т	Exercising															
U	Social activities and hobbies															
W	Religious activities															
Χ	Other, specify															

# MODULE G6B continued: SATISFACTION WITH TIME ALLOCATION

QNO.	QUESTION	RESPONSE OPTIONS/INSTRUCTIONS
G6.01b	In the last 24 hours, did you work (at home or outside of the home)	More than usual1 About the same as usual2 Less than usual3
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.	SATISFACTION RATING:
30.02	NOTE: LEISURE EXAMPLES SHOULD BE MODIFIED FOR LOCAL CONTEXT.	
	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?	

### 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 5 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:
		MONTH DK MONTH98				
H02	In what month and year were you born?					
		YEAR DK YEAR9998				
H03	Please tell me how old you are. What was your age at your last birthday?	YEARS	YEARS	YEARS	YEARS	YEARS
	RECORD AGE IN COMPLETED YEARS	IF RESPONDENT KNOWS HER AGE, SKIP TO H05	IF RESPONDENT KNOWS HER AGE, SKIP TO H05			

NO.	QUESTION	WOMAN 1	WOMAN 2	WOMAN 3	WOMAN 4	WOMAN 5
	18. Governmen's Olded Hanger & Food Securey to	IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER '98' AND ASK QUESTION H04.	IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER '98' AND ASK QUESTION H04.	IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER '98' AND ASK QUESTION H04.	IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER '98' AND ASK QUESTION H04.	IF RESPONDENT CANNOT REMEMBER HOW OLD SHE IS, ENTER '98' AND ASK QUESTION H04.
H04	Are you between the ages of 15 and 49 years old?	YES1 NO2 DK8	YES	YES1 NO2 DK8	YES1 NO2 DK8	YES
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	YES	YES1  NO2 CHECK DK	YES	YES
	WOMEN'S NUTRITIONAL STATUS					
H06	Are you currently pregnant?	YES	YES	YES1 → SKIP TO	YES1 → SKIP TO DIETARY DIVERSITY  NO2 DK8	YES1 → SKIP TO DIETARY DIVERSITY  NO2 DK8

#### **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, UNDERLINE THE CORRESPONDING FOOD AND 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:				
H14	Food made from grains, such as bread, rice, noodles, porridge, or Khmer noodle?	YES	YES	YES	1102	YES
H15	Pumpkin, carrots, or sweet potatoes that are yellow or orange inside or tomato?	YES	YES	YES	NO2	YES1 NO2 DON'T KNOW8

NO.	QUESTION	WOMAN 1	WOMAN 2	WOMAN 3	WOMAN 4	WOMAN 5
H16	White potatoes, white yams, , cassava, sweet potatoes or any other foods made from roots?	YES	YES	YES	YES	YES
H17	Any dark green leafy vegetables such as bok choy water spinach/water green?	YES	YES	YES	YES	YES
H17	Any other vegetables?	YES	YES	YES1 NO	YES	YES1 NO
H18	Ripe mango , ripe papaya ,jack fruit. ?	YES	YES	YES	YES	YES
H18 A	Any other fruits?	YES	YES	YES	YES	YES
H19	Liver, kidney, heart, or other organ meats?	YES	YES	YES	YES	YES
H19 a	Any meat, such as beef, pork, lamb, goat, chicken, or duck?	YES	YES	YES	YES	YES
H20	Any organs from wild animals, such as [names of local commonly-consumed wildlife]?	YES	YES	YES	YES	YES
H20 a	Any flesh from wild animals, such as boar?	YES	YES	YES	YES	YES
H22	Eggs?	YES	YES	YES	YES	YES
H23	Fresh or dried fish, shellfish, or seafood?	YES	YES	YES	YES	YES
H24 A	Any foods made from beans such as tofu	YES	YES	YES	YES	YES

H24		YES1	YES1	YES1	YES1	YES1
D D	Any foods made from nuts or seeds such as cashew nut,	NO2	NO2	NO2	NO2	NO2
ь	U.S. Government's Global Hunger & Food Security Initiative	DON'T KNOW8				

NO.	QUESTION	WOMAN 1	WOMAN 2	WOMAN 3	WOMAN 4	WOMAN 5
H25	Milk, cheese, yogurt, or other milk products?	YES	YES	YES	YES	YES
H26	Any oil, fats, or butter, or foods made with any of these?	YES	YES	YES	YES	YES
H27	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?	YES	YES	YES	YES	YES
H28	Condiments for flavor, such as chilies, spices, herbs, fish powder or knorr?	YES	YES	YES	YES	YES
H29	Grubs, snails or insects such as cricket?	YES	YES	YES	YES	YES
H30	Foods made with red palm oil, red palm nut, or red palm nut pulp sauce? <b>Probe if say yes</b>	YES	YES	YES	YES	YES

### MODULE I. CHILD ANTHROPOMETRY AND INFANT AND YOUNG CHILD FEEDING

HOUSEHOLD IDENTIFICATION (IN DATA FILE, EACH RESPONDENT MUST BE MATCHED WITH THE HH ID)				
	 011011	 .== ^	00.146	

IDENTIFY THE PRIMARY CAREGIVER OF EACH CHILD AGE 0-36 MONTHS IN THE HOUSEHOLD. ASK THESE QUESTIONS OF THE PRIMARY CAREGIVER OF EACH CHILD AGED 0-36 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 5 CHILDREN 0-36 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
101	CAREGIVER'S ID CODE FROM THE HOUSEHOLD ROSTER					
102	CHILD'S ID CODE AND FIRST NAME FROM THE HOUSEHOLD ROSTER	CHILD'S NAME				
103	What is [CHILD'S NAME]'s sex?	MALE	MALE 1 FEMALE 2	MALE1 FEMALE2	MALE 1 FEMALE 2	MALE1 FEMALE2
104	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 DAY98  MONTH DK MONTH98				

7 Fl	Covernment's Clotal Manger & Fond Security Indicative	YEAR DK YEAR9998	YEAR DK YEAR9998	YEAR DK YEAR9998	YEAR DK YEAR9998	YEAR DK YEAR9998
104A	CHECK I04: IS THE INFORMATION ON THE CHILD'S DAY, MONTH, AND YEAR OF BIRTH COMPLETE?	YES 1 → SKIP TO 105 NO2	YES1 → SKIP TO 105 NO2	YES1 → SKIP TO 105 NO2	YES 1 → SKIP TO 105 NO 2	YES 1 → SKIP TO I05 NO2
I04B	Does [CHILD'S NAME] have a health or vaccination card with the birth date recorded?	YES1 NO	YES 1 NO 2 DK 8 TO I05	YES1 NO2 DK8 SKIP TO I05	YES1 NO2 DK8 TO I05	YES1 NO2 SKIP DK8 TO I05
I04C	May I please see the card?	YES	YES	YES1 NO2 CARD NOT AVAILABLE8 ► TO I05	YES	YES
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 DAY98  MONTH DK MONTH98  YEAR DK YEAR9998	DAY DK DAY98  MONTH DK MONTH98  YEAR DK YEAR9998	DAY DK DAY98  MONTH DK MONTH98  YEAR DK YEAR9998	DAY DK DAY98  MONTH DK MONTH98  YEAR DK YEAR9998	DAY DK DAY98  MONTH DK MONTH98  YEAR DK YEAR9998

	How old was [CHILD'S NAME] at [his/her] last birthday? RECORD AGE IN COMPLETED YEARS	YEARS	YEARS	YEARS	YEARS	YEARS
	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
107	CHECK 104, 104D, 105, AND 106 TO VERIFY CONSISTENCY					
107A	CHECK: IS THE YEAR RECORDED IN 104 OR 104D CONSISTENT WITH THE AGE IN YEARS RECORDED IN 105?	YES1 NO2	YES 1 NO 2	YES1 NO2	YES1 NO2	YES1 NO2
107B	ARE YEAR AND MONTH OF BIRTH RECORDED IN 104 OR 104D CONSISTENT WITH AGE IN MONTHS RECORDED IN 106?	YES1 NO2	YES 1 NO 2	YES1 NO2	YES1 NO2	YES1 NO2
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.					
108	CHECK 106. IS THE CHILD UNDER 36 MONTHS?	YES	YES	YES	YES	YES1  NO2 DON'T KNOW8 — PROCEED TO NEXT  CHILD OR, IF THERE ARE NO OTHER CHILDREN, END MODULE
	EXCLUSIVE BREASTFEEDING AND MINIMUM ACCE	PTABLE DIET				
115	CHECK QUESTION 105. IS THE CHILD UNDER 2 YEARS OF AGE?	YES1  NO	YES1  NO2  PROCEED TO NEXT  CHILD OR END  MODULE	YES	YES	YES1  NO2  PROCEED TO NEXT CHILD OR END MODULE

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
The L	A Covernment's Closed Manager & Food Security Institutive	YES1	YES1	YES1	YES1	YES1
I16	Has [CHILD'S NAME] ever been breastfed?	NO2 DON'T KNOW8	DON'T KNOW8 —	DON'T KNOW 8		DON'T KNOW8
		SKIP TO I18 ◀	SKIP TO I18 ◀	SKIP TO I18 ◀	SKIP TO I18 ◀	SKIP TO I18 ◀
117	Was [CHILD'S NAME] breastfed yesterday during the day or at night?	YES1 → SKIP TO I19	YES1 → SKIP TO I19	YES 1 → SKIP TO I19	YES1 → SKIP TO I19	YES1 → SKIP TO I19
		NO2 DON'T KNOW8	NO2 DON'T KNOW8	NO 2 DON'T KNOW 8	NO2 DON'T KNOW8	NO2 DON'T KNOW8
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?	YES1 NO	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES	YES1 NO2 DON'T KNOW8
	Now I would like to ask you about some medicines and vitamins that are sometimes given to infants.					
l19	Was [CHILD'S NAME] given any vitamin drops or other medicines as drops yesterday during the day or at night?	YES2 NO2 DON'T KNOW8	YES2 DON'T KNOW8	YES 1 NO 2 DON'T KNOW 8	YES2 DON'T KNOW8	YES2 NO2 DON'T KNOW8
120	Was [CHILD'S NAME] given rehydration solution (Oralittle) yesterday during the day or at night?	YES	YES	YES 1 NO 2 DON'T KNOW 8	YES2 NO	YES
	READ THE QUESTIONS BELOW. READ THE LIST OF LIQUIDS ONE BY ON	E AND MARK YES OR	NO, ACCORDINGLY.			
	Next I would like to ask you about some liquids that [CHILD'S NAME] may have Did [CHILD'S NAME] have any [ITEM FROM LIST]?:	e had yesterday during t	he day or at night.			
121	Plain water?	YES1 NO2 DON'T KNOW8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES1 NO	YES1 NO2 DON'T KNOW8
		YES1	YES1	YES1	YES1	YES1
122	Infant formula such as Dumex, Similac, France bebe?	NO2 DON'T KNOW8	NO2   DON'T KNOW8	NO2 DON'T KNOW 8		NO2 ¬   DON'T KNOW8 ¬
		4	4	4	4	

X F		SKIP TO I24	SKIP TO 124	SKIP TO 124	SKIP TO I24	SKIP TO 124
123	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 KNOW98	TIMES DON'T KNOW98	TIMES  DON'T KNOW 98
124	Did [CHILD'S NAME] have any milk such as tinned, powdered, or fresh animal milk?	YES1  NO	YES	YES	YES1  NO	YES1  NO
125	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 KNOW98	TIMES DON'T KNOW98	TIMES  DON'T KNOW 98
126	Did [CHILD'S NAME] have any juice or juice drinks?	YES1 NO	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES1 NO	YES1 NO2 DON'T KNOW8
127	Clear broth?	YES1 NO	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES	YES
128	Yogurt?	YES1  NO	YES	YES	YES	YES1  NO
129	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 KNOW98	TIMES DON'T KNOW98	TIMES  DON'T KNOW 98
130	Did [CHILD'S NAME] have any thin porridge?	YES1 NO2 DON'T KNOW8	YES	YES 1 NO 2 DON'T KNOW 8	YES1 NO2 DON'T KNOW8	YES
131	Any other liquids such soy milk?	YES	YES	YES 1 NO 2 DON'T KNOW 8	YES	YES

132	Any other liquids?		NO2	NO2	YES1 NO2 DON'T KNOW8	YES1 NO2 DON'T KNOW8
-----	--------------------	--	-----	-----	----------------------------	----------------------------

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? CÓNTINUE 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, UNDERLINE THE CORRESPONDING FOOD AND 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:
133	Food made from grains, such as bread, rice, noodles, porridge, or Khmer noodle?	YES1 NO	YES		YES	YES1 NO2 DON'T KNOW8
134	Pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside or tomato?	YES	YES2 DON'T KNOW8	YES 1 NO 2 DON'T KNOW 8	YES	YES

135	White potatoes, white yams, manioc, cassava, sweet potatoes or any other foods made from roots?	YES	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES2 NO2 DON'T KNOW8	YES
136	Any dark green leafy vegetables such as bok choy, water spinach/water green?	YES	YES	YES	YES	YES1 NO2 DON'T KNOW8
136A	Any other vegetables?	YES	YES	YES	YES	YES2 NO2 DON'T KNOW8
NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
137	Ripe mangoes, ripe papayas or jack fruit?	YES	YES	YES	YES	YES2 NO2 DON'T KNOW8
137A	Any other fruits?	YES	YES 1 NO 2 DON'T KNOW 8	YES	YES	YES2 DON'T KNOW8
138	Liver, kidney, heart, or other organ meats?	YES	YES 1 NO 2 DON'T KNOW 8	YES	YES	YES2 DON'T KNOW8
138a	Any meat, such as beef, pork, lamb, goat, chicken, or duck?	YES	YES	YES	YES	YES2 DON'T KNOW8
139	Any organs from wild animals, such as wild pig (Boar)?	YES	YES	YES	YES2 NO2 DON'T KNOW8	YES2 DON'T KNOW8
140	Any flesh from wild animals, such as wild pig (Boar)?	YES	YES	YES	YES	YES2 NO2 DON'T KNOW8
141	Eggs?	YES	YES	YES	YES2 NO2 DON'T KNOW8	YES
142	Fresh or dried fish, shellfish, or seafood?	YES1 NO	YES	YES 1 NO 2 DON'T KNOW 8	YES	YES1 NO2 DON'T KNOW8
143A	Any foods made from beans, peas, such as tofu?	YES1 NO2 DON'T KNOW8	YES	YES 1 NO 2 DON'T KNOW 8	YES1 NO2 DON'T KNOW8	YES1 NO2 DON'T KNOW8
143B	Any foods made from nuts or seeds such as cashew nut?	YES1 NO	YES	YES 1 NO 2 DON'T KNOW 8	YES1 NO2 DON'T KNOW8	YES1 NO2 DON'T KNOW8

144	Milk, cheese, yogurt, or other milk products?	YES	YES	YES 1 NO 2 DON'T KNOW 8	YES	YES2 NO2 DON'T KNOW8
145	Any oil, fats, or butter, or foods made with any of these?	YES	YES	YES	YES	YES2 DON'T KNOW8
146	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?	YES	YES2 DON'T KNOW8	YES 1 NO 2 DON'T KNOW 8	YES2 NO2 DON'T KNOW8	YES2 DON'T KNOW8
147	Condiments for flavor, such as chilies, spices, herbs, fish powder or knorr?	YES	YES		YES2 NO	YES1 NO2 DON'T KNOW8
148	Grubs, snails or insects such as cricket?	YES	YES		YES	YES1 NO2 DON'T KNOW8
149	Foods made with red palm oil, red palm nut, or red palm nut pulp sauce?  Prove if answer yes	YES	YES	YES 1 NO 2 DON'T KNOW 8	YES	YES2 NO2 DON'T KNOW8

NO.	QUESTION	CHILD 1	CHILD 2	CHILD 3	CHILD 4	CHILD 5
? The C	CHECK CATEGORIES 33-49					
	IF ALL 'NO,' GO TO I50 IF AT LEAST ONE 'YES' OR ALL 'DON'T KNOW,' GO TO I51					
150	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?	I33–I49 AND RECORD FOODS EATEN.  THEN CONTINUE WITH I51.  NO	I33–I49 AND RECORD FOODS EATEN.  THEN CONTINUE WITH I51.  NO	YES	YES	YES
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 KNOW98	TIMES  DON'T KNOW98	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 I. 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 (Cambodia)** 

Month	Events/Festivals	2010	2011	2012	2013	2014	2015
January	International New Year Day	l January	1 January	1January	1January	1January	1January
,	Victory over Genocide Day	7 January	7 January	7 January	7 January	7 January	7 January
February	Meak Bochea Day	I February	18 February	7 February	25 February	14 February	3 February
March	International Women Day	8 March	8 March	8 March	8 March	8 March	8 March
April	Khmer New Year Day	14,15,16 April	14,15,16 April	13,14,15 April	13,14,15 April	14,15,16 April	14,15,16 April
Мау	International Labor Day	I May	I May	I May	l May	l May	I May
	Visak Bochea Day	28 May	17 May	5 May	24 May	13 May	2 May
	Royal Plowing Ceremony King's Birthday, <b>Norodom</b> <b>Sihamoni</b>	10 May May 13, 14, 15	21 May May 13, 14, 15	9 May May 13, 14, 15	28 May May 13, 14, 15	17 May May 13, 14, 15	6 May May 13, 14, 15
June	International Children Day King's Mother Birthday,	1 June	1 June	1 June	1 June	1 June	1 June
	Norodom Monineath Sihanouk	18 June	18 June	18 June	18 June	18 June	18 June
September	Constitutional Day	24 Sept	24 Sept	24 Sept	24 Sept	24 Sept	24 Sept
October	Pchum Ben Day	7,8,9 Oct	26,27,28 Oct	14,15,16 Oct	3,4,5 Oct	22,23,24 Oct	11,12,13 Oct
	Commemoration Day of King's Father, <b>Norodom</b> <b>Sihanouk</b>	15 Oct	15 Oct	15 Oct	15 Oct	15 Oct	15 Oct
	Paris Peace Agreements Day	23 Oct	23 Oct	23 Oct	23 Oct	23 Oct	23 Oct
	King's Coronation Day, Norodom Sihamoni	29 Oct	29 Oct	29 Oct	29 Oct	29 Oct	29 Oct
November	Independence Day	9 Nov	9 Nov	9 Nov	9 Nov	9 Nov	9 Nov
	Water Festival Ceremony	20,21,22 Nov	9,10,11 Nov	27,28,29 Nov	16,17,18 Nov	5,6,7 Nov	24,25,26 Nov
December	International Human Rights Day	10 Dec	10 Dec	10 Dec	10 Dec	10 Dec	10 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/Birth Date 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/BIRTH-DATE CONSISTENCY CHART FOR SURVEY IN 2015**

	Year o	of birth		Year	of birth
		Has already			
	Has not had	had		Has not had	Has already
	birthday in	birthday in		birthday in	had birthday
Current	2015	2015	Current	2015	in 2015
Age	Don't	know	Age	Don't	know
0	2015				
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	1958	1959
28	1987	1988	58	1957	1958
29	1986	1987	59	1956	1957
30	1985	1986	60	1955	1956

# 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 TNS Cambodia. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing 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 I-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 data base, 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 TNS Cambodia, by calling...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.

May I begin the interview now?		
SIGNATURE OF INTERVIEWER:		
DATE:		
RESPONDENT AGREES TO BE INTERVIEWED →	CONTINU	JE WITH MODULE E:
RESPONDENT DOES NOT AGREE TO BE INTERVIEWE	:D. <del></del> 2	END. "Thank you very much for your

# 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 TNS Cambodia. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing 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 I-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 data base, 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 TNS Cambodia, by calling... 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.

May I begin the interview now?		
SIGNATURE OF INTERVIEWER:		
DATE:		
RESPONDENT AGREES TO BE INTERVIEWED. <del>I ▶</del>	CONTI	INUE WITH MODULE F:
RESPONDENT DOES NOT AGREE TO BE INTERVIEWED	)≯.2	END. "Thank you very much for your

# Annex 5. Informed Consent Form for Respondents Answering Module G Who Were Not Consented for Prior Modules

#### STATEMENT TO BE READ TO THE RESPONDENT:

Do you have any questions?

Thank you for the opportunity to speak with you. We are a research team from TNS Cambodia. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing 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 I-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 data base, 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 TNS Cambodia, by calling...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.

May I begin the interview now?		
SIGNATURE OF INTERVIEWER:		
DATE:		
RESPONDENT AGREES TO BE INTERVIEWEDI▶	CONTI	NUE WITH MODULE G:
RESPONDENT DOES NOT AGREE TO BE INTERVIEWEI time."	D. <b>≯</b> 2	END. "Thank you very much for your

# 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 TNS Cambodia. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing 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 data base, 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 TNS Cambodia, by calling... 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 INTERVIEWEDI▶	CONTINUE WITH MODULE H:	
RESPONDENT DOES NOT AGREE TO BE INTERVIEW time."	/ED	ır

# Annex 7. Informed Consent Form for Parents or Primary Caregivers of Children Eligible for Module I (Children 0-36 Months)

### STATEMENT TO BE READ TO THE RESPONDENT:

Thank you for the opportunity to speak with you. We are a research team from TNS Cambodia. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing 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 data base, 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 TNS Cambodia, by calling... 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 INTERVIEWEDI➤	CONTINUE WITH MODULE I:
RESPONDENT DOES NOT AGREE TO BE INTERVIENT time."	WED

### **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.

Line					
Number	First and Last Name	Age	Sex	Interviewer Notes	
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INFORMED CONSENT REGISTER – <country cambodia=""></country>				
Line Number	First and Last Name	Age	Sex	Interviewer Notes
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