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The Women's Empowerment in Agriculture Index

**A measurement tool striving to make women's empowerment a
tangible and measurable concept**

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Abstract

This thesis assesses the effectiveness and practicality of the Women's Empowerment in Agriculture Index (WEAI) based on two pilots that were conducted in Bangladesh and Uganda. Currently, there is a major gap in gender data, which we should strive to close in order to better target women's needs, and the WEAI is one tool trying to achieve this. By critically analyzing and assessing the effectiveness of this measurement tool, I highlight the positive impacts the WEAI could potentially have on women's empowerment and agricultural development in developing countries. I also present some of the major challenges the WEAI faces that keep it from being a representative measurement tool of women's empowerment. The time period being studied is 2012, which is when the first pilot of the questionnaires was distributed, and 2014, which is when the second pilot of the questionnaires was distributed. Various research strategies were employed such as both qualitative and quantitative analysis of data collected from the pilot findings in Bangladesh and Uganda; semi-structured interviews with researchers who have worked extensively with the WEAI; and the review of published reports, books, journal articles, and government websites. This thesis emphasizes the importance of measurement tools such as the WEAI and the data it produces in order to better focus and target the areas where women lack empowerment in agriculture.

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List of Abbreviations

A-WEAI - Abbreviated Women's Empowerment Agricultural Index
AIAC - Agriculture Input Assistance Card
FTF - Feed the Future
5DE - Five Domains of Empowerment
FAO - Food and Agriculture Organization
GGI - Gender Gap Index
GPI - Gender Parity Index
GNP - Gross National Product
IFPRI - International Food Policy Research Institute
NGO - Non-Government Organization
OPHI - Oxford Poverty and Human Development Initiative
pro-WEAI - Project-Level WEAI
SPSS - Statistical Package for the Social Science
USAID - United States Agency International Development
WEAI - Women's Empowerment in Agriculture Index

Chapter 1: Introduction

1.1 Rational for choice of Topic

Failing to provide women with equal opportunities is not just a violation of a woman's human rights, but it is detrimental to the better good of humanity. In developing countries, women play an integral role in the agricultural sector, however, they often have little to no rights when it comes to decision making power, owning land, or having control over assets. According to the Food and Agriculture Organization (FAO) (2011) closing the gender gap in agriculture is essential to increasing agricultural productivity, achieving food security, reducing hunger and lifting families and communities out of poverty. Therefore, implementing a gender perspective into agricultural policies is crucial to decreasing the gender gap in agriculture and giving women more rights. However, in order to truly address these challenges, there needs to be an acute understanding where women lack empowerment so policies and programs can be effective in targeting these areas. Therefore, a measurement tool should be utilized to not only identify the areas where women lack empowerment in agriculture, but to also track it and see if interventions are successful. One such tool that is designed to do just that is the Women's Empowerment in Agriculture Index (WEAI).

The WEAI is the first-ever measure designed to directly capture women's empowerment and inclusion levels in the agricultural sector. It was initially developed to monitor Feed the Future (FTF), which is the U.S. government's global hunger and food security initiative, program's impact on women's empowerment in the agricultural sector of its partner countries. FTF works with 19 partner countries to develop their agriculture sectors and promote policies and programs that empower women in agriculture. Developed by the United States Agency International Development (USAID), the International Food Policy Research Institute (IFPRI), and the Oxford Poverty and Human Development (OPHI), the WEAI tracks women's empowerment in 5 domains (5DE) (Feed the Future 2014): production, resources, income, leadership and time use, which will be discussed more thoroughly in chapter 3 of the thesis. The WEAI has been piloted twice in Bangladesh and Uganda. Datasets and reports from these pilots have been made public in order to exhibit how the WEAI works and how data is collected. Therefore, these two countries will be used as case studies in this thesis.

I have chosen to write my thesis on the WEAI because I believe data is an essential and integral part to making change and progress, and measuring women's empowerment in agriculture could greatly benefit developing countries. The WEAI is a tool that I am sympathetic towards because its objective is to identify areas where women are disempowered so policies and programs can be designed and implemented in order to empower women in these areas. Therefore, I wanted to critically assess the WEAI and its effectiveness in capturing women's empowerment and to ultimately find out if it lives up to its objective. I also find a tool such as the WEAI to be significant in international development because for the first time women's empowerment is not just a proxy measure, but instead, the WEAI is striving to make it an actual number that can be monitored and tracked so women's empowerment can improve and governments can be held accountable for this number. I believe a tool such as the WEAI was greatly needed in order to improve women's empowerment in agriculture, and now that such a tool as been developed, there is hope that the international community can address women's empowerment in agriculture in an informed way that can be tracked, compared and ultimately improved overtime.

1.2 Research Aims and Questions

The main objective of my research is to determine if the WEAI is an effective in capturing women's empowerment in agriculture. It is a relatively new tool, and therefore assessing its effectiveness in its early existence is important in order to identify the challenges it faces so it can be improved and better fit to capture women's empowerment in agricultural in the most effective way it can. Therefore, the main research question is:

- A) Does the WEAI effectively measure women's empowerment in the agricultural sector?*

The sub research questions focus on how the WEAI can be used to help guide FTF country governments in being more responsive to women's empowerment in agriculture as well as how the WEAI can be used in different contexts. Therefore the two sub-research questions are:

- 1) *How can the WEAI make FTF Partner Country Government's more Responsive in Improving Women's Empowerment in Agriculture?*
- 2) *How can the WEAI be adapted to different circumstances?*

These questions not only address if the WEAI succeeds in what it is intended to do, but it answers how the WEAI can be utilized.

1.3 Background of Women's Empowerment Measurements

In the past, women's empowerment has been based on proxy measurements that merely describe populations at a broad level. However, the problem with this sort of measurement is it does not provide a direct measurement of empowerment. For example, the third Millennium Development Goal used indicators such as ratios of girls to boys in primary school, secondary school and tertiary school; the share of women in wage employment in the nonagricultural sector; and the proportion of seats held by women in national parliament. While this type of data is useful to know when characterizing progress towards women's empowerment, these are simply proxy measurements that do not give any direct measurements of empowerment individually (Alkire, et al. 2012b, 1). Another example is the Gender Gap Index (GGI), which uses broader, aggregate indicators to measure women's empowerment such as health, education, economic opportunity and political opportunity. The problem with these indicators is that they also do not provide a direct measurement of empowerment, and instead just describes and characterizes a population. The problem with both of these methods is that they don't focus on the agency of women, which is key to empowerment (ibid). Instead, they simply describe a population without identifying where women are disempowered. Without knowing where women lack empowerment, it is difficult to truly address the problem. Therefore, a tool that sheds light on disempowerment instead of merely focusing on describing the population as a whole would be valuable.

Recently, there has been a renewed interest in women's empowerment in agriculture and has received much attention from the international community and for good reason: women produce food crops, cash crops, and often manage various parts of the farm such as crops, livestock, forestry and fish farming and are considered to be a large part of the agriculture sector's labor force. However, the agriculture sector in developing countries is underperforming, in part due to the fact women do not have equal access to the resources and opportunities they need to be more productive and successful (Food and Agriculture Organization, 3) Women, on average, make up 43% of the agricultural workforce in developing countries and yet they still have less access than men to productive resources as well as opportunities (ibid, 8). Therefore, it is important to design programs and policies that allow women to have access to the resources they need through the guidance of a tool such as the WEAI.

The WEAI is a multidimensional measurement tool that is reported at the country or regional level and is based on individual data collected by interviewing the head-male decision-maker and head-female decision-maker of a household. The WEAI consists of two-sub indexes in which the first is the percentage of women who are empowered (or disempowered) within the 5DE. The second index is referred to as the Gender Parity Index (GPI), which measures gender parity within a household. For those households that do not have gender parity, the index shows where the gender gap needs to be closed in order to achieve it. These two indexes ultimately create a WEAI score that can be tracked and compared in different places and across time making it unique tool, different from empowerment measurement tools before it. Further understanding and explanation of the WEAI design, data collection, and calculating of the WEAI score will be thoroughly covered in the third chapter of this thesis (Alkire, et al. 2013).

1.4 Key Concepts and Definitions

There are various key concepts that are important in defining so there is a clear understanding of how they are used in this thesis. These key concepts are: agricultural development, empowerment, and gender equality.

Agricultural Development is defined "as the process that creates conditions for the fulfillment of agricultural potential. Conditions include the accumulation of knowledge and access to technology as well as the distribution of inputs and outputs" (Laiglesia 2006, 10).

Empowerment is a concept that is very personal and each person has a unique idea about what it means to be empowered due to personal life experiences and personality. The definition of empowerment used in this thesis will be that of Naila Kabeer's. Kabeer defines empowerment as "expanding people's ability to make strategic life choices, particularly in context in which this ability had been denied to them. Furthermore, it is the ability to exercise choice which encompasses three dimensions: resources which include not only access but also future claims to material, human and social resources, agency which includes processes of decision-making, negotiation and even deception and manipulation, and achievements which are well-being outcomes (Kabeer 1999). It is important to note that while this is the main definition that will be used in this thesis, chapter 4 will present different theoretical approaches to the concept of empowerment and delve deeper into what empowerment involves.

Gender Equality refers to "the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities, and opportunities will not depend on whether they are born male or female. Gender Equality implies that the interests, needs, and priorities of both men and women are taken into consideration, recognizing the diversity of different groups of women and men..." (United Nations n.d.)

1.5 Significance of Study

The study of the WEAI and its effectiveness in measuring and capturing women's empowerment in agriculture is significant because if effective, it can have a profound effect on how agricultural development is improved through the empowerment of women. In theory, the WEAI has the ability to provide data that could target areas where women lack empowerment in order to make them more productive in agriculture as well as obtain more rights. Not only can a tool like the WEAI advance agricultural development but it can also shed light on the importance of women's integration into the agricultural sector of developing countries. This study addresses the significance women's rights, agricultural development, poverty reduction, and policymaking, which will be explained.

Women's Rights – In order to improve women's rights in the agricultural sector of developing countries, there must be data that shows where women are lacking rights and empowerment. The WEAI is a tool that could possibly be capable in providing this data and can bring to light the areas where women are lacking these rights and empowerment in agriculture. A measurement tool like the WEAI can then possibly be used as a guiding tool to ensure policies and programs integrate women into the agricultural sector and provide the same rights as men.

Agricultural Development – Gender gaps in the agricultural sector of developing countries prevents farms performing to their full potential and creates losses in terms of agricultural output, food security, and economic growth. Due to these gender gaps, women have less access than men to inputs, agricultural assets information and extension services, and rural employment opportunities all of which hinder agricultural development (Food and Agriculture Organization, 61). However, since data on women's empowerment in agriculture could assist in closing these gender gaps by targeting the areas where women lack empowerment through programs and policies, agricultural development could progress and reach its full potential

Poverty Reduction – There is consistent evidence that when the status of women is improved, agricultural productivity increases and poverty is reduced. By integrating women into the agriculture sector and giving them equal pay through policies and programs, poor female-headed households, which make up large part of the poor population of developing countries, will be able to lift themselves out of poverty (ibid, 5).

Policymaking – It is imperative that policymakers are gender-conscious when introducing a new policy or implementing new programs in the agriculture sector. The inclusion of women should always be regarded when designing a new policy or revising an old one. Policymakers should make an effort in designing policy that allows women more rights as well as integrating them fully in to the agriculture sector. These policies are not only benefiting women in the agriculture sector, they are also benefiting the community in which they work. The WEAI could play a major role in showing where women lack empowerment and could assist in designing of agricultural policies that are gender conscious.

1.6 Scope of study

This study assesses the effectiveness and practicality of the WEAI by assessing the data of two pilots that were conducted in the Barguna, Jessore, Khulna Madaripur, and Patuakhali districts of Bangladesh, and the Amuru, Kole, Luwero, Masaka, and Igang districts of Uganda. The time period being studied is 2012 (when the first pilot of the questionnaires was implemented) and 2014 (when the second pilot of the questionnaires was implemented in these districts). Various research strategies were employed such as both qualitative and quantitative analysis of data collected from the pilot findings in Bangladesh and Uganda; semi-structured interviews with researchers who have worked extensively with the WEAI; and the review of published reports, books, journal articles, and government websites.

1.7 Limitations of study

There are various limitations of this study. First, I did not collect the first and second pilot data first hand, so there was some aspects of the WEAI data collection I did not fully understand and had to seek guidance from researchers who are familiar with the WEAI. Another limitation of this study is that the pilots will be used instead of the actual baseline and mid-line surveys. This is because this sample size was more manageable for me and not all baseline and mid-line reports were made public. As a result, the sample size is much smaller and is only meant to be representative of the districts where individual-level questionnaires were piloted.

1.8 Organization of study

This thesis consists of 6 chapters, including this introductory chapter. The second chapter discusses the methodology employed in this thesis, such as the data sources that were used, how data was collected, and the analytical strategies that were used in analyzing the data. The third chapter explains how the WEAI was designed, how FTF collects the data through the pilot surveys, and how the WEAI score is calculated. The fourth chapter addresses the mid-level theories that were used as guidance for collecting and analyzing the data as well as to understand the concept of empowerment and to analyze the way that the WEAI operationalizes it. The fifth chapter presents the findings to each of the research questions as well as a discussion of the findings that have been concluded through the analysis process. The sixth and final chapter of this thesis is the conclusion. In the conclusion, suggestions that can make the WEAI more of an effective tool will be given as well as final remarks

Chapter 2: Methodology

2.1 Introduction

The methodology conducted for my research was crucial to the collection of my data and played a key role in the findings of the main research question and the sub-research questions. The methodology that was employed was chosen after researching various methods and determining which methods would best suit the data that was collected for this project. It is important to note that the initial focus of my thesis had changed from tracking Feed the Future programs and its impact on women's empowerment to assessing the effectiveness of the WEAI as a tool in measuring women's empowerment. Therefore, I had to adapt my methods of the initial focus to what is being studied now. It was challenging in the beginning, but I was able to acclimate and make the research methods that were initially employed work with the new study. A discussion of the data sources utilized, how information was obtained, and the analytical strategies employed for each question will be discussed.

2.2 Data Sources

To conduct the research for this study, different methods were used in obtaining the data. Both primary and secondary data sources were utilized to carryout the research. The primary data consists of semi-structured interviews with researchers at USAID and IFPRI, and the secondary data consists of datasets, reports, government documents, official websites, journal articles and books. Both the primary and secondary sources will be used in answering the research questions, which will be presented in chapter 5.

2.2.1 Primary Source

Two semi-structured interviews were conducted with Chiara Kovarik, former senior research analyst for IFPRI, and Farzana Ramzan, Monitoring and Evaluation Specialist for USAID. The Norwegian Social Science Data Service (NSD) approved both of the interviews and both researchers signed consent forms. The interviews were conducted via Skype and each interview lasted approximately 60 minutes. Prior to the interview, a formal interview guide was sent to each researcher in order for them to prepare answers.¹ The final draft of the thesis was also sent to Kovarik and Ramzan for review and their approval.

Both Kovarik and Ramzan were interviewed because not only were they more than willing to sit down and talk extensively about the WEAI with me, but also because since Kovarik was part of IFPRI, and Ramzan was part of USAID, they provided different perspectives on the WEAI. Kovarik has an extensive knowledge and understanding of how the WEAI was developed and what is being done to improve the WEAI. She was particularly familiar with the cognitive testing that was done in order to make the WEAI more effective in capturing empowerment and have lead workshops regarding it in the past. Ramzan is familiar with the management of the WEAI portfolio and of activities for the WEAI. She also monitors and evaluates the WEAI and its data collection so she is well acquainted with how the WEAI is used in the field. While I would have liked to have conducted more interviews with other researchers and those who work in the field with FTF programs, it was difficult to find times to talk via Skype due to their busy schedules and travelling. However, email correspondence with some of the head-researchers at IFPRI and USAID were very helpful in answering questions regarding some of the equations used to calculate the WEAI, which I was struggling to understand in the beginning of my research as well as some questions regarding the data collection and datasets.

¹ Please see Appendix A for Interview Guide

2.2.2 Secondary Sources

Secondary sources were the main sources used to collect data for this study. Secondary sources provided high quality data and allowed me to conduct research I would have not otherwise been able to due to the limited amount of time and lack of resources I have access to. Datasets (which included results from the pilot surveys) provided by IFPRI, government documents and reports published by USAID, and official websites of IFPRI, USAID, and OPHI were resources that allowed me to have an ample amount of data in which I could experiment with and analyze in order to answer my research questions.

The sources for theories that were used in this thesis were books regarding Sen's development theory and both books and journal articles on various theories of empowerment. These sources were used as a guiding tool throughout the thesis in order to help the study stay focused. These sources covered the important aspects that are crucial to women's empowerment and the development of developing countries and how these theories relate to the WEAI.

2.3 Data Collection

Semi-structured interviews with the researchers at IFPRI and USAID, datasets from pilots I and II data published by IFPRI, and literature reviews were all employed in order to obtain information and collect data in order to answer the research questions. A brief overview of each method will be discussed.

Per Bryman (2012, 716) semi-structured interviews,

“...Typically refers to a context in which the interviewer has a series of questions that are in the general form of an interview guide but is able to vary the sequence of questions. The questions are frequently somewhat more general in their frame of reference from that typically found in a structured interview schedule. Also, the interviewer usually has some latitude to ask further questions in response to what are seen as significant replies.”

Semi-structured interviews were conducted with Kovarik and Ramzan in order to have a more in-depth understanding of why and how the WEAI was created, and to also get the perspectives of researchers from two of the main entities that created the WEAI. The interviews were also helpful in answering questions that could not be answered through literary research. The semi-

structured interviews with Kovarik and Ramzan had open-ended questions in order to create a relaxed dialogue in which they felt comfortable in talking freely and openly about the WEAI. It also allowed for me to ask follow-up questions in addition to the research questions that were drafted for the interview guide. Kovarik and Ramzan's interviews were informative because not only did they answer my research questions, but also they raised other questions and points that would have not been thought of otherwise. These interviews were particularly helpful in answering the main research question and the second sub-research question.

Four different WEAI datasets were also used to obtain information: Dataset WEAI Pilot I Bangladesh, dataset WEAI Pilot I Uganda, dataset WEAI Pilot II Bangladesh, and dataset WEAI Pilot II Uganda. These four datasets were analyzed in order to do a brief country cross country comparison as well as to see how the WEAI progressed from pilot I to pilot II. Each dataset contains data obtained through the household questionnaire and the individual-level questionnaires. A copy of the household questionnaire and individual-level questionnaire along with an enumerator manual that explains how each questionnaire should be completed was also included. The individual-level questionnaire, the enumerator manuals, and the merged dataset of each module were used and/or analyzed.

The literature review was extensive and used widely throughout this study. The literature review consisted of using various databases to perform research such as ORIA, Google Scholar, Lexus Nexus, Agrilinks and Academic Search Premier. Official websites were also used to obtain government reports and documents. This literature review covered agriculture, development, women empowerment, gender, and questionnaire design

2.4 Analytical Strategies

2.4.1 Steps in Analytical Strategy

In the first step of my analytical strategy, a conceptual analysis of the theories being employed in this thesis was done. I referred to Sen's development theory and the empowerment theory to show the logic behind the design of the index and to also critically assess the total design. These theories served as a guidance tool in not only showing how these theories support the design of the WEAI, but to also show what important aspects are missing from the WEAI. These theories and its relationship to the WEAI will be addressed further in chapter 4.

Next, it was necessary to look at the individual-level questionnaire of both pilots I and II and analyze the validity and reliability. Through various methods, validity and reliability of the individual-level questionnaire was tested. This step also acknowledged the inherent problems that questionnaires, in general, face.

After testing the reliability and validity, I assessed the changes in design from pilot I individual-level questionnaire to pilot II individual questionnaire. This was an important step because it shows how issues from the first pilot individual-level questionnaire were addressed in the second pilot and also what issues still remain. However, it also reveals what important questions and sections were cut from the second pilot and what important information could now be missing from these questionnaires.

Finally an analysis of the data collected from the pilots was conducted. This analysis was done not only to show the level of women's empowerment in in the piloted areas of Bangladesh and Uganda and how the empowerment score changed from pilot I to pilot II, but to also show if the data collected was representative or if it was indicative of these piloted areas. This analysis also exhibits how the changes in the design of the WEAI could also possibly influence the empowerment score.

2.4.2 Analytical Strategies used to Answer Main Research Question

Testing the reliability and validity is a vital aspect of any research project. Therefore, it was important to look at the reliability and validity of the WEAI and how it attempts to uphold both of these characteristics. To do this, it was necessary to look into different methodologies that can test reliability and validity. Cognitive testing, which was discussed during my interview with Kovarik, was used to test the validity of individual-level questionnaires of the second pilot. Cognitive testing is used to evaluate the quality of the responses to survey questions in order to help determine if survey questions are generating the intended information needed (Johnson and Diego-Rosel 2015). While the interview did not go into great detail about cognitive testing, Kovarik did provide me with literature on the subject which was also used as guidance and direction as to what other sorts of literature should be looked into in order to better understand how the WEAI is valid. To test the reliability of the individual-level questionnaire, I applied Cronbach's Alpha by calculating the Cronbach Alpha's score for some of the modules. Aside from these methodologies, there was an ample amount of information regarding the reliability of the WEAI and how reliability is crosschecked throughout the individual-level questionnaire. Which will be explained in chapter 5.

The design of the individual-level questionnaire is perhaps considered the most valuable part of the WEAI since the data that is derived from it generates the WEAI score. Therefore, an assessment of the individual-level questionnaires is important. By reviewing questionnaire design literature, presentations, and webinars on the design of the WEAI it was possible to assess the effectiveness of the individual-level questionnaire. The assessment focused on the modules of the questionnaire and how each one represented the 5DE, how the questions developed evoked responses on the 10 indicators, and how and why changes were made from pilot I to pilot II. I also assessed whether or not the modules and its questions were capable in capturing the 10 indicators.

The semi-structured interviews were also referred to assess the design of the individual-level questionnaire. While the interview was strictly informational, and therefore not analyzing the responses to the interview questions, the interview questions themselves were based upon a literature review. After extensive reading on the WEAI, gender, development, and agriculture, I was able to formulate questions that would help capture what is relevant to the study. Because of these questions, I was able to have questions answered and receive information that I would not have otherwise had received through a mere literature review. The semi-structured interviews were particularly helpful regarding the WEAI design as well as how the WEAI is making changes and trying to improve.

Because the WEAI is a longitudinal cohort study design, a comparison of the first pilot individual-level questionnaire and the second pilot individual-level questionnaire was carried-out. The comparison of each individual-level questionnaire was important because it presented how the changes, additions or deletions could have possibly affected the results that were produced from these questionnaires. To execute this comparison, a page-by-page, question-by-question comparison was made in order to note every difference between the two. By taking notes on each difference, it was possible to see where the changes, additions and deletions were made in order to address the issues that emerged in the first pilot.

Data analysis with Statistical Package for the Social Sciences (SPSS), which is software that analyzes quantitative data for the social sciences, was used to obtain information from the datasets published and provided by IFPRI and to calculate some of the findings of pilots I and II in Bangladesh and Uganda. One important aspect of the findings was the information regarding missing data. Measuring missing data is important because it plays an important part in determining whether the data is representative or indicative, and through the use of SPSS statistics, analyzing missing responses by analyzing patterns through multiple imputations was possible, and provided a descriptive measure of the patterns of missing values in the data (IBM 2011). Analyzing patterns through multiple imputations via SPSS shows the number and percentage of variables missing 10% or more values, which allows for the identification of questions and modules that are struggling with missing responses. It also shows the number of values that were valid for each variable. Cross tabulations (crosstabs) were also used in order to

identify the relationship between gender and the 5DE's 10 indicators. In SPSS, crosstabs generate contingency tables, which permits the selection of the chi-square test. The chi-square test can be applied to contingency tables in order to establish the level of confidence one can have regarding a relationship between two variables of a population. For this study, the chi-square was employed to show whether or not the relationship between gender and the 10 different indicators of the 5DE was significant in both Bangladesh and Uganda in the second pilot (Bryman 2012).

2.4.3 Analytical Strategies for sub-research questions

The first sub-research question regarding how the WEAI can make FTF government's more responsive to women's empowerment in agriculture, a literature review was performed. For this literature review, electronic databases and government websites were used. Not only were reading relevant texts helpful, but watching the *Closing the Gender Gap* conference from 2012 on video was also helpful. Government websites of FTF countries were also used in order to see how FTF countries are using the WEAI to track women's empowerment in agriculture and how it can provide guidance in designing policies and programs to help improve women's empowerment.

The second research question regarding how the WEAI can be used in different contexts, the semi-structured interviews were used along with reports and webinars. During the semi-structured interview with Ramzan, a question regarding how the WEAI is being improved was asked. It opened a dialogue about different versions of the WEAI and how these different versions can be used for different projects and programs. I was provided invaluable information about the new versions of the WEAI. This dialogue allowed me to ask questions about the new versions of the WEAI and how they can be used in different contexts. I also deemed it necessary to find examples where different organizations are using the WEAI or some version of it in order to show how the WEAI can be versatile. To do this I researched different NGOs that regard women's empowerment as one of their main objectives. As a result, I was able to find an organization that uses the an ad hoc version of the WEAI.

2.5 Conclusion

The methodology that was used to collect and analyze the data for this thesis was crucial to answering the research questions of this study. Not only did these methodologies help answer these questions, but it allowed me to determine which information was necessary to include and what information was not as important. Through semi-structured interviews, literature reviews, and SPSS statistics, it was possible to adequately answer these questions, and in the 5th chapter the findings that were derived from the collected data and the methodologies that were used will be presented.

Chapter 3: The WEAI

3.1 Introduction

Defining women's empowerment in agriculture is complex and difficult, and measuring it is even more complicated, which is why the WEAI was developed as a multidimensional index that looks at various dimensions of empowerment as well as a comparison of women's empowerment to men's empowerment in agriculture (International Food Policy Research Institute 2012). In this chapter a thorough overview of the WEAI will be given starting with how the two indexes (5DE and GPI) are constructed and calculated to produce a WEAI score, then how data for the WEAI is collected, and finally the limitations of the WEAI as an index measurement tool.

3.2 The 5 Domains of Empowerment and the Gender Parity Index

The WEAI is constructed through two different indexes: the 5DE and the GPI. When combined, these two indexes make up the WEAI score in which each partner country is given a score between 0 and 1 with higher values equaling greater empowerment (Hogue and Malapit 2012). These scores are based on the data collected from the individual-level questionnaires that will be described later in this chapter. In order to understand how the WEAI score is computed, there will be an in-depth explanation of how the 5DE and GPI were developed and how scores are calculated.

3.2.1 The 5DE

Women's empowerment in agriculture is multidimensional and cannot solely rely on one indicator. Therefore, the WEAI measures the role and degree of women's involvement in agriculture within the 5DE, which accounts for 90% of the weight of the WEAI. The 5DE are: *Production* which refers to sole or joint decision-making over food and cash-crop farming, livestock, and fisheries as well as independence in agricultural production; *Resources* which is the ownership and access to decision-making power over productive resources such as land, livestock, agricultural equipment, and credit; *Income* which refers to sole or joint control over income and expenditures; *Leadership* refers to membership in economic or social groups and comfort level of speaking in public; and *Time* which is the allocation of time to productive and domestic tasks and satisfaction with the available time for leisure activities (Alkire, et al. 2013).

The 5DE are then weighted through different indicators within each domain which are used to create individual empowerment profiles as shown in Figure 1:

FIGURE I. THE FIVE DOMAINS OF EMPOWERMENT IN THE WEAI

Domain	Indicators	Weight
Production	Input in productive decisions	1/10
	Autonomy in production	1/10
Resources	Ownership of assets	1/15
	Purchase, sale, or transfer of assets	1/15
	Access to and decisions on credit	1/15
Income	Control over use of income	1/5
Leadership	Group member	1/10
	Speaking in public	1/10
Time	Workload	1/10
	Leisure	1/10

Table 1 from International Food Policy Research Institute. 2012. Women's Empowerment in Agriculture Index. Edited by IFPRI USAID, OPHI: International Food Policy Research Institute.

To explain, each respondent is given a binary score in each of the ten indicators listed above which reflects whether or not she or he has adequate achievements in each of the indicators. An empowerment score is then produced for each respondent in which the weight of those indicators that respondent enjoys adequacy of achievements are added up to create a score between 0% and 100%. According Alkire et al. (2013, 5) “All in all, a woman is empowered in 5DE if she has adequate achievements in four of the five domains or is empowered in some combination of the weighted indicators that reflect 80% total adequacy or more...” The reason why 80% is the cut-off is because tracking the change in empowerment is one of the main purposes of the WEAI, and while the reason is rather arbitrary, the researchers at IFPRI, USAID, and OHPI deem 80% as a cut-off that permits a reasonable scope for tracking improvement. The next chapter explores the theoretical and empirical reasons for the selection of these 5 domains and indicators as representative for empowerment.

Qualifications for Adequate Achievements in Each Indicator

To further elaborate on adequate achievements, a break down of each indicator and what it means to have adequate achievements within that indicator based on the responses from the individual-level questionnaire will be explained:

- *Production*
 - *Input in productive decisions*: an individual has adequacy in this indicator if he or she participates and has at least some input in decisions or if she or he feels like they could make a decision in at least two agricultural activities that are given in the individual level questionnaire (Alkire, et al. 2012b, 8).
 - *Autonomy in production*: an individual is considered to have adequate achievements in this indicator if he or she reports during the interview that they are motivated by his or her own values rather than by force or fear (ibid).
- *Access to and control over productive resources*
 - *Ownership of land and assets*: an individual is considered to have adequate achievements in this indicator if he or she states having sole or joint ownership of at least one major asset such as mechanized farm equipment or large livestock (ibid, 9).
 - *Decisions regarding the purchase, sale or transfer of land and assets*: an individual is considered to have adequate achievements in this indicator if he or she can participate in decisions to buy, sell, or transfer assets in any of the productive capital listed in the individual-level questionnaire (ibid).
 - *Access to and decisions about credit*: an individual is considered to have adequate achievements if he or she belongs to a household that has access to credit and if he or she participated in at least one decision regarding credit (ibid).
- *Income*
 - *Control over use of Income*: an individual is considered to have adequate achievements if there is at least one domain where he or she has some input in income decisions (Malapit 2015).

- *Leadership*
 - *Group Membership*: an individual is considered to have adequate achievement in this indicator if he or she is a member in at least one group (Alkire, et al. 2012b 10).
 - *Speaking in Public*: an individual is considered to have adequate achievements in this indicator if he or she reports feeling comfortable speaking-up on any of the questions listed in the individual questionnaire (ibid, 10).
- *Time Allocation*
 - *Workload*: an individual is considered to have adequate achievements in this indicator if he or she has worked less than 10.5 hours in the previous 24-hours (ibid, 11).
 - *Leisure*: an individual is considered to have adequate achievements in this indicator if he or she reports having a satisfactory amount of leisure time (ibid, 11).

The Alkire Foster Method and Computing the 5DE

The Alkire Foster Method is used for calculating the 5DE. Sabina Alkire, the director of OPHI, and James Foster of George Washington University, developed the Alkire Foster Method. The Alkire Foster method was originally designed to measure multidimensional poverty by counting the different types of deprivation that individuals experience such as poor health or lack of education (Alkire and Foster 2011). However, the Alkire Foster Method can be applied to measure other things, such as women's empowerment. The Alkire Foster Method was used to construct the WEAI because according to Alkire, et al. (2013, 75)

“...it not only underlies a headline figure and intuitive partial indexes, but also enables readers to break the headline figure into its 10 indicators to show women's achievements in each indicator and domain, thereby identifying the areas requiring improvements...The 5DE index immediately enables readers to understand *how* women are empowered and disempowered.”

While one of the main objectives of the WEAI is to measure empowerment, the 5DE is developed in such a way that disempowerment can be analyzed. This allows for the identification of critical indicators that must be addressed in order to increase empowerment. Therefore, it is important to be able to identify not only those who are empowered, but how women are disempowered.

There are two different frameworks that can be used in explaining the construction of the 5DE. The first explanation is what Alkire, et al. (2013, 77) calls the “positive notation” which focuses on the percentage of empowered women and adequacies among the disempowered. To determine who is considered “empowered”, calculate the equation $5DE = H_e + H_d(A_e)$. In this equation, H_e is the percentage of women who are empowered, H_d is the percentage of women that are not empowered, and A_e is the average absolute empowerment score among the disempowered (Alkire and Vaz 2012a).

The other notation focuses on the percentage of disempowered women as well as the percentage of domains in which they lack adequate achievements in which $1 - M_0$ is calculated. This notation may be considered more useful since it focuses on the ways in which women are disempowered, and therefore can identify and address where women’s empowerment needs to be increased (Alkire, et al. 2013). However, in order to understand this equation, we must calculate who is disempowered and also calculate the intensity of women’s inadequacies.

In order to identify who is disempowered, there must be a calculation of disempowerment across the 5DE (M_0), which is referred to as the *adjusted headcount*. M_0 consists of two important components: First is the incidence of individuals in a population whose share of weighted inadequacies is more than the disempowerment cut-off (20%), which in the Alkire Foster Method is referred to as k . This first component is called *disempowered headcount ratio* (H_p). Here $H_p = q/n$ in which q is the number of individuals who are disempowered and n is the total population (ibid).

The second component is the intensity of their deprivation, which is also known as inadequacies, and is the average proportion of weighted inadequacies women experience. This second component is called the *intensity of disempowerment* (A_p). Here $A_p = \sum_i^q = 1 c_i(k)/q$, in which $c_i(k)$ is the censored inadequacy score of individual i and q is the number of disempowered individuals (ibid).

It is important to note the difference between an *inadequacy* score and a *censored inadequacy score*: An *inadequacy score*, c_i , is computed for each person in relation to his or her inadequacies across all 10 indicators. According to Alkire, et al. (2013, 77)

“The inadequacy score of each person is calculated by summing the weighted inadequacies experiences so that the inadequacy score lies between 0 and 1. The score reaches a maximum of 1 when the person experiences inadequacy on all 10 indicators. A person who has no inadequacy on any indicator receive a c_i score equal to 0...”

A *censored inadequacy score* is “...for those who inadequacy score is less than or equal to the disempowerment cut-off, even if it is not 0, their score is replaced by 0 and any existing inadequacies are not considered in the ‘censored headcount’...” (ibid)

Therefore, M_0 is the product of H_p times A_p ($M_0 = H_p \times A_p$), and finally the second way to calculate the 5DE is with the equation $1 - M_0$. Once the level of disempowerment is calculated, it is now possible to identify how women are disempowered in different contexts by “decomposing” the indicators. To decompose by indicators, calculate the censored headcount proportion in each indicator. Alkire, et al. (2013, 77) explains:

“The censored headcount ratio for a particular indicator is the number of disempowered people who are deprived on that indicator by the total population. Once all the censored headcount ratios have been computed, it can be verified that the weighted sum of the censored headcount ratios also generates the populations M_0 . That is, if the M_0 is constructed from all 10 indicators...”

This is then calculated as $M_{0\text{ population}} = w_1CH_1 + w_2CH_2 \dots w_{10}CH_{10}$. In this equation, w_1 is the weight of indicator 1 and CH_1 is the censored headcount ratio of indicator and so on and so forth for the other 9 indicators. This is called the *censored headcount* because it does not include

women who are empowered. Once each indicator is calculated, then the percentage contribution of each indicator to overall disempowerment is calculated as: $M_0 = w_d CH_D / M_0_{population}$. The contribution of all the indicators will sum to 100%. If the contribution to disempowerment indicator exceeds its weight, this means that the disempowered are more inadequate in this indicator than in the others, which mean there is need for an intervention in order to increase empowerment (Alkire, et al. 2013).

3.2.2 The GPI

Not only does the WEAI measure women's empowerment, but it also measures the empowerment of women relative to men, which is called the GPI, which contributes 10% to the weight of the WEAI. The GPI is a relative inequality measure that reflects the disparity in SDE between the primary adult male and the primary adult female of each household. The GPI is meant to reflect two things: the percentage of women who enjoy gender parity in which she is empowered and if her empowerment score is equal or greater than the empowerment of her male counterpart; and the empowerment gap which show the average percentage shortfall that a woman without parity experiences in correlation to her male counterpart. The GPI is based only on households that have a woman and a man (no female only households), and therefore households without a primary adult male are not included in this measure so the total WEAI uses the average GPI value of dual-adult households (Alkire and Vaz 2012a). The GPI's primary objective is to therefore show the percentage of women who have achieved parity to their male counterparts as well as show the disparity between women's empowerment and their male counterpart (International Food Policy Research Institute 2012).

The Foster Greer Thorbecke Poverty Gap Measure and Computing GPI

To compute the GPI, the Foster Greer Thorbecke Poverty Gap Method is applied to reflect gender parity. The Foster Greer Thorbecke Method poverty gap measure was developed by James Foster, Joel Greer, and Erik Thorbecke and was designed to measure the intensity of poverty in which people live. It is a unique measure because it does not just merely count everyone who lives below the poverty line as equals, but instead estimates the severity of poverty in which people live (Foster, Greer, and Thorbecke 2010). The Foster Greer Thorbecke Method is therefore useful when measuring GPI because it does not only show whether or not women achieve parity or do not achieve parity, but it shows the depth of their parity or disparity.

In order to show gender parity, the score for men or women whose inadequacy score is less than or equal to the disempowerment cut-off is k replaced by the value of k , which is 20%. It is important to note that this is different from the 5DE, and therefore $C'_i(k)$ is the censored inadequacy score for GPI. Also, when $c_i > k$ then $C'_i(k) = c_i$, but if $c_i \leq k$, then $C'_i(k) = k$ (Alkire, et al. 2013).

Just like the computing of the 5DE, there are two ways of explaining the calculation of the GPI. First there is the “positive” framework, which focuses on women who achieve parity. To calculate the women who have achieved parity the following equation is calculated: $GPI = H_p + H_w R_p$. In this equation H_p is the percentage of women with gender parity, H_w is the percentage of women without gender parity, and R_p is the women’s relative parity score compared to men (Alkire and Vaz 2012a).

The other framework focuses on households that lack of gender parity. To explain, each dual-adult household is identified as either having or lacking gender parity. Households are considered as lacking gender parity if the female is disempowered and her censored inadequacy score is higher than that of her male counterpart. This framework of GPI combines two key components. First is the percentage of women who lack gender parity to their male counterparts. This first component relates to the proportion of gender parity-inadequate households (H_{GPI}). Here, $H_{GPI} = h/m$ where h is the number of households that are considered as lacking gender parity, and m is the total number of dual-adult households in the population (Alkire, et al. 2013).

The second component is the extent of inequality in empowerment between the women who lack parity and their male counterpart, which is called the *average empowerment gap* and is derived from the Foster Greer Thorbecke Method poverty gap equation. The *average empowerment gap* is the average percentage gap between the censored inadequacy scores of the women and men in living households that do not achieve gender parity (I_{GPI}). In this equation, $I_{GPI} = 1/h \sum_j^h = 1 - \frac{C'_i(k)^w - C'_i(k)^M}{1 - C'_i(k)^M}$ where $C'_i(k)^w$ and $C'_i(k)^M$ are the censored inadequacy scores of the primary women and man living in household j and h is the number of households that are gender parity inadequate (ibid).

Therefore, this second framework of GPI is calculated as $GPI = 1 - (H_{GPI} \times I_{GPI})$. The GPI is equivalent to one minus a poverty gap and can be broken down by subgroups and is parallel to the structure of the 5DE. According to Alkire, et al., (2013, 78) “The GPI score can be improved by increasing the percentage of women who enjoy gender parity (reducing H_{GPI}) or, for those women who are less empowered than men, by reducing the empowerment gap between male and female of the same household (reducing I_{GPI}).”

3.2.3 The Total WEAI Formula

Once the 5DE and GPI are calculated, the WEAI score can finally be computed. The equation used is $WEAI = 0.9(5DE) + 0.1(GPI)$ in which the 0.9 times the 5DE accounts for 90% of the WEAI and 0.1 times GPI accounts for 10% of the WEAI, as stated above. This score is computed for every partner country, which can then be compared from country to country (Hogue and Malapit 2012).

3.3 Data Collection

The main instrument used to measure women’s empowerment in agriculture is through individual-level questionnaires that are distributed to smallholder farmers in FTF’s Zone of Influence of each country, which are priority areas where FTF programs operate.² In addition to the individual-level questionnaires, a household-level questionnaire (Module C in the FTF Population-Based Survey) is distributed prior to the individual questionnaire in order to receive background information on the household demographics and related outcomes (Malapit, et al. 2013). According to monitoring and evaluation specialist Farzana Ramzan of USAID, these questionnaires are standardized across FTF countries so the data collected can be compared from country to country. Enumerators, who are usually part of the FTF country’s government statistics agencies, partake in standardized training from USAID and usually one male and one female enumerator administer the questionnaires in each household to ensure the interview process is done properly, and the respondents have a thorough understanding of the questionnaires (Ramzan 2015).

² The Zone of Influence of each country is based on where food security levels are low and poverty levels are high, and also where other donors are working so USAID can collectively work together to reduce poverty. Each FTF Country is also asked to look at areas of the country where agriculture and nutrition projects are concentrated and areas where missions can be held accountable through their programing (ibid).

The study design for the WEAI is a longitudinal cohort study, which means data will be collected on people with certain characteristics at different points in time (Bryman 2012). In this study, these certain characteristics are the head-female decision-maker and the head-male decision-maker of a household whose main source of income is agriculture. It is important to note that respondents are not paid to partake in the survey. In the case of the WEAI, baseline surveys, midline surveys, and end-line surveys have been/will be implemented every two to three years to collect data on this certain population. The baseline surveys were implemented in 2011 and 2012 in which the data collected has been analyzed and reports and findings have been published. The mid-line surveys were implemented in 2014 and are currently being analyzed and reports and findings will be published in 2016. Finally, end-line surveys will be implemented in 2017 and the publishing of these reports is to be determined. However, this thesis focuses on the two pilots that were conducted in Bangladesh and Uganda.

Who participates in the midline and end-line surveys will vary from country to country. Some FTF countries are conducting panel surveys so those who participated in the baseline survey will also participate in the midline and end-line surveys, while other FTF countries administer the survey to respondents who did not necessarily take the baseline survey. Either way, the surveys are meant to be representative of the Zone of Influence of each FTF country or in some cases nationally representative as is the case of Bangladesh (Ramzan 2015). So far there have been two pilots tested for the WEAI in Bangladesh and Uganda. The original pilot was tested in 2012, and the second pilot was tested in 2014. The characteristics of each pilot individual-level questionnaire will be further discussed.

3.3.1 WEAI Pilot I for Bangladesh and Uganda³

The first pilot household questionnaire contains 8 modules that are designed to provide information regarding the current living situation of households. The household questionnaires are distributed to those who have lived in the household for at least 3 of the past 6 months and bears costs for food within the household (Peterman, et al. 2012). These 8 modules within the questionnaire are: ⁴

³ Please note both House-Hold Level Questionnaires and Individual-Level Questionnaires is the same in Pilot I for both Bangladesh and Uganda.

⁴ Please see Appendix B for the Pilot Household-Level Questionnaire

- Module A) *Household identification*, which asks questions regarding the type of household (i.e. male and female adult or female, no male adult), religion, language, and ethnic group within the household (ibid);
- Module B) *Household listing and demographics* which asks questions regarding the relationship to the primary respondent of the questionnaire, the civil status of people living in the household, the literacy of people living in the household as well as their education level (ibid);
- Module C) *Dwelling Characteristics* which asks questions regarding the type of house the respondents live in, whether or not they have proper sanitation and running water in their house hold, and if they have access to clean water and electricity in their household (ibid);
- Module D) *Employment and Labor Force Activities* which asks questions regarding information on household members' primary jobs and secondary jobs, employment status, and type of work (ibid);
- Module E) *Land and Agriculture* (Bangladesh includes Module E1 for Fish Culture) which asks questions regarding land ownership, tenural status, ownership and decision-making, use status and crops (ibid);
- Module F) *Livestock* which asks questions regarding the types of livestock, who owns the livestock, and who has decision-making power over the livestock (ibid);
- Module G) *Business and Entrepreneurship* which asks questions regarding economic activities and decision-making power over business (ibid);
- And Module H) *Consumption and Consumption Habits*, which asks questions regarding food frequency and source of food (ibid).

Then the individual-level questionnaire is administered to individuals who have identified themselves as the primary male decision maker and the primary female decision maker and have completed at least the first two modules of the household-level questionnaire. The individual questionnaire is made up of 7 modules, which are designed to evoke responses on the 5DE:⁵

- Module A) *Individual Identification* which asks questions regarding the type of household (i.e. male and female adult or female, no male adult), the outcome of the interview and the ability to be interviewed alone (ibid);
- Module B) *Role in Household Decision-making around production and income generation* is intended to conjure responses regarding the first domain, *production*. Module B asks questions regarding input to decision-making over both farm and non-farm activities (ibid);
- Module C) *Access to Productive Capital and Access to Credit* is intended to conjure responses regarding the second domain, *resources*. Module C asks questions regarding decision-making and control over capital such as agricultural land, farm equipment, livestock and access to and control over credit. It also asks questions regarding access to extension services (ibid);
- Module D) *Income* is intended to conjure responses regarding the third domain, *income*. Module D asks questions regarding the spending of income and reasons why there is no extra money (if applicable) (ibid);
- Module E) *Individual Leadership and Influence in the Community* is intended to conjure responses regarding the fourth domain, *leadership*. Module E asks questions regarding the level of participation in groups, control over decisions concerning the community and frequency of meeting with groups (ibid);
- Module F) *Time Allocation* is intended to conjure responses regarding the fifth domain, *time*. Module F asks questions regarding time spent at work and time spent on leisure activities and if the respondent is satisfied with their time use (ibid);
- And Module G) *Decision Making* which asks questions regarding who makes decisions within the household and the extent of participation in decisions making. This module is intended to get additional information about decision-making within the household (ibid).

⁵ Please see Appendix C for the Pilot Individual-Level Questionnaire.

3.3.2 WEAI Pilot (II) for Bangladesh and Uganda⁶

While some of the modules remained the same, there were some major changes made to these questionnaires in the second pilot. According Kovarik, in the fall of 2013, there was a learning event held at IFPRI that brought together the contractors and field teams to discuss different issues and problems that needed to be addressed with the WEAI questionnaires. What emerged from this learning event was that there were questions and indicators that were not performing well in the field so that launched a yearlong process of revising the WEAI and condensing some of the questions. It was motivated by USAID's priorities to both shorten and reduce time to administer the WEAI by 30% and streamline the WEAI so that it could become more affordable and more time-efficient, and also to improve problematic modules such as time use, autonomy in production, credit, and speaking in public (Kovarik 2015).

Pilot (II) Household questionnaires are very similar to the first Pilot, but excludes module F (Livestock) and G (Business and Entrepreneurship) and the number of questions being asked has been reduced.⁷ Modules A and B of both Pilot I and Pilot II are the same. Module D (Employment and Labor Force Activities) in pilot II is considerably shorter with asking only 3 questions compared to the 15 questions pilot. Another major change made was the placement of Module C (Dwelling Characteristics). Module C in Pilot II now comes after Module D, and is also shorter, asking only 9 questions instead of 17 questions as in the first pilot. Module E in Pilot II (Land and Agriculture) has also been shortened by asking only 9 questions instead 16. Module H (Consumption and Consumption Habits) has also been shortened by excluding the "Food Frequency" questions (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015).

⁶ Please note both Household-Level Questionnaires and Individual-Level Questionnaires for Pilot II is the same for both Bangladesh and Uganda.

⁷ Please see Appendix D Pilot II Household-Level questionnaire.

Pilot II Individual questionnaires that were administered in Bangladesh and Uganda are quite different from the first pilot (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015):⁸

- *Individual Identification*, questions are cut in half in pilot two and only ask 6 question instead of the original 12 (ibid).
- *Role in Household Decision-making Around Production and Income Generation*, adds two activities (major house hold expenditures and minor household expenditures) and also added two additional questions regarding who normally makes the decisions and to what extent the respondent feels they can make their own personal decisions regarding these activities. This module was also combined with the Income Module (ibid).
- *Access to Productive Capital*, has also been shortened.
 - Section A one of this module only asks 4 questions instead of 10. However, the types of productive capital remain the same (ibid).
 - Section B of this model, regarding lending sources, adds an additional option, which is informal credit/savings groups such as merry go-rounds, tontines, funeral societies, etc., and one additional question: “would you or anyone in your household be able to take a loan or borrow cash/in-kind from a source if you wanted to?”
 - This module drops section C *Access to Agriculture/livestock/fisheries extension*, which was included in the first pilot (ibid).
- *Income*, which was the fourth module in the first pilot, has been combined with the second module, and now the *Motivation for Decision Making* is the fourth module. This module tells “stories” and then asks questions about the story such as “Are you like this person?” or “Are you completely the same or somewhat different?” (ibid)
- *Time Allocation* is now the fifth module and has added a section:
 - This module has added a section regarding how respondents’ time was spent in the last week and whether or not this week was typical. It lists different activities and then asks questions how much time they spent on each activity, whether the spent a usual amount of time on it this past week, and if the last week was not

⁸ Please see Appendix E for Pilot II Individual-Level Questionnaire.

usual, how many hours in the past six months does the respondent usually spend on an activity per week (ibid).

- Instead of asking a long series of questions regarding whether or not the respondent is satisfied with how their time is spent, pilot II asks just one questions regarding their satisfaction of time allocation (ibid).
- *Individual Leadership and Influence in the Community* is now the sixth module in pilot two and is considerably shorter.
 - Section A of the this module only asks two questions regarding speaking in public (ibid).
 - Section B focuses on group membership and lists different group categories and then asks respondent yes or no questions about the group categories (ibid).

Changes made to the individual-level questionnaire and the impact these changes had will be discussed in the fifth chapter of this thesis.

3.4 Limitations of the WEAI

While the WEAI is an innovative tool that has the potential to contribute greatly to measuring women's empowerment, it is not without faults and has its limitations, and the researchers and developers of the WEAI are aware of many of these limitations. Perhaps, most notably, the greatest limitation of the WEAI is that it only surveys the head female in households which means that there may be females in the household who are even more disempowered than the head female, and is not captured in the WEAI; therefore, the score may not be as representative as it could be (ibid, 89). Another limitation is that the WEAI is specifically focused on empowerment in agriculture and not other aspects of life; therefore, women who make decisions regarding non-agricultural activities may appear disempowered if they are not involved in agriculture decisions (ibid). There are also some issues with the domains: for example the survey questions regarding control over *income* and *resources* do not highlight many of the nuances behind these two domains (ibid). The 5 domains also have its faults such as questions regarding time for leisure activities, which is subjective and may not be answered accurately due to adapted preferences (which in other words means women's expectations of leisure time has been tailored to what is possible in their circumstances) and will be explained further in chapter 4 (ibid).

Chapter 4: Theoretical Framework

4.1 Introduction

This chapter will discuss the theories that will be referred to and used in this thesis. The mid-level theories that are being applied are empowerment theory and development theory. These two theoretical frameworks are important because they are both interrelated to one another as well as the WEAI. To explain, FTF supports their partner countries in developing their agriculture sectors to generate economic growth that increases incomes and reduces poverty and hunger. The focus on women empowerment through agricultural development was one of the primary reasons for the development of the WEAI. Therefore, having an acute understanding of Sen's development theory and various theories of empowerment is critical.

In this chapter, these theories will be presented. They will also be used to analyze the choices that were made in creating the 5DE and the WEAI. As will be shown, the choices of dimensions and indicators correspond well with the theories being presented. This is not accidental as the empowerment theory was an important tool during the construction of the WEAI. I personally chose Sen's development theory because it exhibits the rational and validity of the 5DE and its indicators. The presentation of the theories and exploration of their links to the WEAI allows us to bring out and analyze the underlying perspectives and assumptions of the WEAI as well as to highlight important aspects and perspectives that are missing from the WEAI and should possibly be included in its design.

4.2 Development Theory

Amartya Sen has an extensive background in regards to the development of societies and takes a humanitarian stance on the subject. In *Development as Freedom* (1999, 3), Sen argues development “as a process of expanding the real freedoms that people enjoy.” Sen’s approach does not focus on development of gross national product (GNP), the rise in personal incomes or industrialization. Instead, development requires the abolishment of major sources of what Sen calls “unfreedoms”. These “unfreedoms” refer to poverty, tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities or intrusive, repressive states (Sen 1999). Sen dedicates a chapter of his book regarding women’s agency and social change as a means of development. It is this idea of women’s agency and social change of Sen’s development theory that will be referred to in this thesis.

4.2.1 Women’s Agency and Social Change

According to Sen (1999) rights of women have two main approaches: women’s wellbeing, which is practical interests and free agency for women, which are strategic interests. In the past, the main focus of women’s rights has been on the wellbeing of women while free agency for women has lagged behind. While the wellbeing of women is a critical aspect in women’s rights, the free agency of women deserves equal amount of attention. However, women’s rights are slowly evolving to emphasize the importance and active role of women’s agency. Women are starting to be viewed no longer as welfare recipients, but instead are being viewed as what Sen calls “active agents of change” (ibid, 189).

Maxine Molyneux also supports this idea of women’s wellbeing, which she refers to as “women’s practical needs” and women’s strategic interests, which she refers to “strategic needs”. Molyneux (1985) highlights the importance in distinguishing the difference between these two needs in order to effectively plan and develop gender programs. However, as Sen notes, these two interests are indeed interconnected.

While these are two different approaches to women's rights, they are very much interrelated to one another Sen states:

“The active agency of women cannot, in any serious way, ignore the urgency of rectifying many inequalities that blight the well-being of women and subject them to unequal treatment; thus the agency role must be much concerned with women's well-being also. Similarly, coming from the other end, any practical attempt at enhancing the well-being of women cannot but draw on the agency of women themselves in bringing about such change...” (ibid, 190)

Therefore, you cannot address one approach without taking into consideration the other if one wants to bring about social change regarding the wellbeing of women and women's agency.

The limited role of women's agency not only affects women themselves but it also impacts the lives of all people. The agency of women can play an important role in decreasing and removing inequities that reduce women's wellbeing. According to Sen (1999) empirical evidence shows how respect and regard for women's well-being is strongly influenced by women's ability to earn an independent income, to find employment outside of the home, to have ownership rights, and to be educated and literate. All of these contribute to women's agency and ultimately results in empowerment. Take the variables of women working outside of the home and earning their own income: her contribution to her family is more visible and ultimately she has more voice and say because she is less dependent on others. This not only improves her status in the household, but in the community as well and thus provides empowerment. Women's agency and voice influenced by these variables can influence public discussion on various social subjects such as acceptable fertility rates and environmental priorities (ibid, 192).

Perceptions of Entitlements

The perception of entitlements plays a key role in women's agency and social change. The perception of entitlements and contributions to one's family play a major role in the division of a family's joints benefits between men and women. Empowerment and agency amongst women therefore includes the rectification of inequities that plague women's wellbeing in relation to men. How resources are shared and distributed within a family are influenced by both established conventions and factors such as the economic role and empowerment of women and the value systems of a society. When value systems and conventions evolve, the important role

of women is emphasized and education, employment and ownership rights play a crucial role in the economic wellbeing of different members of the family such as children (ibid, 193).

How Women's Agency Affects Development

There is significant evidence that when women are educated and literate, child mortality rates are reduced, which is imperative to the development of a society. Women who are educated and literate tend to regard the welfare of the children to be very important. Therefore, a mothers' agency should be respected and empowered because they will have more influence over family decisions such as putting a greater emphasis on childcare (ibid, 195).

Not only does women's agency reduce child mortality, but it also reduces the gender bias in developing societies. When there are higher levels of female literacy and labor force participation there tends to be lower levels of relative female disadvantage in child survival. However, it is important to note that development in general can sometimes reinforce gender biases when women are not empowered through agency. According to Sen (ibid, 197) "...the level of development and reduced gender bias in survival, it seems to work mainly through variables that are directly related to women's agency, such as female literacy and female labor force participation.." Therefore, women's agency should be taken into consideration when creating development policies so gender biases do not perpetuate.

The reduction in fertility rates is also very important to women's agency and the development of a society. When birth rates are high, there is often a negative effect on women's freedoms due to the persistent childbearing and rearing of children. When women are persistently pregnant and at home taking care of children, they are unable to work outside the home, receive an education, or partake in public forums, and can also be detrimental to women's health. Therefore, women's well-being and women's agency plays an important role in the change of fertility patterns of a society. When this fertility pattern changes and fertility rates are reduced, women's agency and empowerment is increased (ibid, 199).

Women's participation in economic activities can also have a positive effect on development. When women have access to economic resources their participation not only provides themselves with an independent income, but also provides social benefits that derive from the enhancement of women's agency such as the reduction in mortality rates and fertility rates as discussed above. Women's right to own land is also a very important economic activity, especially in regards to agriculture. When women have access to land, they have the ability to influence the economy as well as social change, which can have a positive effect on the balance of economic and social power between men and women (ibid). Women having access to credit is also important because it allows women to invest in their endeavors which can lead to stability and independence. Therefore barriers that prevent women from receiving credit should be removed. According to Sen (ibid, 201) women in Bangladesh who had received credit from Grameen Bank showed a high rate in repayment due to the opportunities that were available to them after receiving the credit.

As Sen (ibid, 202) states: "The changing agency of women is one of the major mediators of economic and social change, and its determination as well as consequences closely relate to many of the central features of the development process". Therefore it is imperative for a society to increase the agency of women because not only does it have a direct impact on women's wellbeing, it has a profound impact on the society as a whole.

4.2.2 Sen's Development Theory and how it supports the WEAI's 5DE and its Indicators

Sen's development theory regarding women's agency and social change is closely related to the WEAI because the WEAI focuses mainly on the agency of women and how agency can empower women and lead to development. The WEAI's 5DE and its indicators are all agency-related and are supposed to reflect and measure the level of agency a woman possesses. Sen's theory of women's agency and social change as a means of development therefore can be useful in understanding the 5DE and its indicators.

The first domain, *production*, is mainly concerned with the decisions about agricultural production. The *production* domain has two indicators, *input in production decisions* and *autonomy in production*. *Input in production decisions* draws upon women's ability and agency to make decisions about agricultural production, which inputs to buy, what crops to plant, who

gets to take crops to the market, and if they are going to raise livestock. *Autonomy in production* refers to women's ability to act on what she values. This indicator provides an understanding of how different women view a situation and what motivates them to act one way or another. The *production* domain is important because not only does it provide an understanding whether or not a woman has the agency to make agricultural decisions and to act on what she values, but production in agriculture is crucial to the development a society (Alkire, et al. 2013). Closing the gender gap in agriculture is essential to increasing agricultural productivity, achieving food security, reducing hunger and lifting families and communities out of poverty (Food and Agriculture Organization 2011). Therefore, having women as agents of production in agriculture can contribute greatly to the development of a society.

The second domain, *resources*, is interested in the ownership of and access to productive resources such as land, livestock, agricultural equipment, and credit as well as having decision-making power over these resources. The resources domain has three indicators, *ownership of land and assets*; *decisions regarding the purchase and sale of land and assets*; and *access to and decisions regarding credit* (Alkire, et al. 2013). As stated above, having ownership and access to land is a key element in not only women's agency, but for the betterment of the economy. When women own land, they have the ability to contribute to their community by planting crops that can be sold at the local market or possibly provide jobs in their community. The second indicator, *decisions regarding the purchase and sale of land and assets*, is also imperative to women's agency because it allows women to have a voice and more control over resources within her family. The third indicator regards *access and obtaining credit* and how credit can be used. Providing women with access to credit can have a profound impact on their agency, and their ability to seek out profitable opportunities, which benefits both women and the community in which they live in due to the new financial opportunities their credit provides. Refer back to Sen's example of Grameen Bank in Bangladesh: when women were allowed to be members of the bank and have access to credit, the repayment rate was high which means not only was their use of the credit was profitable, but they made a contribution to the economy of their society which has great developmental impacts (Sen 1999).

The third domain is *income* and is itself the single indicator. This domain focuses on sole or joint control over income (Alkire, et al. 2013). As Sen states, when women have an independent income, their contribution to the family is more visible and thus has more of a voice in how income is spent and used. Because women are more likely to spend their income on the wellbeing of family, child mortality is reduced which is central to the development of a society (Sen 1999).

Leadership is the fourth domain and is concerned with leadership in the community and views social capital as a valuable resource and as a means of agency. This domain has two indicators, which are *group membership in economic or social groups* and *speaking in public*. The first indicator is interested in women's membership of either social or economic groups such as agriculture producers' or marketing groups, credit or microfinance groups, or local government groups (Alkire, et al. 2013). Sen argues that when women are part of groups, women are provided greater agency and have greater leverage in changing the society in which they live (Sen, 201). For the second indicator, *speaking in public* is concerned with women's ability to speak-up in public on topics such as what infrastructure should be built or to protest the misbehavior of authorities (Alkire, et al. 2013). Sen states that when women have the agency to have public discussion on various social subjects they can have an impact on social change, which can facilitate development (Sen 1999).

The fifth indicator is *time*, which is concerned with the allocation of time to both productive and domestic tasks as well as time for leisure activities. There are two indicators, which are *workload* and *leisure*. *Workload* refers to the productive and domestic workload a woman has and how much time she spends on these tasks. *Leisure* refers to subjective activities that women enjoy such as visiting neighbors or watching television (Alkire, et al. 2013). While *time* may not be directly related to development, having a balanced time of work and leisure activities is important for both the well-being and agency of women. On the one hand, a woman's ability to work outside the home and have an independent income is important to a woman's agency and empowerment, but on the other working outside the home yields what Sen calls a "double burden" for women because not only do women have to go to their productive jobs, but they also

have to tend to household chores (Sen 1999). Therefore, this “double burden” can leave little time for leisure activities for women, which can be detrimental to her wellbeing and her family.

4.3 Empowerment Theory

There are various theories of empowerment that are referred to and were used as guidance during the development of the WEAI. First, there is Naila Kabeer’s women’s empowerment theory, which explains that empowerment is the ability to make strategic life choices. The second theory is Ruth Alsop, Mette Frost Bertelsen, and Jeremy Holland’s theory of empowerment, which refers to empowerment as a group’s or individual’s capacity to make effective choices. The third theory related to empowerment is that of Deepa Narayan’s who defines empowerment as the expansion of assets and capabilities of poor people in order for development to prosper. Each of these theories can help explain how the WEAI was developed and how the 5DE and its indicators were chosen.

4.3.1 Naila Kabeer’s Theory of Empowerment

Naila Kabeer’s idea of women’s empowerment is in terms of women’s ability to make choices. Kabeer’s understanding of empowerment is that it is inevitably tied to disempowerment: if someone is denied the ability to make choices, they are disempowered. More simply, empowerment involves the process of change. Kabeer states “People who exercise a great deal of choice in their lives may be very powerful, but they are not empowered...because they were never disempowered in the first place” (Kabeer 1999, 437).

Kabeer’s 3 dimensions of Women’s Empowerment

According to Kabeer (1999) being able to exercise choice can be thought of in three interconnected dimensions: Resources, which are the preconditions; agency, which is the process; and achievements, which are the outcomes. *Resources* pertain to both material resources and human and social resources, and provide the ability to exercise choice. Resources, in the broadest sense, are acquired through numerous social relationships that are taken place in different institutional spheres that make a society. How these resources are accessed and allocated is based on the laws and norms that govern the distribution of resources. These laws and norms therefore give certain actors authority over others. These actors determine how resources will be allocated and distributed and also have the ability to prioritize who has access to these resources and who does not (ibid).

Agency is the ability to define one's own goals and having the ability and motivation to pursue them. Agency is not only being able to make decisions, but it is having the ability to bargain and negotiate, deceive and manipulate, subvert and resist and even have cognitive processes such as reflect and analyze. Agency can be both positive and negative in regards to power. Agency is positive in the sense one is able to make their own life choices and pursue their goals even if people oppose them. Agency is negative in the other sense because sometimes the capacity of a person can have the power to override the agency of others through the use of violence, coercion or threat (ibid).

Together, resources and agency creates capabilities. According to Amartya Sen (1985) capabilities give potential to the lives that people want to have and achieving valued ways of 'being and doing'. Sen refers to the idea of "functions" which means all possible ways of 'being and doing'. These ways of 'being and doing' are subjective and self-defined by people in a given context. These functions then lead to the third dimension of Kabeer's empowerment: *achievements*. To further explain *achievements*, Kabeer refers to Sen's 'functioning achievements', which are the particular ways of being and doing that are realized by different people. It is important to note that the inability to achieve 'being and doing' can be due to laziness and incompetence and therefore this issue of power is not pertinent. It is only when a person is unable to achieve their goals due to constraints and limitations it is considered disempowerment (ibid, 438).

There is an apprehension over achievements, however, in regards to the measurement of empowerment, and therefore we need a better understanding of choice. When it comes to empowerment, Kabeer asserts that we should be interested in the possible inequalities in people's ability to make choices and not the differences in choices people make. Kabeer believes that just because there is a lack of uniformity in functioning achievements, it does not necessarily mean that there are inequalities. This is because not all members in a society will give the same value to different ways of "being and doing". Therefore it is important to be able to differentiate gendered preferences from gendered denial of choice (ibid).

One way to differentiate preferences from denial of choice is by identifying universally valued functions, such as the functions related to survival and wellbeing like good health and adequate shelter. If these universally valued functions are systematically different in regards to gender, there is evidence that these are gender inequalities rather than differences in preference. However, one major problem with using achievements to measure power is what Naila Kabeer calls “choosing not to choose” (ibid, 440). In situations where there are gender inequalities in wellbeing achievements, there is often the notion that women do not have a choice or are considered the subordinate group who are discriminated by the male-dominant group. However, in many cases the women themselves perpetuate gender inequality. Women have begun to accept the social status-quo that they are of lesser value in a community which not only effect a woman’s own welfare, but other women’s welfare in the community. When women accept that they are the subordinate group, they passively agree to have the longer work hours and heavier work load, the violence inflicted on them by their husbands, or their compliance to bear children even if it deteriorates their health just so she can birth a son to satisfy her husbands wants. These are just a few examples of women undermining their own wellbeing (ibid, 440). These social norms only reinforce women to view themselves as the lesser group in society as well as learn to discriminate against other women. To highlight this, Kabeer refers to Bourdieu’s (1977) notion of *doxa*, which refers to those aspects of tradition and culture that have become so habitual it is naturalized and accepted within a culture. Therefore, achievements may not be the most accurate way to determine if a person is empowered.

The Interrelation of Resources, Agency and Achievements

According to Kabeer (1999) empowerment, resources, agency, and achievements are indivisible. This means resources, agency and achievements are inseparable when determining the meaning of an indicator in any of these three dimensions and measuring its level of empowerment. Kabeer supports this idea of triangulation by stating:

“Specifying access to a resource tells us about potential rather than actual choice and the validity of a ‘resource’ measure as an indicator of empowerment largely rests on the validity of assumptions made about the potential ‘agency’ or entitlement embodied in that resource. It is similarly difficult to judge the validity of an ‘achievement’ measure unless we have evidence, or can make a reasonable guess, as to whose agency was involved and the extent to which the achievement in questions transformed prevailing inequalities in resources and agency...” (ibid, 452)

Therefore, it is imperative to triangulate the evidence that is given in a certain indicator, regardless of what dimension it is being used in, in order to validate that it means what it is supposed to mean.

4.3.2 Ruth Alsop, Mette Frost Bertelsen, and Jeremy Holland’s Theory of Empowerment

Another theory on empowerment that was used in the development of the WEAI and measuring women’s empowerment is that of Ruth Alsop, Mette Frost Bertelsen, and Jeremy Holland of the World Bank. Alsop, Bertelsen, and Holland (2006, 1) define empowerment as “the process of enhancing an individual’s or group’s capacity to make purposive choices and to transform those choices into desired actions and outcomes.” Utilizing concepts of asset-based agency and institution-based opportunity structure, the framework supports that investments and interventions can empower people by focusing on the relationship between *agency* and *opportunity structure*. Alsop, Bertelsen, and Holland (2006) states that it is hypothesized that interventions to improve agency and support opportunities can increase people’s ability to make effective choices and yield development outcomes.

Agency and Opportunity Structures

Alsop, Bertelsen, and Holland (ibid, 11) define *agency* as “an actor’s or group’s ability to make purposeful choices – that is the actor is able to envisage and purposively choose options.” A person or group’s agency is strongly related to their ‘asset endowment’. Assets refer to resources that provide actors to use economic, social and political opportunities to be productive and protect themselves against shocks. Assets include psychological, informational, organizational, material, social, financial, and human assets. It is believed that perhaps the most important asset is the psychological asset because it permits one to transform their assets into choices. Alsop,

Bertelsen, and Holland (2006) explain that the psychological asset is particularly important for women because they are often locked into a cultural framework in which they view their disempowerment as right and justified. In order to change women's way of living, there must be a change in their psychological assets, which is also prerequisite in changing social institutions governing.

While a person or group may be able to choose options, the effective realization of these options will greatly depend on the institutional context within which the actor or groups works and lives. The *opportunity structure* includes institutions that govern people's and group's behaviors as well as influence the success or failures that they make. Institutions are the laws that are developed by societies to shape human interaction and individual choices, which can be either formal or informal. Formal institutions set rules, laws and regulatory frameworks that govern the society's political processes, public services, and organizations. Informal institutions are the unofficial rules that make up incentives and govern relationships within organizations such as bureaucracies, firms or industries as well as cultural practices, value systems, and norms of behavior (ibid, 13).

A precondition to empowerment is an opportunity structure that allows people to transform their assets into effective agency through more equitable rules and more expansive entitlements. A good example of this is educational institutions: By having effective educational institutions, an individual's human assets will be improved while at the same time creating opportunities for him/her to partake in community affairs. By having the new skills that have been gained from education, a person can take advantage of opportunities in participating within the community and possibly have decision-making power (ibid, 16).

Empowerment and Development Outcomes

Alsop, Bertelsen, and Holland put great emphasis on the relationship between power and development. Alsop, Bertelsen, and Holland believe strongly that there is a causal link between empowerment and development outcomes, and therefore supporting empowerment in interventions and policies should be a top priority. According to Alsop, Bertelsen, and Holland (2006, 24) social accountability and government effectiveness demonstrates a noteworthy relationship between accountability and effective public institutions that deliver efficient public

services. In other words, if members of a society have the ability to voice their opinions and hold government institution responsible in delivering services, public institutions will be more effective since there is an accountability factor.

In conclusion, in order to achieve empowerment, governments must be attuned to which interventions will have the greatest impact on increasing choice and transforming these choices into desired outcomes. However, there is no easy way to assess what programs are going to increase empowerment and have the greatest impact (ibid). Therefore, it is important to have a methodological framework that can help identify which interventions will have the greatest impact on empowerment.

4.3.3 Deepa Narayan's Theory of Empowerment

Deepa Narayan refers to the World Bank's definition of empowerment in which "empowerment is the expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control and hold accountable institutions that affect their lives" (Narayan 2002, xviii). This empowerment theory believes that empowerment starts with change in the social institutions of governing. Narayan's theory on empowerment takes on a more systematic and institutionalized approach to empowerment in which there are four key elements of empowerment that must be the foundation for institutional reform which are: *Access to information, inclusion/participation, accountability, and local organization capacity* (ibid):

- *Access to information* refers to information that flows two ways: from government to citizens and from citizens to government. This is an important aspect of empowerment because citizens must be capable in communicating and expressing to governments their needs and be able to hold the government accountable in meeting them. In order to achieve citizens' needs, governments must communicate what is being done to meet them as well as how different services can be utilized to help obtain them. Information is power and is therefore critical in order to achieve empowerment. Citizens who are informed are more able to seize an opportunity, have access to and utilize services, exercise their rights and hold both citizens and the government accountable for their responsibilities and actions. Information includes both state and private sector functioning, financial services and markets, and rules and rights in relation to basic services (ibid, xix).

- *Inclusion and Participation* refers to treating poor people as producers who have authority and control over decisions and resources are distributed to the lowest, appropriate level. In other words, poor people must be treated as productive members of society who are capable in making decisions and having access to resources. Including poor people and other excluded groups in decision-making process is crucial in making sure that limited public efforts build on knowledge and priorities that yields a commitment to change. In order to achieve this, most rules and processes will have to be revised in order to create a space where people can discuss issues and participate in local and national priority-setting and budget formation as well as access to basic financial services (ibid, xx).
- *Accountability* of state officials, public employees, private providers, employers and politicians must be upheld and make them held responsible for their policies and actions that affect the wellbeing of citizens. Accountability comes in three main types: Political accountability refers to the accountability of political parties and representatives which takes place through elections; Administrative accountability of government agencies is ensured through internal mechanisms within and between agencies; Social or public accountability mechanisms hold agencies accountable to its citizens and can also strengthen both political and administrative (ibid, xx).
- *Local Organization Capacity* refers to the ability of people to work together to organize and mobilize resources to create change and solve problems that persist in the society. Organized groups and communities are more likely to have their voices heard and have their needs met (ibid, xx).

In order to achieve these four key elements, Narayan focuses on application of empowerment in five areas which are: provision of basic services, improved local governance, improved national governance, pro-poor market development, and access by poor people to justice:

- *Provision of basic services* means that poor people must have access to and effective utilization of basic services such as health care, education, clean water, and roads. In order to achieve this governments must distribute resources at the community level through different mechanisms such as through private and public actors, central agencies, sectoral agencies or decentralized community-driven development projects. There are

various strategies such as publicizing information about government services and performance, designing mechanisms for inclusion and participation such as delivery schemes that poor people can afford, and endorse social accountability by giving community groups authority and control over key decisions (ibid, xxi).

- *Improved local governance* is imperative for better service delivery as well as responding and meeting the needs of poor people. Empowered local governments increase citizen access to information, enable inclusion and participation, increase accountability of governments to citizens, and invest in local organizations role (ibid, xxii).
- *Improved national governance* is important because it is the start of societal engagement, which refers to a person's level of participation in a community or society. Thus national processes and policies are a determining factor in poor people's access to resources and opportunities. Therefore it is important that these processes include the four key empowerment elements (ibid, xxii).
- *Pro-poor market development* is important because economic growth cannot be sustained if poor people are not included in engaging in productive activities. Poor people are often excluded from equal access to economic opportunities due to discrimination and lack of information. Empowering approaches can help overcome these inequalities that prevent poor people from accessing markets, which is often caused by barriers to accessing the market and lack of resources obtained by poor people (ibid, xxiii).
- *Access to justice and legal aid* are important because it can protect poor people and their livelihoods. Creating a legal environment where the government is held accountable and gives poor people access to justice through various strategies will increase their empowerment and allow them to exercise their rights. Some of the main focuses in regards to access to justice and legal aid are improving administrative justice and making administrative decisions accountable and affordable to citizens, endorsing judicial independence, improving legal education as well as cultural, physical, and financial access to justice and public out-reach and education (ibid, xxiii).

Strategies for improved governance and poverty reductions in the past have lacked focus on citizens and those working at the community level thus concentrating on the supply side instead of the demand side of governance. A demand side approach to governance would focus on creating laws and procedures that allow citizens and poor people's organizations to interact with their governments in an effective manner. In order to achieve this, education and informing citizens must transpire and creating institutional methods for sustaining poor people's inclusion and participation must be carried out (ibid).

In conclusion, not only is empowerment imperative to enhancing poor people's freedom of choice and to act, but it is important for effective development. It is important to note that empowerment is not a solo strategy, and rather it is a way of executing development and is grounded in the principle that poor people are most invaluable in reducing poverty. Through empowerment, people's self-confidence is increased, people believe in themselves, and people develop a self-respect for themselves (ibid, xxiv).

4.3.4 Comparison of Empowerment Theories

Each of these theories captures different aspects of empowerment, and therefore each of one has different ideas as to what it means to be empowered. Kabeer's idea of empowerment focuses on overcoming discrimination and the inequalities of agency, and ultimately having the ability to choose. Kabeer emphasizes a person's ability to have choices and make autonomous decisions as well as one's ability to define goals and having the ability to pursue them. She draws heavily from Sen's capabilities and functions to justify these means of empowerment. She also believes that resources, agency and achievements are interrelated and one cannot be achieved without the other, which means a person must achieve adequacies in each of these areas in order to be empowered. Kabeer's theory of empowerment declares that disempowerment is related to cultural ideas as well as to lack of resources.

While Alsop, Bertelsen and Holland also view empowerment in terms of one's ability to make have choices and make decisions, it greatly emphasizes the importance of civil society and government institutions investing and implementing interventions to support and empower, people which ultimately leads to development. In Alsop, Bertelsen, and Holland's views, it are the institutions responsibility to ensure people have agency and the ability to have choices and

make decisions, and most importantly, provide opportunities for people to capitalize on their assets. This theory of empowerment puts the responsibility of empowering people in the hands of the government and its institutions.

Narayan's theory of empowerment also holds government institutions accountable for empowering its people, but emphasizes that empowerment is a means to an end in achieving development, rather than having empowerment be an end in itself. Narayan believes that the development of a country starts with empowering the poor people of a poor country in order for development to succeed, and if people are disempowered it is because of an unresponsive government. Therefore, the government should create pathways to empowerment that permit communication with governments and inclusion and integration in society.

Each of these theories of empowerment provides different aspects and perspectives as to what it means to be empowered or disempowered. As will appear from the analysis in the next section, each of these theories provides inputs that underlie the WEAI. How each domain and indicator represents empowerment from these three theories will be explained.

4.3.5 How Kabeer, Alsop, Bertelsen, and Holland and Narayan's Theories on Empowerment support the WEAI's 5DE and its indicators

These three theories of empowerment are directly related to how the WEAI measures women empowerment through its five domains. The 5DE reflects aspects of empowerment found in these theories, which will be further explained.

The first three domains, which is *production*, *resources*, and *income* is directly tied to both Kabeer's and Alsop, Bertelsen, and Holland's views on empowerment and one's ability to make choices. To explain further, having the ability to make choices, which in this case are women being able to make choices in agricultural *production* and is the first domain of the 5DE, allows a woman to have control over assets, which can enable to her to act upon the decisions she makes. The first indicator for *production* is *input in productive decisions*. Both Kabeer and Alsop, Bertelsen, and Holland's theories on empowerment support this indicator by stressing the importance of one's ability to make decisions. By having the ability to make decisions and have input regarding agricultural production, a woman can decide as to what types of crops to plant

and as well as have input in different farming activities. The second indicator is *autonomy*, and this is strongly supported by Kabeer's idea of agency. If one has the ability to define their own goals they can be autonomous in their actions and have the agency to pursue their goals. However, if they don't have this capability, you cannot achieve agency (Kabeer 1999).

The *resources* domain, which is the second of the 5DE, combines both whether the woman can potentially make decisions over assets as well as if she has the agency to use it. The first indicator of the *resources* domain is *ownership of assets*. This indicator also ties into Kabeer's idea of agency and having the ability to bargain and negotiate. When a woman has ownership over assets such as land, mechanized farm equipment or large livestock, she has the ability to bargain and negotiate due to her possession and access to these major assets. For example, if a woman is to inherit land, she has the bargaining power not only within her family but the community since she has such a powerful asset. However, if a woman does not have any ownership of major assets, her agency is quite limited. The second indicator is *purchase, sale or transfer of assets*. This indicator also adheres to Kabeer's empowerment theory regarding resources. When a woman has the ability to make decisions over the purchase, sale or transfer of assets, her agency is greatly increased because she has control over some of the major resources in her household (ibid). The third indicator, *access to and decisions on credit*, is supported by Alsop, Bertelsen, and Holland's empowerment theory regarding institution-based opportunity structures. Since it are institutions that decide who can and cannot have credit, they are the one's responsible if a woman cannot have access to credit. Therefore, women's agency is greatly reliant on the institutions that set the rules and laws regarding credit (Alsop, Bertelsen, and Holland 2006).

The third domain, *income*, is important because it is key in having the ability to exercise choice and exhibits if a woman is able to reap the benefits of her efforts. This is particularly important in agriculture because it is often the women who yield crops or livestock yet it is the men who keep most of the income. This domain aligns with both Kabeer and Alsop, Bertelsen, and Holland's empowerment theory because income is a major component to women's agency.

The fourth domain is tied to both Alsop, Bertelsen, and Holland and Narayan's theory of empowerment. The fourth domain is *leadership* and its indicators are *group membership* and *speaking in public*. Both Alsop, Bertelsen, and Holland and Narayan believe that civil society and group membership is a major component of empowerment because it exhibits inclusion and participation, accountability and local organization. Narayan's theory also supports people having the ability to communicate with government's in order to bring about change and development.

The fifth domain is *time-use* and its indicators, *workload* and *leisure*. While time-use is not directly related to any of these theories of empowerment, Narayan's *access to information* key-element can be loosely tied to this domain. By providing women with information about labor-saving technology, women will have the ability to learn and have access to these innovations which can lead to a reduction in the time women spend on both domestic and out-side work, and allow women more time for leisure activities.

4.4 How these empowerment theories exhibit important aspects missing from the WEAI

While these various empowerment theories highlight and support the construction of the 5DE and its indicators, it also highlights some of the important aspects missing from the WEAI and truly capturing the indicators of the 5DE. An explanation from each theory on how the WEAI misses important aspects of empowerment will be further explained.

4.4.1 Choosing not to Choose

Kabeer's empowerment theory and her notion of "choosing not to choose" is an aspect that the WEAI and its researchers are conscious about, yet little has been done to address this "status-quo" way of thinking in its questionnaires. This is especially true for the *time* module and its *leisure* indicator since the developers of the WEAI acknowledge that this indicator may not be representative due to women's adapted expectations. Therefore, there is no way to truly capture the *leisure* indicator and also address "choosing not to choose" which is a major source of disempowerment. As a result, measuring empowerment via the *leisure* indicator may not be the most effective way in measuring a woman's level empowerment in the *time* domain.

4.4.2 Communication of Information and Services

Another important aspect missing from the WEAI can be viewed in Narayan's empowerment theory. Narayan highlights the importance of national and local governments communicating both information and services to its citizens as a source of empowerment. However, access to information and services is not an indicator under any of the domains, which leaves out important information such as the ability to receive information and have access to new technology, new agricultural methods, new seeds or fertilizers, and other ways to enhance one's farming capabilities. While the first pilot individual-level questionnaire asks questions regarding access to Agriculture/livestock/fisheries extensions and information in the *Access to Productive Capital* module (which is supposed to capture the *resources* domain) it is unclear as to what indicator this section is trying to capture which is perhaps why in the second pilot this section is completely dropped. However, the dropping of this section poses as a problem because it creates holes in capturing the *resources* domain. By not asking "where do you typically get information on farming or livestock related topics such as new seeds, technology, crop rotation or animal health" or "have you ever met with an agricultural extensions worker or livestock/fisheries extension worker in the past 12 months" there is no way of knowing if women are receiving information on farming or livestock related topics and we also have no knowledge if they have access to extension services which are both crucial resources and aspects of empowerment according to Narayan. Yet, this issue cannot be addressed via the WEAI because questions regarding information and extensions services are no longer being asked. Therefore, an indicator regarding access to information and services should be considered which could possibly be captured through the *Access to Agriculture/livestock/fisheries extensions* section in the *Access to Productive Capital* module.

4.4.3 Accountability

Both Alsop, Bertelsen, and Holland theory of empowerment and Narayan's theory of empowerment declares that holding institutions accountable for their actions is crucial to empowerment, and in the WEAI, accountability is barely touched upon. Accountability is an important aspect of empowerment because it is the institutions that ultimately create change. While the first pilot individual-level questionnaire asks the question: "do you feel comfortable speaking up in public to protest the misbehavior of authorities or elected officials" in the *Individual Leadership and Influence in the Community* module, it is dropped in the second pilot along with many other questions. By dropping a question like the one previously stated, we do not effectively capture the *speaking in public* indicator because we have no way in knowing if a woman feels that she can hold institutions accountable for their actions and, more importantly, if she feels comfortable in protesting against irresponsible institutions.

4.5 Conclusion

Sen's development theory regarding women's agency and social change, and the theories of women empowerment as presented by Kabeer, Alsop, Bertelsen, Holland, and Narayan, are important in understanding the development and objective of the WEAI. Having an acute understanding of these theories is particularly important during the analysis of each domain and determining whether or not it is effective in measuring empowerment. These theories also show what important aspects are missing from the WEAI, which could possibly prevent it from truly capturing women's empowerment.

Chapter 5: Presentation and Discussion of Findings

5.1 Introduction

Through the guidance of various theories, analyzing both quantitative and qualitative data, and extensive reading on the WEAI, it is now possible to address the main research “*Does the WEAI effectively measure women’s empowerment in the agricultural sector?*” and the sub-research questions: “*How can the WEAI make FTF Partner Country Government’s more Responsive in Improving Women’s Empowerment in Agriculture?*” And “*How can the WEAI be Adapted in different Circumstances?*” First the main research question’s findings will be presented and discussed followed by the sub-research questions.

5.2 The WEAI and its Effectiveness in Measuring Women’s Empowerment in Agriculture

There are many aspects that must be considered when analyzing the effectiveness of a measurement index. In the case of the WEAI, there must be an evaluation of the reliability and validity of the WEAI index, an assessment of the individual level questionnaires and its modules, and analyzing data that was produced from the questionnaires. A presentation of findings and discussion for each of these areas will follow.

5.2.1 The Reliability and Validity of the Individual-Level Questionnaire in Pilots I and II

Checking the reliability and the validity of the individual-level questionnaire is imperative to the data quality that is derived from these questionnaires. According to Alan Bryman (2012, 715) “Reliability is the degree to which a measure of a concept is stable.” Reliability is particularly important to the questionnaire because it shows if the respondents are being consistent with their responses so that there are no discrepancies that could refute other responses they have given. It also shows if the design of the questionnaire was evoking the responses it was intending to evoke. One way the questionnaire tests for reliability is by focusing on decision making and asking different questions regarding decision making in overlapping arenas and seeing if responses are consistent. For example, comparisons can be made in the *Decision Making*, *Resources*, and *Autonomy in Decision Making* modules in which all three ask questions regarding decision making in agricultural production. As Alkire, et al. (2012, 23) explains, “...we can compare whether an individual reported at least input into very few decisions in

module B, making a decisions in at least one of the module C decisions, and at least a joint decision in Module G...” This is helpful in making sure that the answers are consistent and do not change from module to module. In the first WEAI pilot, it was found that more than 55% of the responses were consistent, which is a moderate level that should be improved (Alkire, et al. 2012b).

Another way to test the reliability of the individual-level questionnaire is by comparing the responses of the women and men living in the same household. For example, comparisons can be made in the *Resources* module and the *Autonomy in Decision Making* module in which two types of criteria are used: first is to consider the same corresponding responses (i.e. the woman indicates she makes the sole decision, and the man confirms that she makes the decision), second is to look for contradicting responses (i.e. the women claims she makes the sole decision and the man claims he makes the sole decision) (ibid).

Lastly, reliability can be tested through Cronbach’s Alpha. Cronbach’s Alpha was developed by Lee Cronbach in 1951 in order to provide a measurement of internal consistency of a test or scale. It is expressed as a number between 0 and 1 in which higher scores have higher reliability. According Tavakol and Dennick (2011, 53) internal consistency is referred to as “the extent to which all the items in a test measure the same concept or construct and hence it is connected to inter-relatedness with the test.” Reliability estimates are meant to show the amount of error in a test. In other words, this interpretation of reliability is the correlation of the test with itself. To produce the index measurement of error, square the correlation and subtract it from 1.00 (Tavakol and Dennick 2011). For example, the value of Cronbach’s Alpha for the individual questionnaire has a reliability of 0.85 which means there is a 0.28 error variance in the scores ($0.85 \times 0.85 = 0.72$; $1.00 - 0.72 = 0.28$) for *Resources* and *Decision Making* modules, which concludes these two modules that are used to test reliability of the WEAI are quite reliable (Alkire, et al. 2012b).

Validity is also very important to the quality of the data that is produced from these questionnaires. Per Bryman (2012, 717) “Validity is the concern with the integrity of the conclusions that are generated from a piece of research...” To test the validity of the first pilot, the questionnaires used different phrasing of questions in order to permit validation and comparison of responses across different types of question formations in order to provide guidance when choosing which questions will be included in the final index questionnaire. This experiment was conducted in order to select the most consistent indicators as well as to make the survey administration more efficient (Alkire, et al. 2013). While this experimentation was helpful in making the individual questionnaire more valid, some of the questions were confusing to some of the respondents, which prevented the WEAI from getting the information it needed.

After receiving the first pilot data results, there were various problems with some of the modules in which their validity should be questioned. In particular, the *Autonomy in Decision Making* module was not properly implemented in all three countries. Therefore, a second round of phone calls was conducted in Bangladesh, but was not possible in Uganda or Guatemala. Therefore, USAID stated that pilot data for these questions should be used with caution. To address the problems of this module, the questions have been re-phrased. The other problem in the individual questionnaire of pilot I was the *time* module. This module asks the respondent to recall the past 24-hours of their life, and this is considered to be representative of their everyday life over the past year. It also determines whether or not they the respondent is adequate or inadequate in this domain. However, the past 24-hours may not be representative of their everyday life. As a result, women’s adequacy or inadequacy score may be misidentified. The other module that caused problems was the *leisure* aspect of the *time* module. Findings showed that men’s satisfaction with time was lower than that of women’s. However, it was found that this could possibly be due to women’s adaptive preferences for leisure in which they adapted their preferences to what is possible considering their circumstances, and thus reported higher levels of satisfaction with time than men (Alkire , et al. 2012b, 22-23).

In the second pilot, cognitive testing was conducted in order to address the problems of the first pilot and to further validate the individual questionnaire and the data it produces. Cognitive pretesting played a major role in the revision of the WEAI Pilot (II) individual questionnaire. Cognitive pretesting, is defined as,

“The administration of draft survey questions while collecting additional verbal or observational information about the survey responses that is used to evaluate the quality of the response obtained or to help determine whether the question is generating the intended information” (Willis 2005).

The cognitive pretesting assessed the validity of questions used in the WEAI using cognitive interview data collected during the fielding of the 2012 Haiti-multi-sectoral baseline survey. It was found that, overall, the questions seemed to be well-understood. However, the cognitive assessment showed that there were particular areas of concern in terms of the ability of the WEAI question to produce valid responses from survey participants (Johnson and Diego-Rosel 2015, 1).

The area that was most difficult for the respondents to understand were questions regarding their role in household decision-making. Particularly in regarding the concept of inputs into decision-making. This could be the result of question-specific difficulties or possibly because this module is placed at the beginning of the interview and respondents are still getting used to the interview process (ibid, 7).

In total, 20 cognitive difficulties were observed, a majority, which occurred at the stage of comprehension of terms used in questions or not understanding certain concepts. Therefore rewording of many of the questions was necessary. Another issue was recalling events that happened within the past 12 months and understanding what constitutes as farm activities, as many respondents viewed farm activities as activities that only occur in the field. To address these issues, the WEAI should cease to use jargon and overly formal language, standardize the questions, and use country-specific examples in their questions. Cognitive pretesting should also be used throughout the interview process to further validate the data (ibid, 9). Ultimately, these findings were then used to improve the second pilot of individual questionnaires that were distributed in Bangladesh and Uganda.

The Inherent Problems of Questionnaires

While much has been done to improve the WEAI's individual-level questionnaire, it is important to keep in mind the inherent problems questionnaires face. First, respondents may not always answer the questionnaire honestly. Respondents may feel pressured to answer a certain way or they may exaggerate their amount of empowerment or lack thereof. For this reason, it is important that the head-female decision-maker and head-male decision-maker of a household are separated so one respondent does not feel obligated to answer the question the way their counterpart would want them to answer. Respondents may also have a hard time recalling events, and therefore may not accurately remember what actually happened. This could pose as a real problem for questions asking respondents to recall the past 6 or 12 months or events that happened in the last cropping seasons since that is a long stretch of time to recall. Cost also plays a factor in regards to the questionnaires. It costs a great deal of time and money in administering these questionnaires as well as training the enumerators who conduct the interviews. This important aspect plays into how many questionnaires can be distributed because of course the more questionnaires distributed and completed, the more representative the sample is, but this may not be feasible due to the amount of resources needed to carry-out these interviews (Bryman 2012). It is also important to note that respondents taking the questionnaire have no stake in the study because they are not being paid nor receiving any benefits. Therefore, the WEAI is expecting a lot from the respondents by asking them to sit down and partake in an extensive and time-consuming interview.

Conclusion

Due to these inherent problems, there will always be a question of the reliability and validity of the WEAI. This is especially true since these respondents have no real investment in the study other than possible altruistic motives. However, the WEAI is striving to make these inherent problems minimal through the use of crosschecking answers regarding decision-making across different modules, Cronbach's Alpha, and cognitive testing.

5.2.2 Assessment of WEAI Pilots I and II Individual Questionnaires

Now that the reliability and validity of the individual questionnaires has been discussed, it is time to analyze pilot's I and II individual-level questionnaires and see how the 5DE and its indicators are captured as well as see how changes have been made from pilot I to pilot II. This comparison between pilots I and II was done in order to show how changes were made in order to address the difficulties the WEAI faced in the first pilot as well as what difficulties remain. As been stated, it is through these questionnaires that the data is derived, and therefore, an analysis of pilots I and II questionnaire is vital when discussing the effectiveness of the WEAI.

In order to better understand how changes were made to the structure of the WEAI from Pilots I to II, I have created a visual aid in the form of a table that shows the differences in sequence of the modules as well as the combination of modules from pilot I to pilot II individual-level questionnaire. An in depth assessment of each module and the changes that were made will follow.

Individual-Level Questionnaire Module Sequence	
Pilot I Modules	Pilot II Modules
Individual Identification	Individual Identification
Role in Household decision-making around production and income generation	Role in Household decision-making around production and income generation <i>*Income is now captured in this module</i>
Access to Productive Capital and Credit	Access to Productive Capital and Credit
Income	Motivation for Decision Making
Individual Leadership and Influence in the Community	Time Allocation
Time Allocation	Individual Leadership and Influence in the Community
Decision Making	

Individual Identification Module of Pilots I and II

The *Individual Identification* is meant to identify the household, primary respondents, the sex of the primary respondents and the type of household. It also asks questions regarding interview details such as the outcome of the interview and ability to be interviewed alone (Peterman, et al. 2012). These questions are crucial to the questionnaire process because it is very important, in order for the questionnaire to be answered honestly, the male and female primary respondent be separated during the interview so they have the ability to answer the questionnaire in a comfortable and private setting without his or her spouse's influence. It is also important that female respondents be interviewed by female enumerators, and that male respondents be interviewed male enumerators in order receive the most honest answers because being interviewed by someone of the same gender is more comfortable than being interviewed by someone of the opposite gender (Malapit, et al. 2013).

Role in the Household Decision Making Around Production and Income Generation Module of Pilots I and II

Role in the household decision-making around production and income generation is intended to provide insight about men's and women's relative roles in decision-making around income generating activities (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015). This module is comprised of yes or no questions as well as categorical questions. The categories in the first pilot are on a scale of 1 through 6 and the options for all the questions being asked for each activity are: 1 = No input, 2 = input into very few decisions, 3 = input into some decisions, 4 = input into most decisions, 5 = input to all decisions, and 6 = decision not made/not applicable and are used for each question (Peterman, et al. 2012). In pilot II, instead of having the same options to answer each of the questions, the category options change from question to question, which provides more information regarding agricultural activities. The first categorical question is, "When decisions are made regarding [activity], who is it that normally makes the decision?" The options to choose from are: 1 = self, 2 = spouse, 3 = other HH member, 4 = other non-HH member. The fourth question asks, "To what extent do you feel you can make your own personal decisions regarding [activity] if you wanted to?" The options to choose from are: 1 = not at all, 2 = small extent, 3 = medium extent, 4 = to a high extent. The third and fifth questions have the same options to choose from as in the first pilot (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015).

Module 2's wording of some questions has changed from pilot I to pilot II. Pilot I's questions are more simple and broad. For example, the yes or no question in pilot I is "Did you (singular) participate in [activity] in the past 12 months?" Pilot II is more specific asking, "Did you yourself participate in [activity] in the past 12 months (that is, during the last one/two cropping seasons, from [present month] last year to [present month] this year?" This question was changed in order to be made more specific because, according to Kovarik (2015), during cognitive testing it was found that when enumerator's asked if they participated in a certain activity in the past 12 months, 35% of people did not give a time period in the past 12 months, and instead gave a time period anywhere from 3 months to 18 months which was problematic because that is not capturing the time period that is being asked. As a result, the question was changed to include the specific time range of the last one/two cropping seasons as well as to include the present month of last year to the present month of this year in order for respondents to understand the time period that is being asked of them to recall and answer (Kovarik 2015). However, it is important to note that this question may still be hard to answer due to the long period of time that is being asked of the respondent to recall, and therefore responses may not be accurate.

Two questions were also added to module 2 in pilot II. The first question added to pilot II was, "When decisions are made regarding [activity], who is it that normally makes the decision?" The second question added was, "To what extent do you feel you can make your own personal decisions regarding [activity] if you wanted to?" (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015). Both of these questions are significant because it provides insight as to who is generally making the decisions regarding various agricultural activities as well as how the respondent feels about their ability to make decisions. These questions are crucial to the *input in productive decisions* indicator and can contribute greatly to the weight of its score. Therefore, the addition of these two questions may possibly change the weight of this indicator from pilot I to pilot II.

It was found in pilot II that the *Role in the Household Decision Making around Production and Income Generation* module was found to be effective in eliciting responses concerning the first indicator, *input in productive decisions*, of the *production* domain by asking yes or no questions regarding participation as well as the level of input the respondent had in different agricultural activities. Module 2 was also able to capture the *control over use of income* by asking questions regarding women's input and decisions on household expenditures and making decisions on salary or wages. By being able to capture this indicator through these questions, it was concluded that the *income* domain and indicator could also be captured within this module in hopes of saving time. Therefore, the *Income* module became a part of module 2. However, by capturing *income* through this module, there is risk of losing valuable information such as whether the respondent has his or her own money to spend on whatever they may choose or if they have any left over money to spend. This module was not effective in evoking responses on *autonomy in production*, in the first pilot. Therefore, a new module that consists a series of vignettes was developed in the second pilot, which will soon be discussed in the *Motivation for Decision-Making* module part of this section (Hoerner 2015).

Access to Productive Capital Module of Pilots I and II

Access to productive capital is intended to provide insight regarding men and women's access to capital or assets and their ability to control and use resources (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015). Module 3 part A is comprised of yes and no questions and categorical questions. The first pilot lists 14 different types of productive capital and asks 10 different questions regarding these types of productive capital, which mean respondents have to answer 140 questions. Of those questions, 8 out of 10 are categorical questions and have 10 options to choose from when answering those questions which are: 1 = self, 2 = spouse, 3 = self and spouse jointly, 4 = other household member, 5 = self and other household member, 6 = spouse and other household member, 7 = self and other outside people, 8 = spouse and other outside people, 9 = self, spouse, and other outside people, 10 = someone (or group of people) outside the household (Peterman, et al. 2012). Answering 140 questions in which a majority of them require the respondent to pick from 10 different options is exhausting, tedious, and could cause the respondent to lose focus, and according to Pew Research, respondents may have a hard time keeping more than 5 answer choices in mind (Pew Research). To address this problem, the second pilot is significantly shorter, and, instead, only

asks 4 questions about the 14 different types of productive capital. Of these questions 2 are yes or no, and 2 are categorical. The options to choose from the categorical questions are also shorter with only having 5 options to choose from: 1 = self, 2 = partner/spouse, 3 = other HH member, 4 = other non-HH member, 98 = not applicable. This shortening of Module 3 part A is intended to help the respondents stay focused, and to also make the questionnaire more time efficient (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015). However, there is a risk of losing valuable information by asking less questions, which should be kept in mind.

The other main difference between pilot 1 and 2 are not only the difference in the number of questions, but also the re-phrasing of questions as well as the combining of questions from pilot 1. For the rephrasing of questions, the second pilot changes the definition of ownership from “who owns *most*” to “do you own *any*”. The rephrasing of this question is significant because it captures whether or not the respondent has ownership over any assets, whereas the original question only identifies who owns most which may not be the respondent, and therefore provides no account of the respondents’ ownership over assets. As for the combining of questions, pilot II combined what was three separate questions regarding rights into one simplified question: “Who would you say can decide whether to sell, give away, mortgage or rent [item] most of the time?” This combination of questions happened because analysis of the original pilot data suggested rights are bundled together (Malapit 2015).

Module 3 Part B of pilot II added one yes or no question regarding hypothetical bargaining: “Would you or anyone in your household be able to take a loan or borrow cash/in-kind from [source] if wanted to?” This question sheds light on the household’s ability to get a loan or borrow money (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015). This is a critical question that needs to be answered because having the ability to take out a loan or borrow, as Sen explains in chapter 4, plays an important role in agency and opportunities for economic stability (Sen 1999).

After analyzing pilot II findings it was found in pilot II that the *Access to Productive Capital* module was found to be effective in eliciting responses regarding the first and second indicator (*ownership of assets* and *purchase, sale and transfer of assets*) of the *resources* domain by asking questions regarding the ownership of productive capital, who has the rights over productive capital and who can purchase productive capital. It was also successful in evoking responses regarding *access to and decisions on credit* by asking questions regarding the respondent's ability to have credit as well as make decisions over the credit (Malapit 2015).

Decision Making Module of Pilots I and II

The *Decision Making* module has been modified and renamed as *Motivation for Decision Making* and is now the fourth module. This module is intended to capture the *autonomy in production* indicator, and is designed to get additional information regarding decision-making. This indicator now has its own module because in the first pilot it was found that respondents found it difficult to understand the questions regarding autonomy in agricultural production. Therefore, as a solution, a new module, which consists only of short stories called vignettes, was developed in order to see how the respondent identifies with each short story. However data collected from vignettes should be used with caution as various issues may arise. One in particular is participants may initially provide socially desirable responses, which means their response to a story may not capture the reality of the respondents lives. As explained by Professors Brian Parkinson and Antony S.R. Manstead (1993) of Oxford University, vignette data can only be understood within the substance of people's responses to particular scenarios and do not allow a general understanding of real life.

While the vignettes did improve respondents understanding, researchers and developers of the WEAI are still looking for other ways to better capture this indicator (Hoerner 2015). This indicator is important to capture because, as Kabeer's empowerment theory declares, autonomy is closely related to women's agency and when women do not have agency their empowerment is greatly affected (Kabeer 1999).

Time Allocation Module of Pilots I and II

What was sixth module in Pilot I, *Time Allocation*, is now fifth module in Pilot II.⁹ The purpose of this module is to provide insight about how men and women's time is spent (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015). In both the first and second pilot, respondents were asked to log the amount of time spent on 24 activities within the past 24 hours in 15-minute intervals. In the second pilot, respondents were given an additional section that asked them to log the amount of time spent on only 12 work activities and to record the number of hours spent on these activities within the past 7 days. The 7-day recall was added in addition to the 24-hour recall in order to address the problem in the first pilot, which was the 24-hour recall not being representative of a person's normal day. Not only were respondents asked to record their hours, but they were asked follow-up questions such as "Did you spend a usual amount of time on [activity] in the last 7 days?" If respondents answered "no" they were then asked, "Since last week was not usual, within the last 6 months how much time do you usually spend on [activity] per week?" (Malapit 2015). However, the problem with this question is the amount of time being asked to recall. Asking a respondent to recollect six months of events is difficult and daunting, and therefore answers given may not be accurate.

Another serious problem that should be regarded is the time of year when the individual-level questionnaire is being implemented. While the WEAI teams takes several factors into account when deciding to implement the questionnaires such as rain, harvests, hungry seasons, and other country-specific events that could bias the results (Ramzan 2015), the time indicator may have trouble truly capturing this indicator regardless of these factors. For example, agriculture is an activity where work requirements vary greatly throughout the year, and this poses as a serious challenge in collecting data on this domain. While this issue is attempted to be addressed by asking "Since the last week was not usual, within the last six months how much time do you usually spend on [activity] per week?" once again the issue of accurately recalling the past six months arises. Not only does this question ask to recall the past six months on 12 different agricultural activities, it asks for the amount of hours spent on each activity which may not be reasonable or possible to answer accurately.

⁹ An explanation as to why the ordering of the *Time* and *Leadership* modules changed has not yet been published.

The main difference between the first and second pilot are questions regarding the respondents' satisfaction of their time allocation. In the first pilot, there was an entire section dedicated to this that asked respondents 10 questions regarding respondents satisfaction of how their time is spent on a scale of 1 to 10: 1 = not satisfied; 5 = not satisfied or dissatisfied; 10 = very satisfied (Peterman, et al. 2012). In the second pilot, this section is composed of just one question asking the respondents on a scale of 1 to 10 how satisfied they are with the time they have to themselves to do things they enjoy (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015). However, by only asking one question, the WEAI risks the validity of the *leisure* indicator because it does not go into enough detail about their leisure time and activities and therefore may not effectively capture this indicator. It also perpetuates women's adapted expectations of leisure time because the women respondents are giving their honest answer, not knowing that their expectations of leisure activities have been adapted and constructed by social norms, and the questionnaire therefore does not address or resolve this issue.

After analyzing pilot II findings it was found that the *Time Allocation* module was effective in eliciting responses regarding the *workload* indicator of the *time* domain. By asking respondents to recall their past 7-days and the number of hours spent on each activity as well as asking them how their past 24-hours was spent in 15-minute intervals, a detailed description of what their day is like and how much time they spend on their work is given. However, whether or not this detailed description is correct and actually representative of the respondents past day/week should be questioned since agricultural activities vary depending what part of the cropping season it is. What researchers have found is that *time allocation* is a major constraint to women's empowerment (Malapit 2015). What perhaps is most telling of this finding can be found by taking a look at the *leisure* indicator and how, as discussed in chapter 4, Kabeer's reference to "choosing not to choose" and Bourdieu's (1977) notion of *doxa* comes into play because it was found that the leisure indicator has not been useful for analyses because of women's adaptive expectations which means women's expectations of leisure time has been tailored to what is possible in their circumstances and what is habitual in their society, and therefore have lowered their expectations.

Individual Leadership and Influence in the Community Module of Pilots I and II

The *Individual Leadership and Influence in the Community* module was the fifth module in the first pilot and is now the sixth module in the second pilot. This module is intended to capture men's and women's potential for leadership and influence in the communities where they live. In the first pilot, there are two different sets of questions: the first set of questions asks about the respondents feelings about their ability to make change in the community, if respondents feel comfortable speaking in public, if in the past 12 months have they contributed to their community by donating money or providing help, and asks them where on a 9 step ladder, in which the first step means they have no influence, what step they would be on and also provides a picture of the ladder. The second set of questions inquires whether respondents belong to a group and lists 11 different types of groups and asks them if they have (or ever had) a leadership position, how much input they have in making group decision, if it is a single sex group and how often they attend meetings (Peterman, et al. 2012). In the second pilot the questions are broader and less questions are asked. The first set of questions is simplified and only asks two questions regarding speaking in public; the second set regarding group membership lists the same types of groups, but only asks two questions regarding group membership: are any of the groups listed in the respondents community, and are they a member in any of these groups (International Food Policy Research Institute; Data Analysis and Technical Assistance 2015). This module was simplified and made more broad because it was found in the first pilot that many respondents found the questions regarding leadership to be controversial and a sensitive subject (Malapit 2015). However, by only asking two questions about *speaking in public*, the WEAI is unable to truly capture this indicator, and therefore more insight as to why this is such a sensitive topic needs to be addressed so more questions can be asked accordingly.

After analyzing pilot II findings, it was found that the *Individual Leadership and Influence in the Community* module was effective in capturing the first indicator of the *leadership* domain, which is *group membership*. By listing various types of groups as well as asking more broad and simple questions, this indicator was able to provide insight as to which type of groups women are members. However, the *speaking in public* indicator did not field well due to the controversy that surrounded this indicator, and was therefore unable to capture it. Not being able to capture this indicator is problematic because having the ability to speak up in public and have influence over change is crucial to women's empowerment because, as Sen states in chapter 4, when women have the agency to have public discussion, they can have an impact on development (Sen 1999). Therefore, further revisions and changes must be made to this part of the questionnaire so problems regarding speaking in public can be addressed.

Conclusion

The changes made from pilots I to II of the individual questionnaire stemmed both from the cognitive testing as well as the feedback that was given regarding the first pilot. It appears that these changes were able to address some of the issues from the first pilot yet challenges still remain such as failing to capture 3 important indicators. Therefore, further revisions to the WEAI must be considered.

5.2.3 WEAI Pilot 1 and II Findings in Bangladesh and Uganda

When assessing the effectiveness of the WEAI, a brief overview of the data of these two pilots is necessary. By looking at WEAI pilots I and II, it is possible see how respondents responded, or in many cases, did not respond to the questionnaires, and to see where results varied between the two pilots. First there will be a presentation of findings and discussion for the first WEAI pilot in Bangladesh and Uganda, and then a second presentation of findings for the second WEAI pilot in these two countries will be given.

WEAI Pilot I findings for Bangladesh and Uganda

Bangladesh

The first pilot in Bangladesh was conducted in the south and southwestern region of Bangladesh in the Barguna, Jessore, Khulna Madaripur and Patuakhali districts where 338 men and 436 women (774 respondents total) were observed and were administered a questionnaire with 404 variables. It was found that 61% of women piloted in these areas were disempowered and their average inadequacy score was 41.6%. Accordingly, women's censored headcount (M_0) is 61% (disempowered headcount) x 41.6% (average inadequacy score) = 0.254, and the 5DE = 1 - 0.254 = 0.746. In order to calculate the GPI score, we must look at the percentage of women with no gender parity as well as the empowerment gap. In piloted areas it was found that 40.2% of women were less empowered than men and had no gender parity (H_{GPI}) and the average empowerment gap (I_{GPI}) was 25.2%. Therefore, to get the GPI score we must calculate $1 - (40.2\% \times 25.2\%) = 0.899$. Finally, to get Bangladesh's pilot WEAI score calculate $0.9(0.746) + 0.1(0.899) = 0.761$ which is a moderate WEAI score (Alkire, et al. 2012b). However, in order to see where men and women are disempowered, there must be a decomposition of the 5DE and its indicators.

While the GPI, 5DE and WEAI score are important, they are not very telling of where women are disempowered or empowered, and therefore there must be a decomposition each dimension and indicator in order to see where women lack empowerment. To do this, we refer to the equations discussed in chapter 3 to decompose each dimension and indicator: $M_0_{population} = w_1CH_1 + w_2CH_2 \dots w_{10}CH_{10}$ and $M_0 = w_dCH_D / M_0_{population}$ and then calculate the contribution percentage with $M_0 = w_dCH_D / M_0_{population}$. For a decomposition of each dimension and indicator and its percentage contribution please see Table 2 below:

Statistics	Production		Resources		Income	Leadership		Time		
	Input in productive decisions	Autonomy in production	Ownership of assets	Purchase, sale, or transfer of assets	Access to and decisions on credit	Control over use of income	Group member	Speaking in public	Workload	Leisure
Women										
Censored headcount	0.259	0.053	0.092	0.280	0.450	0.248	0.491	0.284	0.147	0.259
% Contribution	10.2%	2.1%	2.4%	7.4%	11.8%	19.5%	19.4%	11.2%	5.8%	10.2%
Contribution	0.026	0.005	0.006	0.019	0.030	0.050	0.049	0.028	0.015	0.026
% Contribution by dimension	12.3%		21.6%		19.5%		30.6%		16.0%	
Men										
Censored headcount	0.083	0.024	0.053	0.201	0.456	0.027	0.494	0.399	0.225	0.263
% Contribution	4.1%	1.2%	1.8%	6.7%	15.1%	2.6%	24.5%	19.8%	11.2%	13.1%
Contribution	0.008	0.002	0.004	0.013	0.030	0.005	0.049	0.040	0.022	0.026
% Contribution by dimension	5.3%		23.5%		2.6%		44.3%		24.2%	

Table 2 from Alkire, S.; R. Meinzen-Dick; A. Peterman, A. Quisumbing; G. Seymour; A. Vaz. 2012. "The Women's Empower in Agriculture Index Discussion Paper." December 2012.

This table shows how much (in terms of percentage) each indicator and domain contributes to women and men's disempowerment. To calculate the contribution percentage of each domain, simply add the contribution percentage of each domain's indicators together. For example, *group membership* accounts for 19.4% of women's disempowerment and *speaking in public* accounts for 11.2% of women's disempowerment, which means the *leadership* domain contributes 30.6% to women's disempowerment. Men who were surveyed are also disempowered in leadership in which this indicator contributes 44.3% to their disempowerment, which means that this indicator must improve for both women and men in Bangladesh. However, men have very little disempowerment in *production* and *income* compared to their women counterparts (Alkire, et al. 2012b). By being able to break down each indicator it provides useful information regarding where women lack empowerment, which can potentially be used as a guidance tool in creating and revising programs that focus on gender parity and women's empowerment in agriculture.

While these findings are very insightful and provide important information, the datasets showed an ample amount of missing data. Through the use of *SPSS Statistics* and analyzing patterns through multiple imputations it was found that 63.37% of the variables had 10% or more missing data. Most notably, the *Role in Household Decision Making around Production and Income* module where 12 out of 18 variables had missing data that ranged from 39% to 84%; the

Individual Leadership module where 66 out of 92 variables had missing responses that ranged from 81.4% to 99.9%; and *Access to Productive Capital module* where 129 out of 159 variables had missing responses that ranged from 20.9% to 99.1%, had the highest number of missing responses in the first pilot.¹⁰ After reaching-out to USAID for comment as to why there is an abundant amount of missing data, no response was received.

Uganda

The first Uganda pilot was administered in 5 different rural districts in the northern region of Amuru and a Kole, the central region of Luwero and Masaka, and the eastern region of Igang in which 335 women and 262 men (597 total) were observed through the individual questionnaire, which contained 401 variables. It was found that 56.7% of women were disempowered and the average inadequacy score was 37.2 %. Accordingly, women's censored headcount (M_0) is 56.7% (disempowered headcount) x 37.2% (average inadequacy score) = 0.211, and the 5DE = 1 - 0.211 = 0.789. In order to calculate the GPI score, we must look at the percentage of women with no gender parity as well as the empowerment gap. In piloted areas it was found that 45.6% of women were less empowered than men and had no gender parity (H_{GPI}) and the average empowerment gap (I_{GPI}) was 22.4%. Therefore, to get the GPI score we must calculate $1 - (45.6\% \times 22.4\%) = 0.898$. Finally, to get Uganda's pilot WEAI score calculate $0.9(.789) + 0.1(.898) = 0.800$ which is a fairly high WEAI score (Alkire, et al. 2012b). However, as stated before, there must be a decomposition of the 5DE and its indicators in order to see where men and women are disempowered.

¹⁰ Please see Appendix F for Bangladesh Pilot I Missing Values Summary for all missing values.

As discussed above, the GPI, 5DE and WEAI score are not very telling of how women are disempowered or empowered, and this is where the decomposition of each dimension and indicator become a vital part in seeing where women lack empowerment. For Uganda the decomposition of each dimension and indicator is shown in Table 3 below:

Statistics	Production		Resources			Income	Leadership		Time	
	Input in productive decisions	Autonomy in production	Ownership of assets	Purchase, sale, or transfer of assets	Access to and decisions on credit	Control over use of income	Group member	Speaking in public	Work burden	Leisure time
Women										
Censored headcount	0.060	0.131	0.104	0.140	0.487	0.206	0.319	0.146	0.307	0.248
% Contribution	2.8%	6.2%	3.3%	4.4%	15.4%	19.5%	15.1%	6.9%	14.6%	11.7%
Contribution	0.006	0.013	0.007	0.009	0.032	0.041	0.032	0.015	0.031	0.025
% Contribution by dimension	9.0%		23.1%			19.5%	22.1%		26.3%	
Men										
Censored headcount	0.042	0.225	0.011	0.053	0.309	0.084	0.218	0.038	0.126	0.149
% Contribution	3.5%	18.5%	0.6%	2.9%	17.0%	13.8%	17.9%	3.1%	10.4%	12.3%
Contribution	0.004	0.023	0.001	0.004	0.021	0.017	0.022	0.004	0.013	0.015
% Contribution by dimension	22.0%		20.5%			13.8%	21.0%		22.6%	

Table 3 from Alkire, S.; R. Meinzen-Dick; A. Peterman, A. Quisumbing; G. Seymour; A. Vaz. 2012. "The Women's Empower in Agriculture Index Discussion Paper." December 2012.

This table shows that the Ugandan women who were surveyed are most disempowered in the *time* domain in which it contributes to 26.3% of their disempowerment. The *resources* domain contributes 23.1% to their disempowerment. This table also shows how men are disempowered, particularly, in the *production* domain in which 22% contributes to their disempowerment as well as *time*, which contributes 22.6% to their disempowerment. However, one of the major disparities is the *use over income* in which 19.5% contributes to women's disempowerment and only 13.8% for men.

As was the case in Bangladesh, there was a substantial amount of missing data in the first pilot. It was found that 95.57% of the variables had 10% or more missing data. Modules with the most missing data is similar to that of Bangladesh: the *Role in household decision-making around production and income* module had 10 out of 18 question in which a range of 30.1% to 99.4% missing data; the *Access to Productive Capital* in which 113 out of 164 had a range of 25.8% to 99.5% missing data; and the *individual leadership in the community* in which 67 out of 92 questions had a range of 74.2%-100% missing data.¹¹ Like Bangladesh, a reason for the high amount of missing values has not been given.

WEAI Pilot II Results for Bangladesh and Uganda¹²

Bangladesh

The second pilot in Bangladesh was conducted in the same regions as the first pilot (Jessore, Khulna Madaripur and Patuakhali districts). In the second pilot, the amount of people observed was cut almost in half as 176 men and 226 women (402 respondents total) were observed and were administered a questionnaire with 306 variables. The 5DE score that has been calculated for the second pilot is 0.937 for men and 0.823 for women, and the GPI score for women which is 0.895 which makes the WEAI score for Bangladesh in the second pilot $(0.9(0.823) + 0.1(0.895)) = 0.830$. Compared to the pilot I results, there has been a significant increase in the WEAI score for Bangladesh. In particular, the 5DE score for women went from 0.746 to 0.823, which shows a significant increase. However, the GPI score has remained practically the same. This increase could stem from a variety of things such as the improvement of the questionnaires and respondents ability to better understand the questions, or it could actually be due to the impact of FTF programs as well as other changes that could have happened during this time period. However, due to the short amount of time between the two pilots, it is more than likely due to the changes of the WEAI.

¹¹ Please see Appendix G for Uganda Pilot I Missing Values Summary for all missing values.

¹² WEAI Pilot II reports are currently being written and have yet to be published. Therefore, findings are based on the published datasets. As a result the GPI, 5DE, and WEAI scores are subject to change as well as the number of observations that were observed due to editing.

Unfortunately, the disempowerment score, the average inadequacy score, and the women's censored headcount (M_0) have not yet been published for the second pilot, and therefore we cannot see how the 5DE and GPI was calculated as well as decompose each indicator to see where these women remain disempowered. However, by looking at the descriptive statistics of the domains and its indicators through cross tabulations it is possible to see where empowerment is lacking. Cross tabulations (also known as contingency tables) is a table depicting the relationship between two or more variables (Dietz and Kalof 2009).

To show how cross tabulations can show where women are lacking empowerment, I will refer to the WEAI Pilot II dataset of Bangladesh. In this dataset, we can do a cross tabulation of the relationship between the independent variable which is gender with the 10 individual level indicators which is the dependent variable. For each variable, the respondents are given a 0 if they have adequate achievements for that particular indicator, or a 1 if they have inadequate achievements for that particular indicator.

According to this dataset, there is a significant relationship between gender and *access to and decisions on credit*. Pearson's Chi-Square shows a significant relationship between these two variables as the p-value is 0%, which is less than 5%.¹³ It was found that 98 out of 175 (56%) women have inadequate achievements when it comes to this indicator where only 57 out of 173 (33%) men had inadequate achievements.¹⁴

¹³ Level of Significance Chosen is 5%.

¹⁴ Please see Appendix H for Cross Tabulations and Chi-Square Test regarding the relationship between *gender* and *access to and decisions on credit*.

Pearson's Chi-Square also shows a significant relationship between gender and speaking in public as the p-value is 0%. It was found that 74 out of 176 (42%) women had inadequate achievements in this indicator where only 33 out of 173 (19%) men were inadequate when it comes to speaking in public.¹⁵ Therefore, it is indicative that these two indicators are where women are most disempowered, which is similar to pilot I with the exception that men's disempowerment in speaking in public has decreased which could be due to the revisions made to the individual-level questionnaire.¹⁶

Just like the first pilot in Bangladesh, the second pilot had issues with missing values. It was found that 99.02% of the variables had 10% or more missing data, which is significantly higher than the first pilot and means that all the modules had trouble with missing values (with the exception of *Individual Identification* module). *Role in Household Decision Making around Production and Income* in which all variables in this module had a range of 11.3% to 51.7% missing values, *Access to Productive Capital* in which all variables in this module had a range of 11.3% to 100% missing values, *Motivation for Decision-Making* in which all the variables in this module had a range of 11.3% to 79.5% missing values, *Time Allocation* in which all the variables in this module had 11.3% missing values, and *Individual Leadership* in which all the variables in this module had a range of 11.3% to 99.3% missing values.¹⁷ Once again, reasons as to why missing values was high in the second pilot has not been giving, and a response to emails that have been sent still have yet to be received.

¹⁵ Please see Appendix I for Cross Tabulations and Chi-Square Test regarding the relationship between *gender* and *speaking in public*.

¹⁶ Please note that for both Bangladesh and Uganda the number of men and women observed differs from the total of men and women given an adequacy or inadequacy value. This is due to the lack of missing values of respondents, and therefore an adequacy or inadequacy value could not be given.

¹⁷ Please see Appendix J for Bangladesh Pilot II Missing Values Summary for all missing values.

Uganda

The second pilot in Uganda was also conducted in the same regions as the first pilot (Amuru, Kole, Luwero, Masaka, and Iganga districts). For the second pilot in Uganda 145 men and 193 women (338 respondents total) were observed and were administered a questionnaire with 305 variables. A 5DE score has been calculated which is 0.946 for men and 0.840 for women, and the GPI score for women which is 0.904 which makes the WEAI score for Uganda in the second pilot $0.9(0.840) + 0.1(0.904) = 0.846$. As was the case in Bangladesh, compared to the pilot I results, there has been a significant increase in the WEAI score for Uganda. In particular, the 5DE score for women went from 0.789 to 0.840, which shows a significant increase. There was also a slight increase in the GPI compared to the first pilot as the score went from 0.898 to 0.904. Just like Bangladesh, the second pilot shows an increase in women's empowerment, which is more than likely due to the changes made to the individual-level questionnaire.

Like Bangladesh, the disempowerment score, the average inadequacy score, and the women's censored headcount (M_0) have not yet been published for the second pilot, and therefore it is not possible to see how the 5DE and GPI was calculated as well as decompose each indicator to see where these women remain disempowered. However, cross tabulations showing the relationship between gender and the 10 different indicators can show where women are inadequate within these indicators. According to Pearson's Chi-Square, there is a significant relationship between gender and *workload* as the p-value is 0.3%, and 35% of women lack adequate achievements in this indicator where only 20% of men are inadequate.¹⁸ However, there are areas where both Ugandan women and men have inadequate achievements.¹⁹ One example of this can be seen in the *access to and decisions over credit* indicator. This indicator shows that this is an area where empowerment must increase as for both women and men as 41% of women and 38% of men have inadequate achievements. Another area where both men and women lack achievements is in the *leisure* indicator as 40% of women and 31% of men are inadequate in this area and are not

¹⁸ Please see Appendix K for Cross Tabulations and Chi-Square Test regarding the relationship between *gender* and *workload*.

¹⁹ Please see Appendix L for Cross Tabulations and Chi-Square Tests regarding inadequate achievements for both men and women in *access to and decisions over credit* and *leisure*.

satisfied with their leisure time.²⁰ These areas of disempowerment are similar to the first pilot results in Uganda with the exception of the leisure indicator, where women's dissatisfaction with leisure time has increased and men's has decreased, which could be a result of only having one question to capture this indicator.

The second pilot in Uganda once again had issues with missing values. It was found that 99.67% of the variables had 10% or more missing data, which is extremely discerning and means that all the modules (with the exception of *Individual Identification* module) struggled with missing responses. *Role in Household Decision Making around Production and Income* in which all variables in this module had a range of 19.6% to 68.5% missing values, *Access to Productive Capital* in which all variables in this module had a range of 20% to 100% missing values, *Motivation for Decision-Making* in which all variables had a range from 20% to 85.2% missing values, *Time Allocation* in which all variables in this module were missing 20.8% of its values, and *Individual Leadership* in which all the variables in this module had a range of 21% to 97.1% missing values.²¹ A reason as to why there are so many missing values has not been given.

Comparison of Countries

The WEAI is a tool designed to make cross-country comparisons amongst FTF countries, and see how they differ in the 5DE and the GPI. Comparability is deemed important to the WEAI because it will show how FTF countries are addressing the issue of women's disempowerment through different interventions and programs and ultimately be able to see what interventions are working and what interventions are not. It will allow FTF countries to learn from one another and assess what programs are working to address disempowerment. In the cases of Bangladesh and Uganda, *resources* and *leadership* were two of the main contributors of disempowerment for both countries. Therefore, these countries could prioritize these two areas and implement programs to improve women's empowerment in these two areas, and also look to each other for guidance. However, there are also striking differences. For example the first pilot shows that in Bangladesh, men appear to be just as disempowered as women, however, where they are disempowered differs. In Uganda, it is quite the opposite: men are more empowered than women

²⁰ As noted earlier, the results of the leisure indicator may not be accurate due to women's adapted preferences.

²¹ Please see Appendix M for Uganda Pilot II Missing Values Summary for all missing values.

in every domain. This shows how culture and geographical location could play an influential role in women's empowerment in agriculture.

Both Bangladesh and Uganda had a substantial amount of missing data, which can be problematic in measuring women's empowerment because these missing values presumably means that many individuals who participated in the questionnaire are missing at least one indicator, and therefore, many individuals responses will not be used in the aggregate WEAI score for each country. In the *WEAI Instructional Guide* it states, "We would normally drop any individual that is missing in any indicator...the reason is that you cannot make a deprivation score with different indicators for different people and then decompose it."(Malapit, et al., 22) In other words, only respondents who were able to answer enough questions for all 10 indicators will be used in the WEAI score. This makes it difficult to give a representative women's empowerment score in the piloted areas of Bangladesh and Uganda due to these dropped individuals.

5.2.4 Conclusion

On paper, the WEAI is a tool that is capable in capturing and measuring women's empowerment through domains and indicators that define and embody empowerment and are supported by various theories, individual questionnaires that evoke responses on these domains and indicators, and data that is produced from these questionnaires and show where women are empowered and disempowered in the form of a score. However, putting the WEAI pilots into practice has been challenging as the WEAI faces various obstacles: not all indicators are effectively captured through the individual-level questionnaires, the piloted individual-questionnaire has a systemic problem with missing responses, and pilot findings are indicative rather than representative. WEAI pilots I and II in Bangladesh and Uganda has shown what the WEAI is capable of doing, but the WEAI cannot be fully realized as an effective tool until these issues are addressed.

Ultimately, through the analysis of these pilot datasets, it has been concluded that the WEAI may be more of an effective tool in measuring disempowerment than it is at measuring empowerment. This conclusion has been made, because as discussed in chapter 3 and in this chapter regarding the notations to calculate the 5DE, the calculation of the WEAI highlights where women need to be empowered, and where they are lacking empowerment by decomposing each indicator and observing where women are inadequate. The GPI proves this to be true as well as it shows the disempowerment women face in agriculture compared to men. The WEAI does not necessarily measure how Feed the Future programs in particular influence women's empowerment as it is stated on the FTF's homepage regarding the WEAI. Instead, the WEAI initially highlights where women are disempowered and where programs need to be revised and where interventions need to be implemented in order to improve women's empowerment. However, once these changes are made to the programs, then the WEAI can possibly see how FTF programs had an impact women's empowerment by tracking the change in the WEAI score. However, like any cause and effect relationship, it is sometimes difficult to see if programs directly impact women's empowerment in agriculture or if there were other causes contributing to it.

5.3 How the WEAI can make FTF Partner Country Government's more Responsive in Improving Women's Empowerment in Agriculture

As discussed in chapter 4, Narayan's theory of empowerment is closely linked to holding institutions accountable for the expansion of assets and capabilities for those who are marginalized, and the WEAI and the data it provides can potentially be an effective tool in making FTF partner country's more responsive to women's empowerment in agriculture. Before the WEAI, there had been no measurement or index that calculated and measured women's empowerment in the agricultural sector, which means there was little data to help guide policies and programs that were gender conscious in this area nor was there an accountability mechanism. This lack of data and accountability can be viewed as a deterrent in terms of the development of a country (particularly in developing countries where agriculture is the main source of income for most families) since women play a vital role in the agricultural sector yet are very limited in their agency. It has been argued that accountability cannot be realized unless there is a measurement of performance, and the WEAI could be capable of doing just that. The WEAI examines FTF countries progress in women's empowerment in agriculture and also sheds

lights on the gaps where women's empowerment needs to improve. As the WEAI evolves and data from the questionnaires continue to be collected, the WEAI could become a useful tool in making FTF partner country governments more responsive in revising and designing agriculture programs and policies that are gender-conscious and will aim to improve women's empowerment.

As WEAI scores are produced for each FTF country via the data collected from the baseline, the mid-line and end-line surveys, the main idea and hope is that partners, contractors, and governments within each country will view their overall WEAI score, as well as the scores within the 5DE and GPI, and will hopefully want to improve the areas where women are lacking empowerment. As Hilary Clinton stated at the *Closing the Gender Gap* conference (2012) "Data not only measures progress, it inspires it. What gets measured gets done. Once you start measuring problems, people are more inclined to take action to fix them because nobody wants to end up at the bottom of a list of rankings." And possibly, once FTF countries see the gaps between men and women in these 5 domains as well as the disparity between men and women, they will want to decrease it by designing or revising programs so they are gender focused.

Bangladesh is an example where the government used the WEAI baseline reports to help focus and take responsibility for women's empowerment in agriculture. After receiving the baseline reports, IFPRI started working with Bangladesh's Ministry of Agriculture to turn its focus toward nutrition and women's empowerment. This resulted in the ANGeL project, which refers to *agriculture, nutrition and gender linkages*. The project's objective is to identify actions and investments in agriculture that can influence agricultural development for improved nutrition and women's empowerment. This project shows Bangladesh's commitment to improving nutrition and empowering women in agriculture (Keaton 2015). Not only did Bangladesh's Ministry of Agriculture make changes to ensure women's empowerment in agriculture through programs like the ANGeL project, but USAID-Bangladesh provided \$6 million U.S. dollars to fund new programs, such as ANGeL, that aim to improve women's empowerment in the 5DE (Malapit 2014).

Indexes such as the WEAI are critical to advancing gender equality and social development because it provides information regarding where change needs to be established. As Hilary Clinton stated at the *Closing the Gender Data Gap* conference (2012) “If we’re serious about narrowing the gender gap and helping more girls and women, then we must get serious about gathering and analyzing data that tell the tale.” In order to close the gender gap reliable data that provides insightful information that can guide FTF countries’ investments is necessary, and the WEAI could potentially provide that information in a detailed manner. The 5DE and its indicators are the first of its kind to highlight areas of disempowerment with an actual score. Not only does this score provide a FTF country ranking in women’s empowerment in agriculture, but also it allows countries to track their change, which is vital in order to see how programs are progressing and holding FTF countries responsible for women’s empowerment.

5.3.1 Conclusion

Accountability mechanisms are a vital resource when trying to bring about change within a society. While the WEAI is tool that can potentially be used as an accountability mechanism in making FTF country governments more responsive to women’s empowerment in agriculture, the issues that were acknowledged in the previous section (5.2) must be resolved. If these challenges can be addressed and fixed, the WEAI could be vital tool in addressing gender gaps and women’s empowerment with agriculture.

5.4 How the WEAI can be adapted in different circumstances

While the WEAI is still a relatively new measurement, it has spurred the development of different ways to measure women’s empowerment in agriculture. The WEAI is a tool that has inspired USAID, IFPRI, OPHI and other organizations to develop different versions of the WEAI that is user-friendly as well as more tailored to specific project needs in order to capture women’s empowerment in any organization’s agricultural programs. While the original WEAI is more standardized and comprehensive, other versions of the WEAI are more customized and have their own advantages. The Abbreviated Women’s Empowerment in Agriculture Index (A-WEAI), the project-level Women’s Empowerment in Agriculture (pro-WEAI), and ad hoc adaptations of the WEAI are three types of women’s empowerment measurements that were inspired by the WEAI and shows the WEAI’s versatility and how it can spark new measurements of women’s empowerment in agriculture.

5.4.1 The A-WEAI

After a thorough analysis of the WEAI Pilot II findings and comparing it to the baseline data, researchers of USAID, IFPRI, and OPHI found that there was still an acute need to make the WEAI more affordable and more time efficient so it could be more accessible for organizations. Therefore, USAID and IFPRI developed a new version of the WEAI to address these concerns. This new version of the WEAI is called the A-WEAI, which is an abbreviated and condensed version of the original WEAI that still covers the 5DE. The A-WEAI is not meant to replace the original WEAI, but is instead to be used as a lighter alternative to the original WEAI (Hoerner 2015). It is important to note that A-WEAI simply drops the three indicators that were difficult to capture in the original WEAI. Therefore, this version could be viewed as a possible solution to the original WEAI.

While the A-WEAI keeps the 5DE, it only uses 6 of the 10 indicators.²² The A-WEAI's indicators are: input in productive decisions; ownership of assets; access to and decisions on credit; control over the use of income; group membership and workload. Autonomy in production; speaking in public; and leisure were dropped due to the lack of success in capturing these indicators as well as to make the A-WEAI shortened as mentioned before (ibid).²³

Due to the dropping of these 4 indicators, the A-WEAI data can only be compared to the original WEAI if it is restricted to these six indicators. The A-WEAI is not as comprehensive as the original WEAI and cannot give the full picture of women's empowerment in the agricultural sector. However, the A-WEAI is a good alternative that does not require as many resources to collect (ibid).

²² The *purchase, sale transfer* of assets was combined with *ownership of assets* as noted earlier in the chapter.

²³ Please refer to *Assessment of WEAI Pilots I and II Individual Questionnaires* section of this chapter for explanation as to why these indicators were dropped from the A-WEAI.

5.4.2 Pro-WEAI

There is also another version of the WEAI that is currently being developed called the project level WEAI (pro-WEAI). According to Farzana Ramzan of USAID, a lot of organizations in the broader development community, as well as Feed the Future's implementing partners that collected the WEAI on their own at a project level, were adapting the questionnaires and were changing and tailoring the WEAI according to their project's needs: keeping some components but revising others to their specific intervention. As a result, FTF and IFPRI has teamed up with the Bill and Melinda Gates Fund to fund the pro-WEAI in which project-level indicators will be developed to measure women's empowerment and to identify the strategies that projects can use to empower women in agriculture. For example, if an organization's focus is on livestock, the pro-WEAI will add specialized modules concerning livestock, which will ultimately evoke responses on women's empowerment regarding livestock (Ramzan 2015).

While the A-WEAI is the starting point for the pro-WEAI, the pro-WEAI is still under development so additional domains may be added, and additional indicators will be added depending on the project. What is advantageous about the pro-WEAI is that organizations are able to choose what indicators to use and what indicators to add based on their specific project, and weights, cut-offs and aggregations methods can be modified within a specialized methodology, which has yet to be determined by the WEAI. Also, project relevant modules will be comparable within groups of projects working with similar issues, and there will be some standardized components that will be comparable across all projects using the pro-WEAI (IFPRI 2015).

5.4.3 Ad Hoc WEAI Adaptations

The WEAI is a tool that can also be adapted independently by different organizations. Organizations can use the WEAI as a starting point to measure their projects women's empowerment in agriculture programs. Organizations can use any combination of the domains and indicators as they see fit. This also means that the weight, cut-offs, and aggregations methods as well as the modules and questions being used in the questionnaires are solely established by the organization. However, it is important to note that ad hoc adaptations of the WEAI cannot be compared to other organizations, and cannot call their adaptation of the WEAI the "WEAI", but can state that it was inspired by the WEAI (ibid).

One example of an ad hoc WEAI is CARE's Pathway program in Bangladesh, Ghana, India, Malawi, Mali and Tanzania. CARE's Pathways program objective is to increase the productivity and the empowerment of women working in agriculture. More specifically, Pathway's goals are increasing the productivity and empowerment of 50,000 poor, women farmers in sustainable and equitable systems; enhance the scale of high-quality women responsive agricultural programming; and influence policy dialog on women and agriculture. The Pathway's program uses an adaptation of the WEAI in order to track and monitor its programs called *Women in Agriculture Index*. This tool uses many of the dimensions of the WEAI, but also incorporates factors such as holistic empowerment, which includes women's mobility, women's political participations, and self-confidence. This tool has also adjusted indicator thresholds by country. Through this tailored version of the WEAI, the Pathways program was able to identify the areas where interventions need to be implemented (CARE 2016).

5.4.4 Conclusion

In conclusion, the WEAI has inspired researchers and organizations to develop variations of the WEAI measurement in order to better suit different organization's needs. These new WEAI measurements show that they are not only in demand, but also show how organizations are making women's empowerment a significant part in their agricultural programs. It is promising to see how FTF countries, as well as other organizations, are making the measurement of women's empowerment an integral part of their projects and are tracking the change of women's empowerment.

However, it may be pre-mature to develop these different versions of the WEAI. Since the original WEAI has various problems that still need to be addressed, it is surprising that these other versions would be developed. Although, from a different perspective, these different versions could be viewed as resolutions to the original WEAI and may be more effective in capturing women's empowerment in agriculture since these versions, such as the A-WEAI, simply drop the indicators that were not fielding well. Therefore, possibly using these adapted versions of the WEAI may be more effective in the future.

Chapter 6: Conclusions and Suggestions

6.1 Introduction

While the WEAI is a tool that has pioneered a new way to measure women's empowerment in agriculture, there are challenges that must be resolved. The obstacles that the WEAI faces must be addressed in order for it to be a more effective tool in truly capturing women's empowerment in agriculture. Suggestions to address some of the major issues of the WEAI that were discussed in chapters 3, 4 and chapter 5 will be expressed.

6.2 Suggestions to Address the Limitations and Important Missing Aspects of the WEAI

As discussed in chapter 3 and chapter 4, the limitations of the WEAI and the empowerment theories presented showed what important aspects are missing from both the design of the WEAI and its individual-level questionnaire. Limitations such as only interviewing the head-female of a household results in the inability to capture those who could be even more disempowered. Additionally, while the first pilot lightly touched upon access to information and services as well as accountability, any sort of reference to these two characteristics were dropped from the second pilot. Suggestions on how to possibly address these limitations and implement the two aspects of empowerment previously mentioned will be explained.

6.2.1 Interviewing Women who are not the Head Female of a Household

While it may seem most practical and feasible to interview only the head female of a household (since interviewing all the women in a household would be time-consuming and expensive) it ultimately results in data gaps amongst women who are not the head of a household. Consequently, there is an entire population of women not being captured or represented in the WEAI data collection, and instead, only captures one demographic of women's empowerment in agriculture. One possible way to address this issue would be to consider randomly selecting one woman, at least 18 years of age, within a household to take the survey. This would be possible since the household survey (mentioned in chapter 3) asks to list all the members of a household. This would then allow to collect data on women who are not the primary decision-maker. However, one possible major drawback to interviewing women who are not the head of a household is that they would be not be able to be compared to their male counterpart which is an

important aspect of the WEAI. However, this would be no different than interviewing female-headed households without a male counterpart, which the WEAI already does. Also, it would still be possible to assign certain households in conducting only head-female and head-male interviews.

6.2.2 Access to Information and Services

As explained in chapter 4, access to information and services is vital to women's empowerment, especially when it comes to agriculture since new methods of farming are always emerging. Therefore, access to information and extension services is vital. In order to capture this, access to information and services should be considered as an indicator under the *Resources* domain. A section similar to that of the first pilot called *Access to Agriculture/Livestock/Fisheries extension* of the third module could be implemented in order to capture this new indicator. Questions regarding how information is accessed, if they have the ability to utilize an extension service, and if they feel up-to-date on the latest farming methods and technology could be asked.

6.2.3 Accountability

Holding institutions accountable at both the national and local level is an aspect of empowerment that should be strongly considered when it comes to being empowered. Therefore, a section regarding accountability, which could go under the *Leadership* module, could be added. While this was lightly addressed in the first pilot, the second pilot has no regard for accountability. This issue can be addressed by asking more questions about respondents' ability to protest, if they have an outlet to complain to government officials, and whether or not respondents feel comfortable in participating in public forums over today's contested issues. This aspect of accountability could have a profound impact on one's empowerment in the leadership domain. However, as stated before, questions regarding leadership are sensitive, making certain parts of the leadership domain difficult. This issue will be addressed below.

6.3 Suggestions for Effectively Capturing the Indicators of the 5DE

Indicators are a crucial component to any effective index of measurement. Therefore, the indicators that are used in the WEAI must not only be able to encompass and exude the qualities of women's empowerment in agriculture, but it must also be able to capture these indicators effectively. However, as noted before, the WEAI has had trouble in capturing 3 of the 10 indicators: *autonomy in production; speaking in public; and leisure*. Each of these indicators is vital to each of the domains to which these indicators belong, and therefore, there must be solutions to capture them.

6.3.1 Autonomy in Production

The *autonomy in production* indicator questions has been inherently difficult for respondents to understand which is perhaps why this indicator has not been effectively captured. While the vignettes helped respondents to better comprehend and understand their role in decision-making in agricultural production, there is another method that can assist in capturing this indicator such as developing country specific-questions. While enumerators are trained to use country-specific examples to the questions, developing country-specific questions may be more helpful. For example, asking Bangladeshi women if they are in possession of an Agriculture Input Assistance Card (AIAC), which is a card farmers in Bangladesh receive in order to have access to government subsidies for things such a diesel for farm equipment and fertilizer, can be very telling of a woman's autonomy in decision-making over agricultural production because if she does not possess this card, she will not be able to have access to the inputs she needs. Therefore, she could possibly have little say in what crops to plant because she simply does not have the resources (DHKA 2011). While developing country specific data in the individual-level questionnaires will initially require a lot of work and will be time intensive, it will help respondents more accurately answer questions regarding this indicator.

6.3.2 Speaking in Public

The *speaking in public* indicator was difficult to capture due to the sensitivity surrounding this indicator. Even when the number of questions were reduced and made broader, researchers still had a hard-time capturing this indicator since there was not enough substantial data to analyze and make any conclusions about speaking in public (Hoerner 2015). Asking questions that are broad and the same for each country is generic and will not address why public speaking is a sensitive topic. In order to better capture this indicator, the researchers, developers, and enumerators must identify *why* speaking in public is such a sensitive topic in each of the FTF countries. Therefore, having a cultural understanding of public speaking in each country and then constructing questions or examples that are culturally conscious must be developed. For example, in Bangladesh it has been found that Bangladeshi men and women are sensitive to public criticism, and therefore may resist and avoid speaking in public due to this fear (Global Affairs Canada 2014). By being aware of these cultural characteristics, the researchers, developers and enumerators will better be able to create questions and examples in order to have a more in-depth understanding of the *speaking in public* indicator.

6.3.3 Leisure

The *leisure* indicator was hard to capture due to women's adapted expectations of leisure time and activities (Hoerner 2015). Therefore, the researchers of the WEAI believed that the data collected for this indicator was not necessarily valid. Another problem with this indicator is that leisure time and activities are subjective rather than objective, and therefore listing a pre-determined list of activities as leisure may be problematic since people value them differently. To address these problems in the second pilot, only one question was asked in order to capture *leisure* in which respondents are asked to rate their satisfaction of leisure time on a scale from 1 to 10 (1 being not satisfied and 10 being very satisfied). As noted in chapter 5, not only does this not provide any substantial data but it also perpetuates the adapted expectations of leisure time. Instead, questions about leisure activities need to address women's adapted expectations in order to truly reveal whether or not women are empowered in this indicator. Yes or no questions such as "Do you feel you have the same amount of leisure time as your counter-part" could reveal a lot about adapted expectations time. If the respondent answers "no" a follow-up question asking, "What factors contribute to the difference in the amount of leisure time between you and your counterpart" could be asked in order to get a better understanding as to why they have different

amounts of leisure time. To prevent this from being an open-ended question, categories such as: domestic chores, longer working hours outside the home, a combination of both, or other could be chosen from. Then if the respondent chooses “other” another follow-up question could be asked in which the enumerator would have to write what the other reason is. While this is time consuming it may be better fit to capturing *leisure*.

6.4 Missing Responses yielding Indicative Results instead of Representative Results

As discussed in chapter 5, both pilots I and II of the individual-level questionnaire in Bangladesh and Uganda had an ample amount of missing data, which resulted in indicative results rather than representative. While indicative results can point out and assume where women’s empowerment is being challenged, it does not necessarily reflect the population that is being surveyed. Therefore, in order to have representative results missing responses must be reduced. Because the reason as to why there is an abundant missing data has not been given, it is difficult to propose an exact solution. However, some suggestions will be given to help reduce the amount of missing responses.

Missing responses can be attributed to both the enumerator or the respondent depending on the context (de Leeuw, Hoz and Huisman 163-165). Since the WEAI is a face-to-face interview in which the enumerator has control over the questionnaire process, it is likely the enumerator can be held accountable for the missing responses since “N/A” or “don’t know” options can be filled in for questions respondents do not understand or answer. The module that struggled the most with missing responses was *Access to Productive Capital and Credit*. This could possibly be because this module has the most questions and has an extensive list of categories to choose from and in order for WEAI data to be used each individual that is interviewed must not have any missing indicators. Therefore, enumerators may skip some of the questions of this module in order for the respondents to complete each indicator questions in other modules. However, each question being asked holds important value and contributes to each respondent’s empowerment score, and therefore should be answered in order to have the most accurate score that is possible. To avoid this problem, enumerators should be trained to allocate the amount of time they spend on each module. Enumerators should have an understanding of how long each module should approximately take to complete, and should also be trained to take an interview that has sidetracked and re-direct it to the interview, which may already be apart of their training, but

should be reinforced. It may also be beneficial to have a supervisor do random check-ins during interview processes in order to make sure enumerators are carrying-out the questionnaire properly. There is also the possibility that the enumerator illegibly wrote down a code answer, which is then marked as missing data. To avoid this, using computer assistance, such as a tablet, could help reduce this problem (ibid, 165)

6.5 Final Conclusions

Since the individual-level questionnaires have had a difficult time with respondents' comprehension of the questions, it may be more effective to develop it as a country-specific questionnaire. The suggestions for overcoming the indicator problems (section 6.3) would imply that these indicators would become country-specific. While there would be trade-offs, such as the inability to compare from country to country, and therefore lose the benefits of comparing that were listed in chapter 5, it will likely result in more accurate data since respondents will have a better understanding of the questions since they are tailored to their country. This may be especially true when capturing the *leadership* domain since the sensitivities to this topic may be cultural. Making the WEAI questionnaires country-specific will also make it a better accountability mechanism since the questions could possibly ask about certain agricultural policies and programs and how they are progressing.

There are also concessions in regards to designing and implementing a longer questionnaire design (pilot I) or a shorter questionnaire design (pilot II). While implementing a shorter questionnaire is more feasible and easier to conduct and collect data, the questions that are cut results in missing valuable data that could contribute greatly to the weight of an indicator and ultimately a domain. Therefore, researchers must choose carefully which questions to omit as well as consider bringing back some of the questions that were discussed in section 4.4 of chapter 4.

Another inference that has been made and was briefly discussed in section 5.4 of the previous chapter, is possibly implementing the adapted versions of the WEAI instead of the original WEAI itself. For example, the A-WEAI may be more practical to implement since it drops the three indicators that were not fielding well, and yet it is still able to capture women's empowerment in agriculture in an in-depth way.

In conclusion, the WEAI and its adaptations exhibit the importance of measuring women's empowerment in agriculture and how it could be possibly used as an accountability mechanism in the future. It also shows how different organizations are making women's empowerment a priority in their agricultural programs. By using the WEAI and other adaptations of it, FTF countries, as well as other organizations, will better be able to strategically design policies and programs that will empower women in areas where women lack empowerment as well as have a greater impact on food security and nutrition. However, in order for it to be truly effective, there must be solutions to the problems presented in this thesis. Nevertheless, the WEAI is an inspiring tool and it will be exciting to see what it is capable in doing in the years to come.

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Appendices

Appendix A - Interview Guide

Appendix B - Pilot Household-Level Questionnaire

Appendix C - Pilot Individual-Level Questionnaire

Appendix D - Pilot II Household-Level Questionnaire

Appendix E - Pilot II Individual-Level Questionnaire

Appendix F - Bangladesh Pilot I Missing Values Summary

Appendix G - Uganda Pilot I Missing Values Summary

Appendix H - WEAI Pilot II Bangladesh Crosstab and Chi-Square Tests for Gender and Access to and Decisions on Credit

Appendix I - Bangladesh Crosstab and Chi-Square Tests for Gender and Speaking in Public

Appendix J - Bangladesh Pilot II Missing Values Summary

Appendix K - Uganda Cross Tabulations for relationship between gender and workload

Appendix L - Uganda Cross Tabulations regarding inadequate achievements for both men and women

Appendix M - Uganda Pilot II Missing Values Summary

Appendix A

Interview guide

Interviews will be semi-structured. Interviewees will be professionals/employees of USAid's Feed the Future Program as well as researchers of WEAI. Semi-structured interviews will be conducted via Skype. As noted in my information letter, the interviews will be recorded.

What is the name of your employer and what is your position?

How did WEAI get started?

Why was WEAI launched in Bangladesh, Guatemala and Uganda?

What is the Alkire Foster Method and why was this method chosen for the WEAI?

How do you determine if Feed the Future Programs has directly or indirectly impacted women's empowerment?

Why were the current 5 domains of women empowerment chosen for the WEAI?

WEAI has been criticized for its reductionist approach. What would be your response to those who believe this?

What is currently being done to improve the WEAI?

Appendix B

Pilot Testing of Agriculture Index Bangladesh: Household Level Questionnaire

Confidential: To be used
Only for research purposes

MODULE A. HOUSEHOLD IDENTIFICATION International Food Policy Research Institute (IFPRI) & Data Analysis and Technical Assistance Limited (DATA)

Household Identification	Code	Interview details	Code
A01. Household Identification:.....	[][]	A13. Start time of interview (hh:mm=> write in 24 hr time format)	[][] : [][]
A02. Census number:.....	[][][]	A14. End time of interview (hh:mm=> write in 24 hr time format)	[][] : [][][]
A03. Village (enter code from code list):.....	[][][]	A15. Name/code of enumerator:.....	[][]
A04. Union (enter code from code list):.....	[][]	A16. Date of first visit (dd/mm/yyyy):.....	[][] / [][] / 2011
A05. Thana / upazila (enter code from code list):.....	[][]	A17. Date of second visit (dd/mm/yyyy):.....	[][] / [][] / 2011
A06. District (enter code from code list):.....	[][]	A18. Reason for second visit (enter code from Code 5 ↓):.....	[][]
A07. Name of primary respondent (code from roster in Section B): Last, First:	[][] [][]	A19. Name/code of supervisor	[][]
A08. Type of household (enter code from Code 1 ↓):	[][]	A20. Outcome of interview (enter code from Code 6 ↓):.....	[][]
A09. Religion of the household head(enter code from Code 2 ↓):.....	[][]	A21. Date of checking:	[][] / [][] / 2011
A10. Main language of the household (enter code from Code 3 ↓):.....	[][]	xxx. Signature of supervisor:	
A11. Main ethnic group of the household (enter code from Code 4 ↓):.....	[][]	A22. Name/code data entry operator:	[][]
A12. Cell phone number:	[][][][] [][][][] [][][][] [][][][] [][][][] [][][][]	A23. Date of data entry:	[][] / [][] / 2011

Code list for Module A:

Code 1: Type of Household:	Code 2: Religion	Code 3: Language	Code 4: Ethnic group	Code 5: Reason for second visit	Code 6: Outcome of interview
Male and Female adult 1 Female, no Male adult 2 Male, no Female adult 3 No adult 4	Muslim 1 Hindu 2 Christian 3 Buddhist 4 Other (specify: _____) 5	Bangla 1 Hindi 2 Urdu 3 Tribal (specify _____) 4 Others (specify _____) 5	Bengali 1 Bihari 2 Tribal (specify) 3 Others (specify) 4	To complete some incomplete part 1 HH asked to come second time in half way of the interview 2 To recheck some information 3 Other (Specify _____) 4	Completed 1 Incomplete 2 Refused 3 Absent 4 Could not locate 5

Informed Consent for Pilot Testing of Agriculture Index

Informed Consent: Before beginning the interview, it is necessary to introduce the household to the survey and obtain their consent to participate. Make it clear to them that their participation in the survey is voluntary. Please read the following statement in the language of interview:

Thank you for the opportunity to speak with you. We are a research team from Data Analysis and Technical Assistance Limited (DATA) working in collaboration with the International Food Policy Research Institute (IFPRI). We are conducting a survey to learn about agriculture, food security and wellbeing of households in this area. You have been selected to participate in an interview which includes questions on topics such as your family background, dwelling characteristics, asset ownership and income earning activities. The survey includes both a section to be asked about the household generally, in addition to sections which will be asked to a primary adult male and female in your household if applicable. These questions in total will take approximately 1.5 hours to complete and your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or to 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 which will link these responses to you.

We will also interview other households in your community and in other parts of Bangladesh. After we collect all the information we will use the data to make a study about how various programs can be most helpful to the people in this area. Do you have any questions about the study or what I have said? If in the future you have any questions regarding study and the interview, or concerns or complaints we welcome you to contact DATA, by calling at (XX) XX – XXXX. In addition you can contact the head of Ethics Review at the International Food Policy Research Institute, at (+011) XX-XXX-XXX, x.xxx@xxx.org, www.ifpri.org. We will leave one copy of this form for you so that you will have record of this contact information and about the study.

Please ask the participant if they consent to the participation in the study (check one box):

Participant 1:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	Participant 2:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
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I _____, the enumerator responsible for the interview taking place on _____, 2011 certify that I have read the above statement to the participant and they have consented to the interview. I pledge to conduct this interview as indicated on instructions and inform my supervisor of any problems encountered during the interview process. If the household does not give consent to all of the data collection, stop the interview and inform your team leader. Team leaders will discuss the reason for this refusal and decide whether a partial data collection is possible for this household.

Consent form approved by IFPRI IRB on August 16, 2011.

Informed Consent for Pilot Testing of Agriculture Index

DUPLICATE: Enumerator: Tear out this page, and leave it with the household.

Informed Consent: Before beginning the interview, it is necessary to introduce the household to the survey and obtain their consent to participate. Make it clear to them that their participation in the survey is voluntary. Please read the following statement in the language of interview:

Thank you for the opportunity to speak with you. We are a research team from Data Analysis and Technical Assistance Limited (DATA) working in collaboration with the International Food Policy Research Institute (IFPRI). We are conducting a survey to learn about agriculture, food security and wellbeing of households in this area. You have been selected to participate in an interview which includes questions on topics such as your family background, dwelling characteristics, asset ownership and income earning activities. The survey includes both a section to be asked about the household generally, in addition to sections which will be asked to a primary adult male and female in your household if applicable. These questions in total will take approximately 1.5 hours to complete and your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or to 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 which will link these responses to you.

We will also interview other households in your community and in other parts of Bangladesh. After we collect all the information we will use the data to make a study about how various programs can be most helpful to the people in this area. Do you have any questions about the study or what I have said? If in the future you have any questions regarding study and the interview, or concerns or complaints we welcome you to contact DATA, by calling at (XX) XX – XXXX. In addition you can contact the head of Ethics Review at the International Food Policy Research Institute, (+01 1) XX-XXX-XXX, x.xxx@xxx.org, www.ifpri.org. We will leave one copy of this form for you so that you will have record of this contact information and about the study.

Please ask the participant if they consent to the participation in the study (check one box):

Participant:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	Participant 2:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
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I _____, the enumerator responsible for the interview taking place on _____, 2011 certify that I have read the above statement to the participant and they have consented to the interview. I pledge to conduct this interview as indicated on instructions and inform my supervisor of any problems encountered during the interview process.

If the household does not give consent to all of the data collection, stop the interview and inform your team leader. Team leaders will discuss the reason for this refusal and decide whether a partial data collection is possible for this household.

Consent form approved by IFPRI IRB on August 16, 2011.

LISTING OF SURVEY MODULES

HOUSEHOLD LEVEL QUESTIONNAIRE		INDIVIDUAL LEVEL QUESTIONNAIRE	
Module A	HOUSEHOLD IDENTIFICATION	Module A	INDIVIDUAL IDENTIFICATION
Module B	HOUSEHOLD LISTING AND DEMOGRAPHICS	Module B	Dimension 1: Role in household decision-making
Module C	DWELLING CHARACTERISTICS	Module C	Dimension 2: Access to productive capital
Module D	EMPLOYMENT AND LABOR FORCE ACTIVITIES	Module D	Dimension 3: Adequacy of income to meet household needs
Module E	LAND AND AGRICULTURE	Module E	Dimension 4: Individual leadership and influence in the community
Module F	LIVESTOCK	Module F	Dimension 5: Time allocation
Module G	BUSINESS AND ENTREPRENEURSHIP	Module G	Decision making
Module H	CONSUMPTION AND CONSUMPTION HABITS		

DEFINITION OF HOUSEHOLD AND RESPONDENTS

A **household** is a group of people who live together and take food from the "same pot." In our survey, a household member is someone who has lived in the household at least 6 months, and at least half of the week in each week in those months. Even those persons who are not blood relations (such as servants, lodgers, or agricultural laborers) are members of the household if they have stayed in the household at least 3 months of the past 6 months and take food from the "same pot." If someone stays in the same household but does not bear any costs for food or does not take food from the same pot, they are not considered household members. For example, if two brothers stay in the same house with their families but they do not share food costs and they cook separately, then they are considered two separate households. Generally, if one person stays more than 3 months out of the last 6 months outside the household, they are not considered household members. We do not include them even if other household members consider them as household members.

Exceptions to these rules should be made for:

Consider as household member:

- A newborn child less than 3 months old.
- Someone who has joined the household through marriage less than 3 months ago.
- Servants, lodgers, and agricultural laborers currently in the household and will be staying in the household for a longer period but arrived less than 3 months ago.

Do not consider as household member:

- A person who died very recently though stayed more than 3 months in last 6 months.
- Someone who has left the household through marriage less than 3 months ago.
- Servants, lodgers, and agricultural laborers who stayed more than 3 months in last 6 months but left permanently.

This definition of the household is very important. The criteria could be different from other studies you may be familiar with, but you should keep in mind that you should not include those people who do not meet these criteria. Please discuss any questions with your supervisor.

The **primary and secondary respondents** are those which are self identified as the primary members responsible for the decision making, both social and economic, within the household. They are usually husband and wife, however can also be another member as long as there is one male and one female aged 18 and over. It may also be the case that there is only a primary respondent if that person is a female and there is no adult male present in the household.

MODULE C. DWELLING CHARACTERISTICS; Enumerator: Ask this section to the female head/spouse or member who has the most knowledge on food preparation. Respondent ID:

Q No.	Question	Response	Option for response
C01	Roof top material of the dwelling (outer covering): ENUMERATOR: OBSERVE (DO NOT ASK)	<input type="text"/>	Concrete/brick/cement/tially1 Tin/Cl sheet (corrugated metal)2 Wood3 Bamboo/jute/stick4 Golpatala/patala/Shon/Straw / (vegetable matter)5 Mud/thatched/cowdung6 Other (.....)7
C02	Floor material of the dwelling: ENUMERATOR: OBSERVE (DO NOT ASK)	<input type="text"/>	Concrete/brick/cement/tially1 Tin/Cl sheet (corrugated metal)2 Wood3 Bamboo/jute/stick4 Golpatala/patala/Shon/Straw / (vegetable matter)5 Mud/thatched/cowdung6 Other (.....)7
C03	State/condition of the dwelling: ENUMERATOR: OBSERVE (DO NOT ASK)	<input type="text"/>	In excellent repair, no sign of wear1 In good shape, some minor wear-and-tear or damage2 In moderate condition, some damage/ moderate wear-and-tear3 In poor shape, much damage4 In very bad shape5
C04	IF THE HOUSEHOLD SHARES THE SPACE WITH OTHER HOUSEHOLDS: How many other households live in this same house or apartment?	<input type="text"/>	Enter number of other household(s) share the space (Enter 0 if not shared)
C05	User right of this dwelling is:	<input type="text"/>	Rented1 Owned2 Borrowed for free (not owned/rented)3 Other (specify)4
C06	How many rooms are there in this dwelling? ENUMERATOR: DO NOT CONSIDER BATHROOMS, HALLWAYS, GARAGE, CELLAR	<input type="text"/>	Enter number of rooms in this dwelling
C07	How many rooms are used exclusively for sleeping? ENUMERATOR: DO NOT CONSIDER DRAWING ROOM THAT IS NOT USED FOR SLEEPING	<input type="text"/>	Enter number room(s) used exclusively for sleeping
C08	What is the main type of toilets your household uses?	<input type="text"/>	Watersealed flush toilet1 Watersealed without flush2 Puccaipit latrine (Non-watersealed)3 Katchcha, hanging, pan, bucket, etc (in certain place)4 No certain place, here & there5 Community Toilet6 Other (.....)7
C09	Is there water inside the dwelling?	<input type="text"/>	Yes1 No2
C10	What is the main source of water for general use of the household?	<input type="text"/>	Public tap1 Piped into dwelling2 Tubewell/borehole with pump3 Rain water collection4 Dug well/springs5 River/ponds/streams6 Bottled water7 Other (specify)8

Q No.	Question	Response	Option for response
C11	Is the drinking water from the same source?	<input type="text"/>	Yes 1->C13 No 2 Don't know 9->C13
C12	What is the main source of drinking water for your household?	<input type="text"/>	Public tap 1 Piped into dwelling..... 2 Tubewell/borehole with pump..... 3 Rain water collection..... 4 Dug well/springs..... 5 River/ponds/streams..... 6 Bottled water..... 7 Other (specify)..... 8
C13	What is the process through which you prepare the water used for drinking?	<input type="text"/>	Filtered 1 Boiled..... 2 Filtered and boiled..... 3 Iodine or other mineral / natural treatments 4 Directly from the source 5 UV treated 6 Other (specify)..... 7
C14	Does this dwelling have access to electricity?	<input type="text"/>	Yes 1->C16 No 2
C15	What is the main lighting source for this household?	<input type="text"/>	Electricity via national grid 1 Solar panel..... 2 Piped or liquid propane gas..... 3 Private generator 4 Public or shared generator 5 Lanterns/candles/paraffin 6 Fire lit sticks, grass or pit..... 7 Other (specify)..... 8
C16	What is the main source of cooking fuel for this household?	<input type="text"/>	Electricity..... 1 Piped (Thas) or liquid propane gas (LPG)..... 2 Kerosene..... 3 Charcoal..... 4 Firewood..... 5 Animal dung..... 6 Agricultural crop residue..... 7 Other (specify)..... 8
C17	What is the main destination of household waste for this household?	<input type="text"/>	Collected by local authority..... 1 Collected by private firm 2 Garbage pit..... 3 Burned or buried..... 4 Public garbage..... 5 Heap..... 6 Dumped in vacant land/property..... 7 Dumped in pond, river, lake or sea 8 Other (specify)..... 9

Employment Status Codes for Module D:

Code 1: Employment status	Code 2: Reasons for not working	Code 3: Length unemployed / not working?	Code 4: Type of work
<p>Worked for pay (salary, wage, self-employed)..... 1</p> <p>Worked without pay (apprentice, family business)..... 2</p> <p>Did not work but have a job..... 3</p> <p>Did not work but looked for a job..... 4</p> <p>Did not work because:</p> <p>Only studied (student)..... 5</p> <p>Too young (not student)..... 6</p> <p>Too old/retired..... 7</p> <p>Home/household work (incl live-in Maid/servant)..... 8</p> <p>Disabled/invald..... 9</p> <p>Don't need to work..... 10</p> <p>Other (specify)..... 11</p> <p>Code 5: Occupation list</p> <p>Wage labor</p> <p>Agricultural day labor..... 1</p> <p>Factory worker..... 2</p> <p>Transport worker (e.g. bus/truck helper)..... 3</p> <p>Earth work labor..... 4</p> <p>Construction labor..... 5</p> <p>Sweeper..... 6</p> <p>Scavenger..... 7</p> <p>Tea garden worker..... 8</p> <p>Apprentice..... 9</p> <p>Other Wage labour..... 10</p> <p>Salaried worker</p> <p>Government parastatal..... 11</p> <p>Private enterprise (e.g. sales person, manager)..... 12</p> <p>House maid/servant..... 13</p> <p>Teacher (Primary school)..... 14</p> <p>Teacher (High school)..... 15</p> <p>Teacher (College/university)..... 16</p> <p>NGO worker..... 17</p> <p>Other salaried worker..... 18</p>	<p>Sick..... 1</p> <p>Vacation..... 2</p> <p>Hartal/strike..... 3</p> <p>Taking care of household matters..... 4</p> <p>Taking care of family members..... 5</p> <p>Other (specify)..... 6</p>	<p>Enter months 0 – 12</p> <p>Otherwise: More than 13 months..... 13</p> <p>First time to look for job..... 14</p>	<p>Wage/salary..... 1</p> <p>Work without pay..... 2</p> <p>Self employed..... 3</p>
<p>Self-employment</p> <p>Rickshaw/van pulling..... 21</p> <p>Driver of motor vehicle..... 22</p> <p>Tailor/seamstress..... 23</p> <p>Blacksmith..... 24</p> <p>Potter..... 25</p> <p>Cobbler..... 26</p> <p>Hair cutter..... 27</p> <p>Clothes washer..... 28</p> <p>Goldsmith/silversmith..... 29</p> <p>Reparman (appliances)..... 30</p> <p>Mechanic (vehicles)..... 31</p> <p>Plumber..... 32</p> <p>Electrician..... 33</p> <p>Carpenter..... 34</p> <p>Mason..... 35</p> <p>Doctor..... 36</p> <p>Engineer..... 37</p> <p>Herbal doctor/Kabiraj..... 38</p> <p>Midwife..... 39</p> <p>Lawyer/deed writer / Mokar..... 40</p> <p>Religious leader (Imam/Waazeen/Khadem/Purohit)..... 41</p> <p>House tutor..... 42</p> <p>Beggar..... 43</p>		<p>Livestock/Poultry Service</p> <p>Milk collector..... 45</p> <p>Vet medicine seller..... 46</p> <p>Feed supplier..... 47</p> <p>Commercially feed producer..... 48</p> <p>Animal Breeder..... 49</p> <p>Veterinary/paravet doctor..... 50</p> <p>Production</p> <p>Food Processing..... 51</p> <p>Small industry..... 52</p> <p>Handicrafts..... 53</p> <p>Trader</p> <p>Small trader (roadside stand or stall)..... 54</p> <p>Medium trader (shop or small store)..... 55</p> <p>Large trader (large shop or whole sale)..... 56</p> <p>Fish Trader..... 57</p> <p>Contractor..... 58</p>	<p>Farming</p> <p>Working own farm..... 61</p> <p>Share cropper/tenant..... 62</p> <p>Fisherman..... 63</p> <p>Raising fish / fish pond..... 64</p> <p>Raising poultry..... 65</p> <p>Raising livestock..... 66</p> <p>Cow for milk production (dairy farming)..... 67</p> <p>Other self-employed..... 68</p>

MODULE E1. (only for Bangladesh) FISH CULTURE Enumerator: Ask this section to the member with most knowledge about household fish culture Respondent ID:

READ: Now I am going to ask you a series of questions about the fish ponds that your household cultivate, whether on your own land or land rented in or rented out. I would like you to consider not only the fishponds that your household cultivates now, but also the fishponds that your household may have used in the past 12 months. Please start with the largest pond and move to the smallest pond in terms of area.

ID	What is the name of the pond/pond description?	What type of pond is [POND]?	What is the size of [POND]?	What is the operational status of [POND]?	Who owns [POND]?	If you made any improvements on [POND] (such as excavation, deepening, adding structures, etc) in the last 12 months, who made this decision to make the improvement?	If you were to buy a similar plot as [POND] today, how much would you pay?	Who physically worked on [POND] in the last 12 months?	Who, in the last 12 months generally made the decisions about what kinds of fish to grow in [POND]?	Who during the last 12 months generally made the decisions about what inputs to use on [POND]?										
PondID	Description	E1_02	E1_03	E1_04	E1_05a	E1_05b	E1_05c	E1_06a	E1_06b	E1_06c	E1_07	E1_08a	E1_08b	E1_08c	E1_09a	E1_09b	E1_09c	E1_10a	E1_10b	E1_10c
		Code 1 ↓	(decimals)	Code 2 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	(taka)	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓	Code 3 ↓

CODE 1 (E1_02) : Type of pond	CODE 2 (E1_04): Operational status	CODE 3: Who owns the pond
Cultivable Pond.....1 Derelict Pond.....2	Fallow.....1 Own operated.....2 Rented-in/cash.....3 Rented-in/share.....4 Mortgage-in.....5 Rented-out/cash.....6 Rented-out/share.....7 Mortgage-out.....8	Leased-in/group.....9 Leased-out to NGO group.....10 Taken from joint owner.....11 Jointly with other owners.....12 Household jointly.....30 Outside household male.....31 Outside household female.....32 Government or other institution.....33 Not applicable/decision not made.....98

MODULE H: CONSUMPTION AND CONSUMPTION HABITS Enumerator: Ask this section to the female head/spouse or member who has the most knowledge on food preparation. Respondent ID:

Question	Code	Response	Item	Food frequency: READ. Now I would like to ask you about foods that the members of your household consumed at home. Could you please tell me how many days in the past week your household has eaten the following food items, prepared and/or consumed at home and what the source of the food was?	H07. Number of days eaten in previous 7 days: If 0 >> Next item	H08. What was the main source of this food in the last 7 days?
H01 In the past 4 weeks was there ever no food to eat of any kind in your house because of lack of resources to get food?	Yes 1 No 2 >>H03		Item		CODE 1	CODE 2
H02 How often did this happen in the past 4 weeks?	Rarely (1-2 times) 1 Sometimes (3-10 times) 2 Often (> 10 times) 3		1 2 3	Wheat flour (Roti, bread, noodles) Rice Potatoes, cassava, matoke and other roots/tubers		
H03 In the past 4 weeks did you or any household member go to sleep at night hungry because there was not enough food?	Yes 1 No 1 >>H05		4 5 6	Cereals (maize, sorghum, millet, barley) Vegetables Fruits/fruit juices (fresh and dry)		
H04 How often did this happen in the past 4 weeks?	Rarely (1-2 times) 1 Sometimes (3-10 times) 2 Often (> 10 times) 3		7 8 9	Beans, lentils, peas, nuts Eggs Dairy products (milk, cheese, yoghurt)		
H05 In the past 4 weeks did you or any household member go a whole day and night without eating anything at all because there was not enough food?	Yes 1 No 2 >>H07		10 11 12 13	Meat (goat, beef, lamb, pork) Poultry (chicken, duck, pidgeon) Fish (fresh and dry) Oil/fats (ghee, butter, veg oil)		
H06 How often did this happen in the past 4 weeks?	Rarely (1-2 times) 1 Sometimes (3-10 times) 2 Often (> 10 times) 3		14 15 16 17	Sugar, Honey Condiments (spices, ketchup) Nuts and seeds (ground nut, simsim, sunflower) Tobacco (Alcohol included)		

CODE 1: (H07) Food Frequency

- Not eaten 0
- 1 day 1
- 2 days 2
- 3 days 3
- 4 days 4
- 5 days 5
- 6 days 6
- 7 days 7

Code 2: (H08) Source of Food

- Own production 1
- Hunting/gathering/fishing 2
- Bought using cash 3
- Bought on credit 4
- Borrowed (friends/relatives) 5
- Gifts (friends/relatives) 6
- Begging 7
- Received as payment 8
- Food assistance 9

Appendix C

Pilot Testing of Agriculture Index Bangladesh: Individual Level Questionnaire

Confidential: To be used
Only for research purposes

International Food Policy Research Institute (IFPRI) & Data Analysis and Technical Assistance Limited (DATA)

INSTRUCTIONS ON ADMINISTRATION:

Enumerator: This questionnaire should be administered to individuals identified in the household roster (Section B) of the household level questionnaire as the primary and secondary respondents. 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 household questionnaire, at least the first 2 modules;
- You have identified the correct individual;
- 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.

MODULE A. INDIVIDUAL IDENTIFICATION

Household Identification	Code	Interview details	Code
A01. Household identification:.....	[][]	A07. Start time of interview (hh:mm=> write in 24 hr time format)	[] : [][]
A02. Census number:.....	[][][]	A08. End time of interview (hh:mm=> write in 24 hr time format)	[][] : [][][]
A03. Name of primary respondent (code from roster in Section B): Last, First:	[][] [][]	A09. Name/code of enumerator:	[][]
A04. Name of respondent (code from roster in Section B of household questionnaire): Last, First:	[][] [][]	A10. Sex of enumerator: Male:..... 1 Female:..... 2	[]
A05. Sex of respondent: Male:..... 1 Female:..... 2	[]	A11. Outcome of interview (enter code from Code 2↓):	[][]
A06. Type of household (enter code from Code 1↓):	[]	A12. Ability to be interviewed alone (enter code from Code 3↓):	[]

Code list for Module A:

Code 1 (A06) : Type of Household:	Code2 (A11): Outcome of interview	Code 3 (A12): Ability to be interviewed alone
Male and Female adult 1	Completed 1	Alone 1
Female, no Male adult 2	Incomplete 2	With other adult females present 2
Male, no Female adult 3	Absent 3	With other adult males present 3
No adult 4	Refused 4	With other adults mixed sex present 4
	Could not locate 5	With children present 5

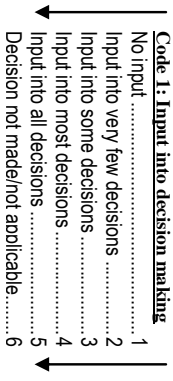
MODULE B: (Dimension 1): Role in household decision-making around production and income generation

Enumerator: The purpose of this module is to get an idea about men's and women's relative roles in decision making around income-generating activities. Do not attempt to ensure that responses are the same between the male and female respondent. It is okay for them to be different.

RANDOMIZATION:

Enumerator, please check the start time of the interview. If the interview started on an even minute (0, 2, 4, 6 or 8) please follow OPTION A. If the interview started on an odd minute (1, 3, 5, 7 or 9) please administer OPTION B. Check which option you follow:

- Option A: Read additional example questions for B02/B03 highlighted in grey.
- Option B: DO NOT read additional example questions for B02/B03 highlighted in grey.



ActivityCode	Activity Description	Activity	Did you (singular) participate in [ACTIVITY] in the past 12 months? Yes:..... 1 No 2 -> next activity	How much input did you have in making decisions about [ACTIVITY]? CODE 1↑	How much input did you have in decisions on the use of income generated from [ACTIVITY] CODE 1↑
			B01	B02	B03
1	Food crop farming: crops that are grown primarily for household food consumption Option A (B02/B03 only): For example, did you have input into decisions about what crops to plant this year or in which plots they would be planted, or which seeds, fertilizer (other inputs) your family would buy?		<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Cash crop farming : crops that are grown primary for sale in the market Option A (B02/B03 only): For example, did you have input into decisions about how much of your family's land would be used for growing cash crops, or about the crops to be grown for sale, and the inputs to be used for those crops?		<input type="text"/>	<input type="text"/>	<input type="text"/>
3	Livestock raising: Option A (B02/B03 only): For example, did you have input into decisions about the purchase, care, or sale of livestock?		<input type="text"/>	<input type="text"/>	<input type="text"/>
4	Non-farm economic activities:small business, self employment, buy-and-sell Option A (B02/B03 only): For example, did you have input into purchases made for a small business or goods sold?		<input type="text"/>	<input type="text"/>	<input type="text"/>
5	Wage and salary employment: in-kind or monetary work both agriculture and other Option A (B02/B03 only): For example, did you have input into decisions about if you or other household members would work outside of the housed?		<input type="text"/>	<input type="text"/>	<input type="text"/>
6	Fishing or fish culture Option A (B02/B03 only): For example, did you have input into decisions about when to do fishing, or how to stock a fish pond, inputs for fish culture?		<input type="text"/>	<input type="text"/>	<input type="text"/>

MODULE C (Dimension 2): Access to productive capital

Enumerator: The purpose of this module is to get an idea about men's and women's access to capital or assets and their ability to control use of the resource. Again, do not attempt to ensure that responses are the same between the male and female respondent. It is okay for them to be different. In the case the respondent has no spouse or partner, please enter 98 in C07 and C08.

	Productive Capital	Does anyone in your household currently have any [ITEM]?	How many of [ITEM] does your household currently have?	Who would you say owns most of the [ITEM]?	Who would you say can use the [ITEM] most of the time?	Who would you say can decide whether to sell [ITEM] most of the time?	Who would you say can decide whether to give away [ITEM] most of the time?	Who would you say can decide to mortgage or rent out [ITEM] most of the time?	Who would you say would keep the majority of [ITEM] in the case a marriage is dissolved because of divorce or separation?	Who would you say would keep the majority of [ITEM] in the case a marriage is dissolved because of death?	Who contributes most to decisions regarding a new purchase of [ITEM]?
		Yes 1 No 2 >> next item		CODE 1 ↓	CODE 1 ↓	CODE 1 ↓	CODE 1 ↓	CODE 1 ↓	CODE 1 ↓	CODE 1 ↓	CODE 1 ↓
	Productive Capital	C01a	C01b	C02	C03	C04	C05	C06	C07	C08	C09
A	Agricultural land (pieces/plots)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Large livestock (oxen, buffalo)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	Small livestock (goats, sheep)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	Chickens, Ducks, Turkeys, Pigeons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E	Fish pond or fishing equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	Farm equipment (non-mechanized)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G	Farm equipment (mechanized)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H	Nonfarm business equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	House (and other structures)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J	Large consumer durables (fridge, TV, sofa)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K	Small consumer durables (radio, cookware)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L	Cell phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M	Other land not used for agricultural purposes (residential or commercial land)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N	Means of transportation (bicycle, rickshaw, motorcycle, car)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CODE 1 (for C02 – C09): Decision-making and control over capital

Self.....	1	Self and other household member.....	5	Self, spouse and other outside people.....	9
Spouse.....	2	Spouse and other household member.....	6	Someone (or group of people) outside the household.....	10
Self and spouse jointly.....	3	Self and other outside people.....	7		
Other household member.....	4	Spouse and other outside people.....	8		

MODULE C (Dimension 2): Access to Credit, CONTINUED

Lending 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]?	Who makes the decision about what to do with the money/ item borrow from [SOURCE]?
Lending source names		C10		
		C11		
		C12		
A	Non-governmental organization (NGO)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Informal lender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	Formal lender (bank/financial institution)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	Friends or relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E	ROSCA (savings/credit group)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CODE 1 (for C11 – C12): Decision-making and control over capital

Self.....	1	Self and other household member.....	5	Self, spouse and other outside people.....	9
Spouse.....	2	Spouse and other household member.....	6	Someone (or group of people) outside the household.....	10
Self and spouse jointly.....	3	Self and other outside people.....	7		
Other household member.....	4	Spouse and other outside people.....	8		

MODULE C (Dimension 2): Access to Agriculture/livestock/fisheries extension, CONTINUED

QNo.	Question	Response	Response options
C13	Where do you typically get information on farming or livestock related topics such as new seeds, technology, crop rotation or animal health?	<input type="checkbox"/>	Government agency or outlet1 NGO or NGO outlet2 Private shop/suppliers3 Community members or cooperative4 Family member5 Media (radio/TV/newspaper)6 Not applicable/do not get advice7
C14	Have you (yourself) ever met with an agricultural extension worker or livestock/fisheries extension worker in the past 12 months?	<input type="checkbox"/>	Yes.....1 No2 >> Next section
C15	How many times did you meet with the agricultural extension worker or livestock/fisheries worker in the past 12 months?	<input type="checkbox"/>	[Enter number of visits]
C16	The last time you met with an extension worker, were they a male or female?	<input type="checkbox"/>	Male.....1 Female.....2 Both male and female.....3

MODULE D (Dimension 3): Income

Enumerator: The purpose of this module is to get an idea about how the surplus of household, men's and women's incomes, after food needs are met, is allocated among other expenditure categories. Do not attempt to ensure that responses are the same between male and female respondent. It is okay for them to be different.

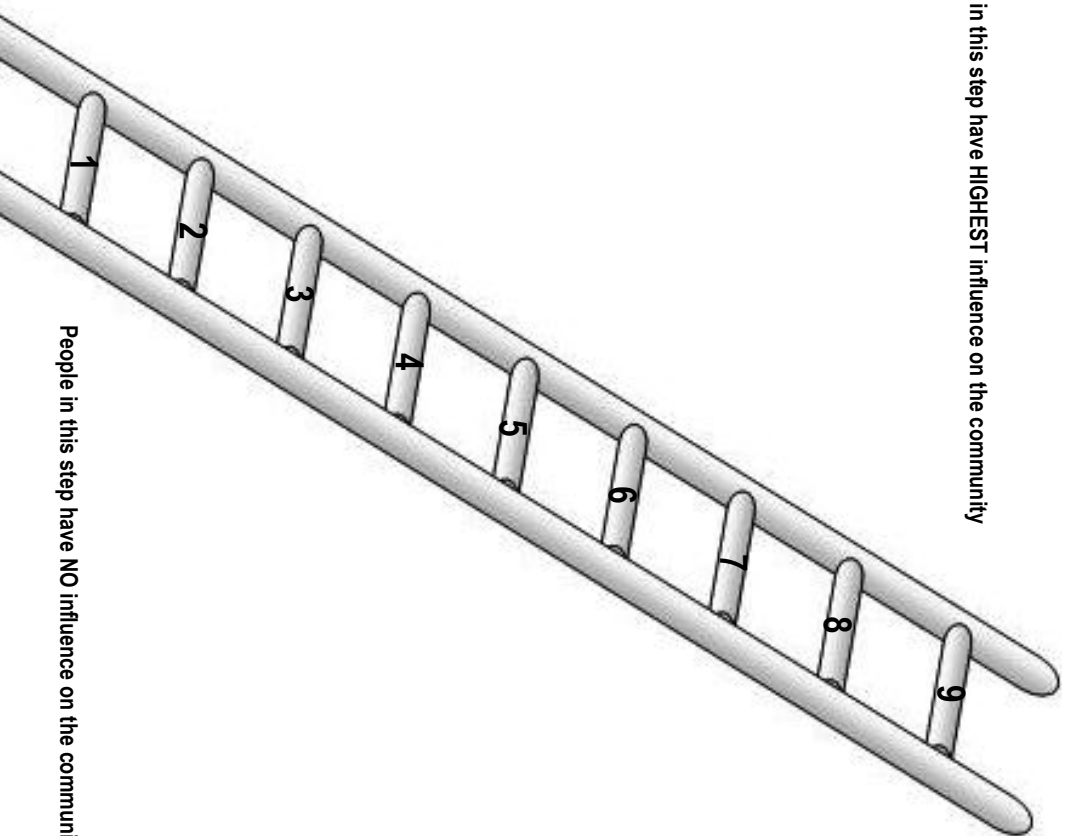
QNo.	Question	Response	Response options/instructions
D01	Do you alone have any money you can decide what to spend on?	<input type="checkbox"/>	Yes 1 No 2
D02	ENUMERATOR: Skip this question if the respondent has no partner. If the respondent has more than one spouse/partner, ask in relation to the individual being interviewed in the parallel individual questionnaire. In comparison to your partner, do you: [READ RESPONSES]:	<input type="checkbox"/>	Earn more money than him/her 1 Earn less money than him/her 2 Earn about the same money as him/her 3 Partner does not earn money 4 I do not earn money 5 Both partner and I do not earn money 6 Do not know how much partner earns 7 Not Applicable 98
	Question: Household level		
D03	In the last 12 months, after providing food for the family, what did your household spend your remaining money on?	A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/>	Code 1 ↓: List up to 5 in order of importance [DO NOT PROMPT] (if filled and not 98 -> Skip to D05)
D04	In the last 12 months, if the household did not have any remaining money, what is the reason?	A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/>	Code 2 ↓: List up to 3 reasons in order of importance [DO NOT PROMPT]
	Question: Individual level		
D05	In the last 12 months, after providing food for the family, what did you (singular) spend your remaining money on?	A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/>	Code 1 ↓: List up to 5 in order of importance [DO NOT PROMPT] (if filled and not 98 -> Skip to Next Section)
D06	In the last 12 months, if you (singular) did not have any remaining money, what is the reason?	A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/>	Code 2 ↓: List up to 3 reasons in order of importance [DO NOT PROMPT]

CODE 1: (D03, D05) Spending categories	Code 2: (D04, D06) Reasons why no extra money
Clothes/shoes for myself 1	Bad harvest 1
Clothes/shoes for my spouse 2	Irregular income/business is slow 2
Clothes/shoes for my children 3	Other negative shock (illness) 3
School fees of school supplies for children 4	Unexpected expenditures 4
Consumer durables 5	No control over extra money 5
Fix or improve house 6	
Buy asset for farming 7	
Buy asset for business 8	
Buy jewelry 9	
Services (beauty/hair/etc) 10	
	Household or myself has no money 98

MODULE E (Dimension 4): Individual leadership and influence in the community
 Enumerator: The purpose of this module is to get an idea about men's and women's potential for leadership and influence in the communities where they live. Again, do not attempt to ensure that responses are the same between the male and female respondent. It is okay for them to be different.

QNo.	Question	Response	Response options/Instructions
E01	Do you feel that a [man / woman] like yourself can generally change things in the community where you live if s/he wants to?	<input type="text"/>	No, not at all 1 Yes, but with a great deal of difficulty 2 Yes, but with a little difficulty 3 Yes, fairly easily 4 Yes, very easily 5
E02	Do you feel comfortable speaking up in public:		
E02A	To help decide on infrastructure (like small wells, roads, water supplies) to be built in your community?	<input type="text"/>	No, not at all comfortable 1 Yes, but with a great deal of difficulty 2 Yes, but with a little difficulty 3 Yes, fairly comfortable 4 Yes, very comfortable 5
E02B	To ensure proper payment of wages for public work or other similar programs?	<input type="text"/>	
E02C	To protest the misbehavior of authorities or elected officials?	<input type="text"/>	
E02D	To intervene in case of a family dispute?	<input type="text"/>	
E03	Have you ever voted in a local or national election?	<input type="text"/>	Yes 1 >> E04 No 2 >> E05
E04	If yes, during the last time you voted, did you cast your vote for the person you chose yourself or your spouse chose or somebody else chose?	<input type="text"/>	Yourself 1 Spouse 2 Other relative 3 Somebody else 4 Does not remember 5
E05	In the last 12 months, have you		
E05A	Contributed money or time to building small wells or maintenance of irrigation facilities in your community?	<input type="text"/>	Yes 1 No 2
E05B	Contributed money or time to building or maintaining roads in your community?	<input type="text"/>	Yes 1 No 2
E05C	Contributed money or time to town development projects or public works projects in your community?	<input type="text"/>	Yes 1 No 2
E05D	Contributed money or time to building or maintaining your local mosque/church/temple?	<input type="text"/>	Yes 1 No 2
E05E	In the last year, did you give money to any other family because someone in their family was sick?	<input type="text"/>	Yes 1 No 2
E05F	In the last year, did you help another family out with agricultural labor?	<input type="text"/>	Yes 1 No 2
E05G	In the last year, did you help another family out when they needed help with child care?	<input type="text"/>	Yes 1 No 2
E06.	Please imagine a nine-step ladder, where on the bottom, the first step, stand people who have NO influence on the community, and step 9, the highest step, stand those who have influence in the community. On which step are you?	<input type="text"/>	[Enter step 1 - 9] Enumerator Show the ladder in the next page

People in this step have HIGHEST influence on the community



People in this step have NO influence on the community

MODULE E (Dimension 4): Individual leadership and influence in the community, CONTINUED

Group membership	Group Names	Are you an active member of any [GROUP]? Yes 1 No 2 >> next group	Do you have a leadership position in this [GROUP]? Yes 1 >> E10 No 2	Have you ever had a leadership position in this [GROUP]? Yes 1 No 2	How much input do you have in making decisions in this [GROUP]? Code 1 ↓	Is this a single-sex group? Yes 1 No 2	How often does the [GROUP] meet? Code 2 ↓	Out of the last 5 meetings, how many did you attend? [Number of meetings]
		E07	E08	E09	E10	E11	E12	E13
A	Agricultural / livestock/ fisheries producer's group (including marketing groups)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Water users' group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	Forest users' group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	Credit or microfinance group (incl. ROSCAs/mercy-go-rounds)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E	Mutual help or insurance group (including burial societies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	Trade and business association	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G	Civic groups (improving community) or charitable group (helping others)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H	Local government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	Religious group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J	Other women's group (only if it does not fit into one of the other categories)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CODE 1: (E09) Control over decisions	CODE 2: (E11) Frequency of meeting
No input 1	More than once a week 1
Input into very few decisions 2	Once a week 2
Input into some decisions 3	Once every two weeks 3
Input into most decisions 4	Once a month 4
Input into all decisions 5	Less than once a month 5

MODULE F (Dimension 5): Time allocation, CONTINUED

QNo.	Question	Response	Response options/Instructions						
F02	Was yesterday a holiday or nonworking day?	<input type="text"/>	Yes 1 No 2						
F03	Regarding the amount of sleep you got last night, was that [READ RESPONSES]:	<input type="text"/>	Less than average 1 Average 2 More than average 3						
F04	READ: I am going to ask you a series of questions and I want you to tell me how would you rate your satisfaction on a scale of 1 to 10, where 1 means you are not satisfied and 10 means you are very satisfied. If you are neither satisfied or dissatisfied this would be in the middle or 5 on the scale. How would you rate your satisfaction with:								
F04A	The distribution of work duties within your household?	<input type="text"/>	Please mark on a scale from 1 – 10						
F04B	Your available time for leisure activities like visiting neighbors, watching TV, listening to radio, seeing movies or doing sports?	<input type="text"/>	Not satisfied ☹ 1						
F04C	Your contacts with friends or relatives?	<input type="text"/>	Neither satisfied nor dissatisfied ☹ 5 ↕						
F04D	Your possibilities of going to other places outside your village?	<input type="text"/>	Very satisfied ☺ 10						
F04E	Your power to make important decisions that change the course of your life?	<input type="text"/>							
F04F	Your satisfaction with your life overall?	<input type="text"/>							
F05	During the last four weeks, how many days of your primary daily activities did you miss because of poor health?	<input type="text"/>	Enter number of days [1-28]						
F06	Were the last four weeks typical or average?	<input type="text"/>	Worse than average 1 Average 2 Better than average 3						
F07	Were you unable to complete normal activities in the last 24 hours?	<input type="text"/>	Yes 1 No 2						
F08	Do you suffer from a chronic disability?	<input type="text"/>	Yes 1 No 2 >> F10						
F09	If yes, what kind? [ALLOW UP TO 3 RESPONSES]	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;">F09_a</td> <td style="width: 33%;">F09_b</td> <td style="width: 33%;">F09_c</td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </table>	F09_a	F09_b	F09_c	<input type="text"/>	<input type="text"/>	<input type="text"/>	Deaf or hearing disability 1 Mobility or missing limbs 2 Speech or language disability 3 Learning or mental impairment 4 Blind or visual disability 5 Chronic health or disease 6 Psychological or emotional 7 Other, specify 8
F09_a	F09_b	F09_c							
<input type="text"/>	<input type="text"/>	<input type="text"/>							
ENUMERATOR: If male, stop and proceed to next Module; If female, continue with F10.									
F10	Are you currently pregnant?	<input type="text"/>	Yes 1 No 2						
F11	Are you currently breastfeeding?	<input type="text"/>	Yes 1 No 2						

MODULE G: Decision making

Enumerator: The purpose of this module is to get additional information about decision making within households.

Again, do not attempt to ensure that responses are the same between the male and female respondent. It is okay for them to be different.

ENUMERATOR: Ask G01 for all categories of decision making domains before asking G02.	When decisions are made regarding the following aspects of household life, who is it that normally takes the decision? If 1 and respondent is male OR If 2 and respondent is female (-> next domain) Otherwise -> G02.	To what extent do you feel you can make your own personal decisions regarding these aspects of household life if you wanted) to?
CODE 1 ↓		CODE 2 ↓
A Agricultural production?	G01	G02
B What inputs to buy for agricultural production?		
C What types of crops to grow for agricultural production?		
D When or who would take crops to the market?		
E Livestock raising?		
F Non-farm business activity?		
G Your own wage or salary employment?		
H Minor household expenditures?		
I What to do if you have a serious health problem?		
J How to protect yourself from violence?		
K Whether and how to express religious faith?		
L What kind of tasks you will do on a particular day?		
M Whether or not to use family planning to space or limit births?		

CODE 1: (G01) Decision making

- Main male or husband 1
- Main female or wife 2
- Husband and wife jointly 3
- Someone else in the household 4
- Jointly with someone else inside the household 5
- Jointly with someone else outside the household 6
- Someone outside the household/other 7
- Decision not made 98

CODE 2: (G02) Extent of participation in decision making

- Not at all 1
- Small extent 2
- Medium extent 3
- To a high extent 4

MODULE G: Decision making, CONTINUED

ENUMERATOR: This is the last set of questions and it is very important. I am going to give you some reasons for why you might undertake activities in the domains I just mentioned. You might have several reasons for doing each one and there is no right or wrong answer. Please tell me how true it would be to say:

		Your actions with respect to [DOMAIN] are motivated by a desire to avoid punishment or gain reward? [READ OPTIONS] CODE 1 ↓	Your actions with respect to [DOMAIN] are motivated by a desire to avoid blame or so that other people speak well of you? [READ OPTIONS] CODE 1 ↓	Your actions with respect to [DOMAIN] are motivated by and reflect your own values and/or interests? [READ OPTIONS] CODE 1 ↓	How satisfied were you with the decisions made in [DOMAIN]? [READ OPTIONS] CODE 2 ↓
A	Agricultural production?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B	What inputs to buy for agricultural production?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
C	What types of crops to grow for agricultural production?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
D	When or who would take crops to the market?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
E	Livestock raising?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
F	Nonfarm business activity?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
G	Your own wage or salary employment?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
H	Minor household expenditures?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
I	What to do if you have a serious health problem?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
J	How to protect yourself from violence?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
K	Whether and how to express religious faith?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
L	What kind of tasks you will do on a particular day?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
M	Whether or not to use family planning to space or limit births?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

CODE 1: Motivation for activity	CODE 2: Extent of satisfaction with activity
Always true.....1	Very satisfied.....1
Somewhat true.....2	Somewhat satisfied.....2
Not very true.....3	Neither satisfied nor dissatisfied.....3
Never true.....4	Somewhat dissatisfied.....4
Decision not made.....98	Very dissatisfied.....5
	Decision not made.....98

Appendix D

Household Questionnaire modules for the Women's Empowerment in Agriculture Index

Example Questionnaire for Uganda: International Food Policy Research Institute (IFPRI)

NOTE: This instrument is the same version as the original household questionnaire included in the second Women's Empowerment in Agriculture pilot survey for Uganda. This information can be used in conjunction with the Individual level questionnaire to construct and validate the index. Note that this instrument must be adapted for country context including translations into local languages when appropriate.

MODULE A. HOUSEHOLD IDENTIFICATION

Household Identification	Code	Interview details	Code
A01. Household Identification:	<input style="width: 40px; height: 20px;" type="text"/>	A13. Start time of interview (hh:mm)	<input style="width: 40px; height: 20px;" type="text"/> : <input style="width: 40px; height: 20px;" type="text"/>
A02. Listing number:	<input style="width: 40px; height: 20px;" type="text"/>	A14. End time of interview (hh:mm)	<input style="width: 40px; height: 20px;" type="text"/> : <input style="width: 40px; height: 20px;" type="text"/>
A03. Village (LC1):	<input style="width: 40px; height: 20px;" type="text"/>	A15. Name/code of enumerator:	<input style="width: 40px; height: 20px;" type="text"/>
A04. Parish: (LC 2).....	<input style="width: 40px; height: 20px;" type="text"/>	A16. Date of first visit (dd/mm/yyyy):	<input style="width: 40px; height: 20px;" type="text"/> / <input style="width: 40px; height: 20px;" type="text"/> / <input style="width: 40px; height: 20px;" type="text"/> 2014
A05. Sub-county (LC 3)	<input style="width: 40px; height: 20px;" type="text"/>	A17. Date of second visit (dd/mm/yyyy):	<input style="width: 40px; height: 20px;" type="text"/> / <input style="width: 40px; height: 20px;" type="text"/> / <input style="width: 40px; height: 20px;" type="text"/> 2014
A06. District	<input style="width: 40px; height: 20px;" type="text"/>	A18. Reason for second visit:	
A07. Name of primary respondent (code from roster in Section B): Surname, Religious:.....	<input style="width: 40px; height: 20px;" type="text"/>	A19. Name/code of supervisor:	<input style="width: 40px; height: 20px;" type="text"/>
A08. Type of household: 1 = Male and female adult, 2 = Female adult only	<input style="width: 40px; height: 20px;" type="text"/>	A20. Final outcome of interview (enter code)	<input style="width: 40px; height: 20px;" type="text"/>
A09. Main religion of household (enter code)	<input style="width: 40px; height: 20px;" type="text"/>	xx. Signature of supervisor:	
A10. Main language of the household (enter code):	<input style="width: 40px; height: 20px;" type="text"/>	A22. Name/code of data entry operator:	<input style="width: 40px; height: 20px;" type="text"/>
A11. Main ethnic group of the household (enter code)	<input style="width: 40px; height: 20px;" type="text"/>	A23. Date of data entry:	<input style="width: 40px; height: 20px;" type="text"/> / <input style="width: 40px; height: 20px;" type="text"/> / <input style="width: 40px; height: 20px;" type="text"/> 2014
A12. Cell phone number: <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>		DISTRICT	ETHNIC
	LANGUAGE	Amuru.....1	Acholi.....1
	Acholi1	Kole.....2	Langi.....2
	Lango2	Luwero.....3	Muganda.....3
	Lugunda.....3	Iganga.....4	Musoga.....4
	Lusoga.....4	Masaka.....5	Others (specify).....5
	Others (specify).....5		
		RELIGION	OUTCOME OF INTERVIEW
		Muslim.....1	Completed.....1
		Hindu.....2	Incomplete.....2
		Christian-Protestant... 3	Absent.....3
		Christian-Catholic.....4	Refused.....4
		Christian-Pentecostal.. 5	Could not locate.....5
		Sevent Day Adventist.. 6	
		Other (specify).....9	

Informed Consent for Women's Empowerment in Agriculture Index (REQUIRED)

Informed Consent: Before beginning the interview, it is necessary to introduce the household to the survey and obtain their consent to participate. Make it clear to them that their participation in the survey is voluntary. Please read the following statement in the language of interview:

Thank you for the opportunity to speak with you. We are a research team from Associates Research Uganda Limited working in collaboration with International Food Policy Research Institute. We are conducting a survey to learn about agriculture, food security and wellbeing of households in this area. You have been selected to participate in an interview which includes questions on topics such as your family background, dwelling characteristics, asset ownership and income earning activities. The survey includes both a section to be asked about the household generally, in addition to sections which will be asked to a primary adult male and female in your household if applicable. These questions in total will take approximately 2 hours to complete and your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or to 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 which will link these responses to you.

We will also interview other households in your community and in other parts of Uganda. After we collect all the information we will use the data to make a study about how various programs can be most helpful to the people in this area. Do you have any questions about the study or what I have said? In the future you have any questions regarding study and the interview, or concerns or complaints we welcome you to contact XXXX, by calling XXXX. We will leave one copy of this form for you so that you will have record of this contact information and about the study.

Please ask the participants (male and female) if they consent to the participation in the study (check one box):

Participant 1:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	Participant 2:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
----------------	-----	--------------------------	----	--------------------------	----------------	-----	--------------------------	----	--------------------------

I _____, the enumerator responsible for the interview taking place on _____, 2014 certify that I have read the above statement to the participant and they have consented to the interview. I pledge to conduct this interview as indicated on instructions and inform my supervisor of any problems encountered during the interview process.

If the household does not give consent to all of the data collection, stop the interview and inform your team leader. Team leaders will discuss the reason for this refusal and decide whether a partial data collection is possible for this household.

Consent form approved by IFPRI IRB in XX XX XXXX and by UNCST on XX XX XXXX.

Informed Consent for Women's Empowerment in Agriculture Index

DUPLICATE: Enumerator: Tear out this page, and leave it with the household.

Informed Consent: Before beginning the interview, it is necessary to introduce the household to the survey and obtain their consent to participate. Make it clear to them that their participation in the survey is voluntary. Please read the following statement in the language of interview:

Thank you for the opportunity to speak with you. We are a research team from Associates Research Uganda Limited working in collaboration with the International Food Policy Research Institute. We are conducting a survey to learn about agriculture, food security and wellbeing of households in this area. You have been selected to participate in an interview which includes questions on topics such as your family background, dwelling characteristics, asset ownership and income earning activities. The survey includes both a section to be asked about the household generally, in addition to sections which will be asked to a primary adult male and female in your household if applicable. These questions in total will take approximately 2 hours to complete and your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or to 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 which will link these responses to you.

We will also interview other households in your community and in other parts of Uganda. After we collect all the information we will use the data to make a study about how various programs can be most helpful to the people in this area. Do you have any questions about the study or what I have said? If in the future you have any questions regarding study and the interview, or concerns or complaints we welcome you to contact XXXX by calling XXXX. We will leave one copy of this form for you so that you will have record of this contact information and about the study.

Please ask the participants (male and female) if they consent to the participation in the study (check one box):

Participant 1:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	Participant 2:	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
----------------	-----	--------------------------	----	--------------------------	----------------	-----	--------------------------	----	--------------------------

I _____, the enumerator responsible for the interview taking place on _____, 2014 certify that I have read the above statement to the participant and they have consented to the interview. I pledge to conduct this interview as indicated on instructions and inform my supervisor of any problems encountered during the interview process.

If the household does not give consent to all of the data collection, stop the interview and inform your team leader. Team leaders will discuss the reason for this refusal and decide whether a partial data collection is possible for this household.

Consent form approved by IFPRI IRB on XX XX XXXX and by UNCST on XX XX XXXX.

LISTING OF SURVEY MODULES			
HOUSEHOLD LEVEL QUESTIONNAIRE		INDIVIDUAL LEVEL QUESTIONNAIRE (WEAI)	
Module A	HOUSEHOLD IDENTIFICATION	Module G1	INDIVIDUAL IDENTIFICATION
Module B	HOUSEHOLD LISTING AND DEMOGRAPHICS	Module G2	Role in household decision-making
Module C	DWELLING CHARACTERISTICS	Module G3	Access to productive capital
Module D	EMPLOYMENT AND LABOR FORCE ACTIVITIES	Module G3	Access to credit
Module E	LAND AND AGRICULTURE	Module G4	Motivation for decision-making
Module H	CONSUMPTION AND CONSUMPTION HABITS	Module G5	Time allocation
		Module G6	Leadership and influence in the community
DEFINITION OF HOUSEHOLD AND RESPONDENTS (REQUIRED)			
<p>A household is a group of people who live together and take food from the "same pot." In our survey, a household member is someone who has lived in the household at least 6 months, and at least half of the week in each week in those months. Even those persons who are not blood relations (such as servants, lodgers, or agricultural laborers) are members of the household if they have stayed in the household at least 3 months of the past 6 months and take food from the "same pot." If someone stays in the same household but does not bear any costs for food or does not take food from the same pot, they are not considered household members. For example, if two brothers stay in the same house with their families but they do not share food costs and they cook separately, then they are considered two separate households. Generally, if one person stays more than 3 months out of the last 6 months outside the household, they are not considered household members. We do not include them even if other household members consider them as household members.</p> <p><i>Exceptions to these rules should be made for:</i></p> <p>Consider as household member:</p> <ul style="list-style-type: none"> • A newborn child less than 3 months old. • Someone who has joined the household through marriage less than 3 months ago. • Servants, lodgers, and agricultural laborers currently in the household and will be staying in the household for a longer period but arrived less than 3 months ago. <p><i>Do not</i> consider as household member:</p> <ul style="list-style-type: none"> • A person who died very recently though stayed more than 3 months in last 6 months. • Someone who has left the household through marriage less than 3 months ago. • Servants, lodgers, and agricultural laborers who stayed more than 3 months in last 6 months but left permanently. <p>This definition of the household is very important. The criteria could be different from other studies you may be familiar with, but you should keep in mind that you should not include those people who do not meet these criteria. Please discuss any questions with your supervisor.</p> <p>The primary and secondary respondents are those which are <u>self identified</u> as the primary members responsible for the decision making, both social and economic, within the household. They are usually husband and wife, however can also be another member as long as there is one male and one female aged 18 and over. It may also be the case that there is only a primary respondent if that person is a female and there is no adult male present in the household.</p>			

MODULE B. HOUSEHOLD LISTING AND DEMOGRAPHICS (REQUIRED). *Enumerator: Ask these questions about all household members. The respondent should be the one most knowledgeable about the age, completed education, and other characteristics of household members.* Respondent

First, we would like to ask you about each member of your household. Please list the names of everyone considered to be a member of this household, starting with the primary respondent.

I D C O D E	Name of household member? [start with primary respondent, continue with the secondary respondent, and other members in descending order of age]	What is [NAME's] sex? 1 = M 2 = F	What is [NAME's] relationship to the primary respondent? CODE 1	What is [NAME's] age? (in complete years)	What is [NAME's] marital status? CODE 2	Can [NAME] read and write? CODE 3	Is [NAME] currently attending school? 1 = Yes 2 = No	What is the highest level of education completed by [NAME]? CODE 4
	B01	B02	B03	B04	B05	B06	B07	B08
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Code 1 (B03) Relationship to primary respondent

- Primary respondent.....1
- Spouse.....2
- Son/daughter.....3
- Son/daughter-in-law.....4
- Grandson/granddaughter.....5
- Mother/Father.....6
- Brother/sister.....7
- Nephew/niece.....8
- Nephew/niece of spouse.....9
- Cousin of primary respondent.....10
- Brother/sister-in-law.....11
- Mother/father-in-law.....12
- Cousin of primary respondent's spouse.....13
- Other relative.....14
- Maid.....15
- Other relationship (specify).....16

Code 2: (B05) Civil Status

- Single/never married.....1
- Divorced.....2
- Separated.....3
- Widowed.....4
- Customary marriage, monogamous.....5
- Customary marriage, polygamous.....6
- Religious marriage, monogamous.....7
- Religious marriage, polygamous.....8
- Civil marriage, monogamous.....9
- Civil marriage, polygamous.....10
- Cohabiting, single partner.....11
- Cohabiting, multiple partners.....12
- Not applicable.....98

Code 3 (B06): Literacy

- Cannot read and write.....1
- Can sign (write) only.....2
- Can read only.....3
- Can read and write.....4

Code 4: (B08) Education level

- Less than P1 (or no school).....0
- Primary level 1.....1
- Primary level 2.....2
- Primary level 3.....3
- Primary level 4.....4
- Primary level 5.....5
- Primary level 6.....6
- Primary level 7.....7
- Senior Secondary 1.....8
- Senior Secondary 2.....9
- Senior Secondary 3.....10
- Senior Secondary 4.....11
- Tertiary after O-level.....12
- Secondary 5.....13
- Secondary 6.....14
- Diploma/ University degree or above.....15
- Technical or vocational.....16
- Adult literacy only (no formal education).....17
- Koranic/religious only (no formal education).....18
- Don't know.....97

MODULE D. EMPLOYMENT AND LABOR FORCE ACTIVITIES; Enumerator: Ask these questions about all household members over the age of 5. The respondent should be the one most knowledgeable about the employment activities of household members. Respondent ID:

I D C O D E	Name (First)	What was the employment status of [NAME] in the past 7 days? (Code 1) if 5-11 >> next member	What is [NAME]'s primary occupation in terms of how much time you spend? (Code 4)	What is [NAME]'s secondary occupation in terms of how much time you spend? (Code 4)
		D01	D04	D08
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Employment Status Codes for Module D:

Code 1: Employment status	Code 4: Main Occupation	
Worked for pay (salary, wage, self-employed: see code 5 categories)1	Wage labor	Driver/Boda boda25
Worked without pay (apprentice, family business, agriculture own land)2	Agricultural day labor1	Tailor/seamstress26
Did not work but have a job3	Factory worker2	Potter/brickmaker27
Did not work but looked for a job4	Transport worker (e.g. bus/truck helper)3	Blacksmith28
	Earth work labor4	Welder29
Did not work because:	Construction labor5	Hair cutter30
Only studied (student)5	Sweeper6	Cobbler31
Too young (not student)6	Scavenger7	Clothes washer32
Too old/retired7	Tea garden worker8	Repairman (appliances)33
Home/household work (incl live-in servant)8	Apprentice9	Carpenter34
Disabled/invalid9	Other Wage labour10	Mason35
Don't need to10	Salaried worker	Contractor36
Other (specify)11	Government/ parastatal11	Doctor/Engineer37
	Private enterprise (e.g. sales person, manager)12	Herbal doctor38
	House maid13	Lawyer/deed writer/39
	Teacher (Primary school)14	House tutor40
	Teacher (High school)15	Religious leader (Imam/ Muazzem/ Paster)41
	Teacher (College/university)16	Plumber42
	NGO worker17	Electrician43
	Other salaried worker18	Mechanic (vehicles/bike)44
	Self-employment	Midwife45
	Milk collector19	Beggar46
	Feed supplier20	Production
	Animal Breeder21	Food Processing47
	Veterinary doctor22	Brewer/alcohol processing48
	Para veterinary doctor23	Handicrafts49
	Fisherman24	Other small industry50
		Trader
		Small trader (roadside stand or stall)51
		Medium trader (shop or small store)52
		Large trader (large shop or whole sale)53
		Farming
		Working own farm (crop production)54
		Share cropper (crop production)55
		Fish farming/fish pond56
		Raising poultry57
		Raising livestock58
		<i>Other self-employed (specify)59</i>
		<i>No primary or secondary occupation98</i>

MODULE C. DWELLING CHARACTERISTICS; Respondent ID:

C01. ENUMERATOR: OBSERVE (DO NOT ASK) Roof top material (outer covering): (Code 1)		C10. What is the main source of water for general use of the household? (Code 6)	
C02. ENUMERATOR: OBSERVE (DO NOT ASK) Floor material: (Code 2)		C14. Does this dwelling have access to electricity? 1=Yes ; 2=No	
C03. ENUMERATOR: OBSERVE (DO NOT ASK) State of the dwelling: (Code 3)			
C06. How many rooms are there in this dwelling? (Do not consider bathrooms, hallways, garage, cellar for example)		C16. What is the main source of cooking fuel for this household? (Code 9)	
C07. How many rooms are used exclusively for sleeping?			
C08. What is the main type of toilets your household uses? (Code 5)			

Code 1: (C01) Type of roof	Code 2: (C02) Type of floor	Code 3: (C03) State of dwelling	Code 4: (C05) Ownership	Code 5: (C08) Type of toilet
Tile1 Wood2 Corrugated metal3 Plastic sheeting4 Thatched/vegetable matter/sticks...5 Mud/cow dung6 Other, specify7	Earth/mud1 Concrete/flag stone/cement2 Tile/bricks3 Wood4 Other, specify5	In excellent repair, no sign of wear1 In good shape, some minor wear-and-tear or damage2 In moderate condition, some damage and moderate wear-and-tear3 In poor shape, much damage4 In very bad shape5	Rented1 Owned2 Borrowed (no payment)3 Other, specify4	Flush, shared1 Flush, private2 Ventilated improved pit latrine (VIP)3 Pit latrine4 Community toilet5 Pan / bucket6 No toilet7 Other, specify8
Code 6: (C10/C12) Water source	Code 9: (C16) Cooking fuel			
Piped into dwelling1 Piped into plot/yard2 Public tap (someone else's private tap)3 Tubewell/borehole4 Protected dug well5 Protected spring6 Rain water collection7 Unprotected dug well/springs8 River/ponds/streams9 Tankers-truck/vendor10 Bottled water11 Other, specify12	Electricity1 Piped or liquid propane gas (biogas)2 Kerosene3 Charcoal4 Firewood5 Animal dung6 Agricultural crop residue7 Other, specify8			

MODULE E. LAND AND AGRICULTURE Enumerator: Ask this section to the member with most knowledge about household land and agriculture. Respondent ID:

READ: Now I am going to ask you a series of questions about the land your household lives on, uses for productive purposes-- that is leases or sharecrops, owns or rents out. I would like you to consider not only the land your household uses now, but also the land your household may have used during the last growing season. Please start with the piece of land closest to your residence and move to the piece furthest from your residence. . By piece of land, I mean one continuous piece, which is used predominantly for the same purpose and managed by the same person or group of people. Include the homestead and home garden production.

Piece No.	What is the piece name?	What is the area of [PIECE]?		What is the tenure status of the [PIECE]?	Who owns [PIECE]?			Whose name is on the title or other document of [PIECE]?			What is the land ownership status of [PIECE]?	If you made any improvements on [PIECE] (such as irrigation, building structures, etc) in the last 12 months, who made the decision to make the improvement?	If you were to buy a similar plot as [PIECE] today, how much would you pay (counting all improvements)?	What was the main use of [PIECE] during the last growing season?		
		a. Area	b. Unit		Code 2 ↓			Code 4 ↓							Code 4 ↓	
ID	Piece Name	E01a	E01b	E02	E03a	E03b	E03c	E04a	E04b	E04c	E05	E06a	E06b	E06c	E07	E08
1																
2																
3																
4																
5																
6																
7																
8																

CODE 1: UNIT	CODE 2: Tenure Status	CODE 3: Land ownership	CODE 4: Decision making	CODE 5: Use status
Hectares 1	Government/state land 1	Owner operated 1	List up to three household IDs with the primary decision maker listed first	Agriculture/crop production 1
Square meters 2	Customary 2	Borrowed (cash) 2		Grazing for livestock 2
Acres 3	Freehold 3	Sharecropped in 3		Homestead/ house plot 3
Square feet 4	Leasehold 4	Borrowed (no payment) 4	Household jointly 29	Bush 4
Conversion factors:	Mailo 5	Rented out (cash) 5	Outside household male 30	Commercial/non ag enterprise 5
1 hectare = 2.47 acres	Other (specify) 6	Sharecropped out 6	Outside household female 31	Fallow 6
1 meter sq = 0.000245 acres	Don't know 97	Lending out (no payment) 7	Government or other institution 32	Other (specify) 7
1 foot = 0.30 meters		Kibanja 8	Cian/family (outside household) 33	
1 yard = 0.91 meters		Other (specify) 9	Don't know 97	
1 km = 0.62 miles			Not applicable/decision not made 98	
1 ataka/katala/omwigo = 10 ft				

MODULE H: CONSUMPTION AND CONSUMPTION HABITS *Enumerator: Ask this section to the female head/spouse or member who has the most knowledge on food preparation. (This section should be administered to women only, ask at the end of the individual WEAI)*

Respondent ID:

Question	Code	Response
H01 In the past 4 weeks was there ever no food to eat of any kind in your house because of lack of resources to get food?	1 = Yes 2 = No (if No >>H03)	
H02 How often did this happen in the past 4 weeks?	1 = Rarely (1-2 times) 2 = Sometimes (3-10 times) 3 = Often (> 10 times)	
H03 In the past 4 weeks did you or any household member go to sleep at night hungry because there was not enough food?	1 = Yes 2 = No (if No >>H05)	
H04 How often did this happen in the past 4 weeks?	1 = Rarely (1-2 times) 2 = Sometimes (3-10 times) 3 = Often (> 10 times)	
H05 In the past 4 weeks did you or any household member go a whole day and night without eating anything at all because there was not enough food?	1 = Yes 2 = No (if No >>H07)	
H06 How often did this happen in the past 4 weeks?	1 = Rarely (1-2 times) 2 = Sometimes (3-10 times) 3 = Often (> 10 times)	

Enumerator: Explain to the respondent(s) that this part of the questionnaire is over and that you will now administer the WEAI questionnaire to the primary and secondary household respondents from the roster (Module B).

Appendix E

MODULE G. WOMEN'S EMPOWERMENT IN AGRICULTURE INDEX 2.0 version

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 B) 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
G1.01. HOUSEHOLD IDENTIFICATION:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	G1.05. OUTCOME OF INTERVIEW:	COMPLETED.....1 HOUSEHOLD MEMBER TOO ILL TO RESPOND/COGNITIVELY IMPAIRED.....2 RESPONDENT NOT AT HOME/TEMPORARILY UNAVAILABLE...3 RESPONDENT NOT AT HOME/EXTENDED ABSENCE.....4 REFUSED.....5 COULD NOT LOCATE.....6
G1.02. NAME OF RESPONDENT CURRENTLY BEING INTERVIEWED (ID CODE FROM ROSTER IN SECTION B HOUSEHOLD ROSTER):	<input type="checkbox"/> <input type="checkbox"/>	G1.06. ABILITY TO BE INTERVIEWED ALONE:	ALONE.....1 WITH ADULT FEMALES PRESENT.....2 WITH ADULT MALES PRESENT.....3 WITH ADULTS MIXED SEX PRESENT.....4 WITH CHILDREN PRESENT.....5 WITH ADULTS MIXED SEX AND CHILDREN PRESENT.....6
SURNAME, FIRST NAME:			
G1.03. SEX OF RESPONDENT:	MALE.....1 FEMALE.....2		
G1.04. TYPE OF HOUSEHOLD	MALE AND FEMALE ADULT.....1 FEMALE ADULT ONLY.....2		

TIME CHECK: []: []: [] CIRCLE ONE: AM/PM 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

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RESPONDENT ID CODE [] [] [] []

"Now I'd like to ask you some questions about your participation in certain types of work activities and on making decisions on various aspects of household life"

Did you yourself participate in [ACTIVITY] in the past 12 months (that is, during the last [one/two] cropping seasons), from [PRESENT MONTH] last year to [PRESENT MONTH] this year?

When decisions are made regarding [ACTIVITY], who is it that normally takes the decision? CIRCLE ALL APPLICABLE IF THE RESPONSE IS SELF ONLY SKIP TO QUESTION G2.05

How much input did you have in making decisions about [ACTIVITY]? USE DECISION CODES FOR G2.03/G2.05 IF NO DECISION MADE, ENTER 98 AND MOVE TO THE NEXT ACTIVITY

To what extent do you feel you can make your own personal decisions regarding [ACTIVITY] if you wanted to? CIRCLE ONE

How much input did you have in decisions on the use of income generated from [ACTIVITY] USE CODES FOR G2.03/G2.05

ACTIVITY CODE	ACTIVITY DESCRIPTION	G2.01	G2.02	G2.03	G2.04	G2.05
A	Food crop farming: These are crops that are grown primarily for household food consumption	YES 1 NO 2 → ACTIVITY B	SELF 1 SPOUSE 2 OTHER HH MEMBER 3 OTHER NON-HH MEMBER 4 NOT APPLICABLE 98 → NEXT ACTIVITY		NOT AT ALL 1 SMALL EXTENT 2 MEDIUM EXTENT 3 TO A HIGH EXTENT 4	
B	Cash crop farming: These are crops that are grown primarily for sale in the market	YES 1 NO 2 → ACTIVITY C	SELF 1 SPOUSE 2 OTHER HH MEMBER 3 OTHER NON-HH MEMBER 4 NOT APPLICABLE 98 → NEXT ACTIVITY		NOT AT ALL 1 SMALL EXTENT 2 MEDIUM EXTENT 3 TO A HIGH EXTENT 4	
C	Livestock raising	YES 1 NO 2 → ACTIVITY D	SELF 1 SPOUSE 2 OTHER HH MEMBER 3 OTHER NON-HH MEMBER 4 NOT APPLICABLE 98 → NEXT ACTIVITY		NOT AT ALL 1 SMALL EXTENT 2 MEDIUM EXTENT 3 TO A HIGH EXTENT 4	
D	Non-farm economic activities. This would include things like running a small business, self-employment, buy-and-sell	YES 1 NO 2 → ACTIVITY E	SELF 1 SPOUSE 2 OTHER HH MEMBER 3 OTHER NON-HH MEMBER 4 NOT APPLICABLE 98 → NEXT ACTIVITY		NOT AT ALL 1 SMALL EXTENT 2 MEDIUM EXTENT 3 TO A HIGH EXTENT 4	

G2.03/G2.05 DECISION CODES:
 NO INPUT OR INPUT IN FEW DECISIONS 01
 INPUT INTO SOME DECISIONS 02
 INPUT INTO MOST OR ALL DECISIONS 03
 NO DECISION MADE 98

	Did you yourself participate in [ACTIVITY] in the past 12 months (that is, during the last [one/two] cropping seasons), from [PRESENT MONTH] last year to [PRESENT MONTH] this year?	When decisions are made regarding [ACTIVITY], who is it that normally takes the decision? CIRCLE ALL APPLICABLE: IF THE RESPONSE IS SELF ONLY SKIP TO QUESTION G2.05	How much input did you have in making decisions about [ACTIVITY]? USE DECISION CODES FOR G2.03/G2.05 IF NO DECISION MADE, ENTER 98 AND MOVE TO THE NEXT ACTIVITY	To what extent do you feel you can make your own personal decisions regarding [ACTIVITY] if you wanted) to? CIRCLE ONE	How much input did you have in decisions on the use of income generated from [ACTIVITY] USE CODES FOR G2.03/G2.05	"Now I'd like to ask you some questions about your participation in certain types of work activities and on making decisions on various aspects of household life"
ACTIVITY CODE	ACTIVITY DESCRIPTION	G2.01	G2.02	G2.03	G2.04	G2.05
E	Wage and salary employment. This could be work that is paid for in cash or in-kind, including both agriculture and other wage work	YES.....1 NO.....2 → ACTIVITY F	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98 → NEXT ACTIVITY		NOT AT ALL.....1 SMALL EXTENT.....2 MEDIUM EXTENT.....3 TO A HIGH EXTENT.....4	
F	Fishing or fishpond culture	YES.....1 NO.....2 → ACTIVITY G	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98 → NEXT ACTIVITY		NOT AT ALL.....1 SMALL EXTENT.....2 MEDIUM EXTENT.....3 TO A HIGH EXTENT.....4	
G	Major household expenditures (such as a large appliance for the house like refrigerator)		SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98 → NEXT ACTIVITY		NOT AT ALL.....1 SMALL EXTENT.....2 MEDIUM EXTENT.....3 TO A HIGH EXTENT.....4	
H	Minor household expenditures (such as food for daily consumption or other household needs)		SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98 → MODULE G3(A)		NOT AT ALL.....1 SMALL EXTENT.....2 MEDIUM EXTENT.....3 TO A HIGH EXTENT.....4	
G2.03/G2.05 DECISION CODES:						
NO INPUT OR INPUT IN FEW DECISIONS.....01						
INPUT INTO SOME DECISIONS.....02						
INPUT INTO MOST OR ALL DECISIONS.....03						
NO DECISION MADE.....98						

	"Now I'd like to ask you about your household's access to and ownership of a number of items that could be used to generate income."	Does anyone in your household currently have any [ITEM]?	Do you own any of the item?	Who would you say can decide whether to sell, give away, mortgage or rent [ITEM] most of the time?	Who would you say can decide whether to purchase a new [ITEM] most of the time?
PRODUCTIVE CAPITAL ¹		G3.01	G3.02	G3.03	G3.04
A	Agricultural land other than fish pond (pieces/plots)	YES.....1 NO.....2 → ITEM B	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
B	Large livestock (oxen, cattle)	YES.....1 NO.....2 → ITEM C	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
C	Small livestock (goats, pigs, sheep)	YES.....1 NO.....2 → ITEM D	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
D	Chickens, Ducks, Turkeys, Pigeons	YES.....1 NO.....2 → ITEM E	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
E	Fish pond or fishing equipment	YES.....1 NO.....2 → ITEM F	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
F	Farm equipment (non-mechanized: hand tools, animal-drawn plough)	YES.....1 NO.....2 → ITEM G	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	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, treadle pump)	YES.....1 NO.....2 → ITEM H	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 PARTNER/SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98

¹ 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.

"Now I'd like to ask you about your household's access to and ownership of a number of items that could be used to generate income."		Does anyone in your household currently have any [ITEM]?	Do you own any of the item?	Who would you say can decide whether to sell, give away, mortgage or rent [ITEM] most of the time?	Who would you say can decide whether to purchase a new [ITEM] most of the time?
PRODUCTIVE CAPITAL¹		G3.01	G3.02	G3.03	G3.04
H	Nonfarm business equipment (solar panels used for recharging, sewing machine, brewing equipment, fryers)	YES.....1 NO.....2 → ITEM I	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3		
I	House or other structures	YES.....1 NO.....2 → ITEM J	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3		
J	Large consumer durables (refrigerator, TV, sofa)	YES.....1 NO.....2 → ITEM K	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3		
K	Small consumer durables (radio, cookware)	YES.....1 NO.....2 → ITEM L	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3		
L	Cell phone	YES.....1 NO.....2 → ITEM M	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3		
M	Other land not used for agricultural purposes (pieces/plots, residential or commercial land)	YES.....1 NO.....2 → ITEM N	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3		
N	Means of transportation (bicycle, motorcycle, car)	YES.....1 NO.....2 → MODULE G3(B)	YES, SOLELY.....1 YES, JOINTLY.....2 NO.....3		

LENDING SOURCE NAMES ²		G3.05	G3.06	G3.07	G3.08
"Next I'd like to ask about your household's experience with borrowing money or other items in the past 12 months."		Would you or anyone in your household be able to take a loan or borrow cash/in-kind from [SOURCE] if you wanted to?	Has anyone in your household taken any loans or borrowed cash/in-kind from [SOURCE] in the past 12 months? CIRCLE ONE	Who made the decision to borrow from [SOURCE] most of the time? CIRCLE ALL APPLICABLE	Who makes the decision about what to do with the money/item borrowed from [SOURCE] most of the time? CIRCLE ALL APPLICABLE
A	Non-governmental organization (NGO)	YES.....1 NO.....2 → NEXT SOURCE MAYBE.....3	YES, CASH.....1 YES, IN-KIND.....2 YES, CASH AND IN-KIND.....3 NO.....4 → NEXT SOURCE DON'T KNOW.....97	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
B	Formal lender (bank/financial institution)	YES.....1 NO.....2 → NEXT SOURCE MAYBE.....3	YES, CASH.....1 YES, IN-KIND.....2 YES, CASH AND IN-KIND.....3 NO.....4 → NEXT SOURCE DON'T KNOW.....97	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
C	Informal lender	YES.....1 NO.....2 → NEXT SOURCE MAYBE.....3	YES, CASH.....1 YES, IN-KIND.....2 YES, CASH AND IN-KIND.....3 NO.....4 → NEXT SOURCE DON'T KNOW.....97	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
D	Friends or relatives	YES.....1 NO.....2 → NEXT SOURCE MAYBE.....3	YES, CASH.....1 YES, IN-KIND.....2 YES, CASH AND IN-KIND.....3 NO.....4 → NEXT SOURCE DON'T KNOW.....97	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
E	Group based micro-finance or lending including VSLAs / SACCOS	YES.....1 NO.....2 → NEXT SOURCE MAYBE.....3	YES, CASH.....1 YES, IN-KIND.....2 YES, CASH AND IN-KIND.....3 NO.....4 → NEXT SOURCE DON'T KNOW.....97	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98
F	Informal credit/savings groups such as merry-go-rounds, tonlines, funeral societies, etc.	YES.....1 NO.....2 → NEXT SOURCE MAYBE.....3	YES, CASH.....1 YES, IN-KIND.....2 YES, CASH AND IN-KIND.....3 NO.....4 → NEXT SOURCE DON'T KNOW.....97	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98	SELF.....1 SPOUSE.....2 OTHER HH MEMBER.....3 OTHER NON-HH MEMBER.....4 NOT APPLICABLE.....98

² To adapt to country context, locally relevant examples may be given within lending sources categories.

"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)
G4.A1	"PERSON'S NAME/ can't grow other types of crops here for consumption and sale in market. These are the only crops that grow here."	Are you like this person?	Yes.....1 → Question 2 No.....2 → Question 3	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same.....2 → Skip to G4.A2	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
G4.A2	"PERSON'S NAME/ is a farmer and grows crops – [INSERT LOCAL CROPS]– 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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same.....2 → Skip to G4.A3	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same.....2 → Skip to G4.A4	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
A	The types of crops to grow for consumption and sale in market						

STORY	QUESTION 1	RESPONSE	QUESTION 2	RESPONSE (CIRCLE ONE)	QUESTION 3	RESPONSE (CIRCLE ONE)	STORY
	G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same....2 → Skip to G4.B1	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
	G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same....2 → Skip to G4.B2	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
	G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same....2 → Skip to G4.B3	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
B Taking crops to the market (or not)	G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same....2 → Skip to G4.B4	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2

STORY	QUESTION 1	RESPONSE	QUESTION 2	RESPONSE (CIRCLE ONE)	QUESTION 3	RESPONSE (CIRCLE ONE)	STORY
	G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same.....2 → Skip to G4.C1	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
	G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same.....2 → Skip to G4.C2	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
	G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same.....2 → Skip to G4.C3	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2
C Livestock raising	G4.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?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same.....2 → Skip to G4.C4	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2

STORY	QUESTION 1	RESPONSE	QUESTION 2	RESPONSE (CIRCLE ONE)	QUESTION 3	RESPONSE (CIRCLE ONE)	STORY
	G4.C4 <i>"[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."</i>	Are you like this person?	Yes.....1 No.....2	Are you completely the same or somewhat the same?	Completely the same.....1 Somewhat the same.....2 → Skip to Module G5	Are you completely different or somewhat different?	Completely different.....1 Somewhat different.....2

TIME CHECK: []:[]:[] CIRCLE ONE: AM/PM MODULE G5: TIME ALLOCATION

		HOURS	CIRCLE ONE	HOURS
<p>G5.01: Now I'd like to ask you some questions regarding how you've spent your time over the last week and whether or not this was typical.</p> <p>ENUMERATOR NOTE: THERE ARE 168 HOURS/WEEK.</p>		<p>In the last 7 days, how much time in hours did you spend on [ACTIVITY]?</p>		<p>Did you spend a usual amount of time on [ACTIVITY] in the last 7 days?</p>
				<p>Since the last week was not usual, within the last 6 months how much time do you usually spend on [ACTIVITY] per week?</p>
A	Farming	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
B	Fetching water	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
C	Cooking	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
D	Care for children/adults/elderly	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
E	Work as employed (incl casual and salaried labor)	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
F	Own business work	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
G	Livestock/fishing	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
H	Shopping/getting service (including health services)	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
I	Weaving/sewing/textile care	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>
J	Other domestic work	<input type="text"/> <input type="text"/> <input type="text"/>	Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98	<input type="text"/> <input type="text"/> <input type="text"/>

K	Fetching wood																				Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98			
L	Traveling and commuting																				Yes.....1 → NEXT ACTIVITY No.....2 N/A.....98			

TIME CHECK: []:[]: [] [] CIRCLE ONE: AM/PM

G5.02: 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 ACTIVITY CAN BE MARKED FOR EACH TIME PERIOD BY DRAWING A LINE THROUGH THAT ACTIVITY.

"Now I'd like to ask you about how you spent your time during the past 24 hours. We'll begin from yesterday morning, and continue through this morning. This will be a detailed accounting. I'm interested in everything you do (i.e. resting, eating, personal care, work inside and outside the home, caring for children, cooking, shopping, socializing, etc.), even if it doesn't take you much time."

		Night			Morning					Day				
		4	5	6	7	8	9	10	11	12	13	14	15	
A	Sleeping and resting													
B	Eating and drinking													
C	Personal care													
D	School (also homework)													
E	Work as employed													
F	Own business work													
G	Farming/livestock/fishing													
J	Shopping/getting service (incl health services)													
K	Weaving, sewing, tax/tile care													
L	Cooking													
M	Domestic work (incl fetching wood and water)													
N	Care for children/adults/elderly													
P	Travelling and commuting													
Q	Watching TV/listening to radio/reading													
T	Exercising													
U	Social activities and hobbies													
W	Religious activities													
X	Other, specify...													

MODULE G5 continued: TIME ALLOCATION

Activity	Evening				Night							
	16	17	18	19	20	21	22	23	24	1	2	3
A Sleeping and resting												
B Eating and drinking												
C Personal care												
D School (also homework)												
E Work as employed												
F Own business work												
G Farming/livestock/fishing												
J Shopping/getting service (incl health services)												
K Weaving, sewing, textile care												
L Cooking												
M Domestic work (incl fetching wood and water)												
N Care for children/adults/elderly												
P Travelling and commuting												
Q Watching TV/listening to radio/reading												
T Exercising												
U Social activities and hobbies												
W Religious activities												
X Other: specify												

QNO.	QUESTION	RESPONSE
G5.03	In the last 24 hours did you work (at home or outside of the home) more than usual, about the same as usual, or less than usual?	MORE THAN USUAL.....1 ABOUT THE SAME AS USUAL.....2 LESS THAN USUAL.....3

TIME CHECK: []:[]:[] CIRCLE ONE: AM/PM

MODULE G5 continued: SATISFACTION WITH TIME ALLOCATION

QNO.	QUESTION	RESPONSE OPTIONS/INSTRUCTIONS
G5.04	<p>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.</p> <p>NOTE: LEISURE EXAMPLES SHOULD BE MODIFIED FOR LOCAL CONTEXT.</p> <p>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?</p>	<p>SATISFACTION RATING: <input type="text"/> <input type="text"/></p>

TIME CHECK: []:[]:[] CIRCLE ONE: AM/PM

MODULE G6(A): INDIVIDUAL LEADERSHIP AND INFLUENCE IN THE COMMUNITY

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

QNO.	QUESTION	RESPONSE
G6.01	Do you feel comfortable speaking up in public about anything that is important to you, your family or your community?	NO, NOT AT ALL COMFORTABLE1 YES, BUT WITH DIFFICULTY2 YES, COMFORTABLY3
G6.02	In the last three months, have you spoken up in public on anything that is important to you, your family or your community?	YES1 NO2

MODULE G6(B): 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 CATEGORIES		G6.03		G6.04	
A	Agricultural / livestock/ fisheries producer's group (including marketing groups)	YES.....1 NO.....2 DONT KNOW.....97	GROUP B	YES.....1 NO.....2	Are you an active member of this [GROUP]?
B	Water users' group	YES.....1 NO.....2 DONT KNOW.....97	GROUP C	YES.....1 NO.....2	
C	Forest users' group	YES.....1 NO.....2 DONT KNOW.....97	GROUP D	YES.....1 NO.....2	
D	Credit or microfinance group (including SACCOs/merry-go-rounds/ VSLAs)	YES.....1 NO.....2 DONT KNOW.....97	GROUP E	YES.....1 NO.....2	
E	Mutual help or insurance group (including burial societies)	YES.....1 NO.....2 DONT KNOW.....97	GROUP F	YES.....1 NO.....2	
F	Trade and business association group	YES.....1 NO.....2 DONT KNOW.....97	GROUP G	YES.....1 NO.....2	
G	Civic groups (improving community) or charitable group (helping others)	YES.....1 NO.....2 DONT KNOW.....97	GROUP H	YES.....1 NO.....2	
I	Religious group	YES.....1 NO.....2 DONT KNOW.....97	GROUP J	YES.....1 NO.....2	
J	Other [women's/men's] group (only if it does not fit into one of the other categories)	YES.....1 NO.....2 DONT KNOW.....97	GROUP K	YES.....1 NO.....2	
K	Other (SPECIFY) _____	YES.....1 NO.....2 DONT KNOW.....97		YES.....1 NO.....2	

END OF QUESTIONNAIRE. FILL OUT COVER PAGE OUTCOME G1.05.

Appendix F

Bangladesh Pilot I Missing Values Summary

Variable Summary^{a,b}

	Missing		Valid N	Mean	Std. Deviation
	N	Percent			
e13_c	799	99.9%	1		
e12_c	799	99.9%	1		
e11_c	799	99.9%	1		
e10_c	799	99.9%	1		
e09_c	799	99.9%	1		
e08_c	799	99.9%	1		
e09_j	798	99.8%	2		
e13_b	798	99.8%	2		
e12_b	798	99.8%	2		
e11_b	798	99.8%	2		
e10_b	798	99.8%	2		
e09_b	798	99.8%	2		
e08_b	798	99.8%	2		
e13_j	797	99.6%	3		
e12_j	797	99.6%	3		
e11_j	797	99.6%	3		
e10_j	797	99.6%	3		
e08_j	797	99.6%	3		
e09_e	795	99.4%	5		
d04_c	795	99.4%	5		
e09_k	793	99.1%	7		
e13_e	793	99.1%	7		
e12_e	793	99.1%	7		
e11_e	793	99.1%	7		
e10_e	793	99.1%	7		
e08_e	793	99.1%	7		
c12_e	793	99.1%	7		
c11_e	793	99.1%	7		
e09_a	792	99.0%	8		
f09_c	791	98.9%	9		
e09_f	791	98.9%	9		

e13_k	790	98.8%	10
e12_k	790	98.8%	10
e11_k	790	98.8%	10
e10_k	790	98.8%	10
e08_k	790	98.8%	10
e13_h	789	98.6%	11
e12_h	789	98.6%	11
e11_h	789	98.6%	11
e10_h	789	98.6%	11
e09_h	789	98.6%	11
e08_h	789	98.6%	11
e13_a	787	98.4%	13
e12_a	787	98.4%	13
e11_a	787	98.4%	13
e10_a	787	98.4%	13
e08_a	787	98.4%	13
e09_g	786	98.3%	14
e13_f	786	98.3%	14
e12_f	786	98.3%	14
e11_f	786	98.3%	14
e10_f	786	98.3%	14
e08_f	786	98.3%	14
d06_c	784	98.0%	16
e13_g	783	97.9%	17
e12_g	783	97.9%	17
e11_g	783	97.9%	17
e10_g	783	97.9%	17
e08_g	783	97.9%	17
d04_b	775	96.9%	25
f09_b	772	96.5%	28
c09_m	770	96.3%	30
c08_m	770	96.3%	30
c07_m	770	96.3%	30
c06_m	770	96.3%	30
c05_m	770	96.3%	30
c04_m	770	96.3%	30
c03_m	770	96.3%	30
c02_m	770	96.3%	30
c01b_m	770	96.3%	30

c12_b	769	96.1%	31
c11_b	769	96.1%	31
c09_g	765	95.6%	35
c08_g	765	95.6%	35
c07_g	765	95.6%	35
c06_g	765	95.6%	35
c05_g	765	95.6%	35
c04_g	765	95.6%	35
c03_g	765	95.6%	35
c02_g	765	95.6%	35
c01b_g	765	95.6%	35
c09_h	758	94.8%	42
c08_h	758	94.8%	42
c07_h	758	94.8%	42
c06_h	758	94.8%	42
c05_h	758	94.8%	42
c04_h	758	94.8%	42
c03_h	758	94.8%	42
c02_h	758	94.8%	42
c01b_h	758	94.8%	42
d06_b	750	93.8%	50
d04_a	741	92.6%	59
e09_i	728	91.0%	72
e13_i	695	86.9%	105
e12_i	695	86.9%	105
e11_i	695	86.9%	105
e10_i	695	86.9%	105
e08_i	695	86.9%	105
c12_c	694	86.8%	106
c11_c	694	86.8%	106
e09_d	674	84.3%	126
b03_4	672	84.0%	128
b02_4	672	84.0%	128
c16	671	83.9%	129
c15	671	83.9%	129
e13_d	651	81.4%	149
e12_d	651	81.4%	149
e11_d	651	81.4%	149
e10_d	651	81.4%	149
e08_d	651	81.4%	149

d06_a	649	81.1%	151
c12_d	631	78.9%	169
c11_d	631	78.9%	169
f09_a	627	78.4%	173
c09_n	624	78.0%	176
c08_n	624	78.0%	176
c07_n	624	78.0%	176
c06_n	624	78.0%	176
c05_n	624	78.0%	176
c04_n	624	78.0%	176
c03_n	624	78.0%	176
c02_n	624	78.0%	176
c01b_n	624	78.0%	176
c09_c	622	77.8%	178
c08_c	622	77.8%	178
c07_c	622	77.8%	178
c06_c	622	77.8%	178
c05_c	622	77.8%	178
c04_c	622	77.8%	178
c03_c	622	77.8%	178
c02_c	622	77.8%	178
c01b_c	622	77.8%	178
c12_a	605	75.6%	195
c11_a	605	75.6%	195
c09_e	603	75.4%	197
c08_e	603	75.4%	197
c07_e	603	75.4%	197
c06_e	603	75.4%	197
c05_e	603	75.4%	197
c04_e	603	75.4%	197
c03_e	603	75.4%	197
c02_e	603	75.4%	197
c01b_e	603	75.4%	197
b03_6	572	71.5%	228
b02_6	572	71.5%	228
d05_e	571	71.4%	229
b03_5	536	67.0%	264
b02_5	536	67.0%	264
b03_2	525	65.6%	275
b02_2	525	65.6%	275

g02_l	513	64.1%	287		
GPI_id	469	58.6%	331		
g02_k	467	58.4%	333		
d03_e	459	57.4%	341		
WEAI	450	56.3%	350	.761654913	.000000000
				425446	000000
GPI	450	56.3%	350	.898888707	.000000000
				160950	000000
c09_f	449	56.1%	351		
c08_f	449	56.1%	351		
c07_f	449	56.1%	351		
c06_f	449	56.1%	351		
c05_f	449	56.1%	351		
c04_f	449	56.1%	351		
c03_f	449	56.1%	351		
c01b_f	449	56.1%	351		
c02_f	448	56.0%	352		
d05_d	440	55.0%	360		
c09_b	395	49.4%	405		
c08_b	395	49.4%	405		
c07_b	395	49.4%	405		
c06_b	395	49.4%	405		
c05_b	395	49.4%	405		
c04_b	395	49.4%	405		
c03_b	395	49.4%	405		
c02_b	395	49.4%	405		
c01b_b	395	49.4%	405		
c09_j	392	49.0%	408		
c08_j	392	49.0%	408		
c07_j	392	49.0%	408		
c06_i	392	49.0%	408		
c05_j	392	49.0%	408		
c04_j	392	49.0%	408		
c03_j	392	49.0%	408		
c02_j	392	49.0%	408		
c01b_j	392	49.0%	408		
b03_1	376	47.0%	424		
b02_1	376	47.0%	424		
f11	350	43.8%	450		
f10	350	43.8%	450		

c09_a	344	43.0%	456		
c08_a	344	43.0%	456		
c07_a	344	43.0%	456		
c06_a	344	43.0%	456		
c05_a	344	43.0%	456		
c04_a	344	43.0%	456		
c03_a	344	43.0%	456		
c02_a	344	43.0%	456		
c01b_a	344	43.0%	456		
b03_3	312	39.0%	488		
b02_3	312	39.0%	488		
d05_c	304	38.0%	496		
d03_d	287	35.9%	513		
g02_h	283	35.4%	517		
c09_l	265	33.1%	535		
c08_l	265	33.1%	535		
c07_l	265	33.1%	535		
c06_l	265	33.1%	535		
c05_l	265	33.1%	535		
c04_l	265	33.1%	535		
c03_l	265	33.1%	535		
c02_l	265	33.1%	535		
c01b_l	265	33.1%	535		
g02_d	264	33.0%	536		
g02_a	233	29.1%	567		
g02_b	226	28.2%	574		
g02_c	215	26.9%	585		
g02_g	205	25.6%	595		
g02_e	205	25.6%	595		
d05_b	200	25.0%	600		
c09_d	196	24.5%	604		
c08_d	196	24.5%	604		
c07_d	196	24.5%	604		
c06_d	196	24.5%	604		
c05_d	196	24.5%	604		
c04_d	196	24.5%	604		
c03_d	196	24.5%	604		
c02_d	196	24.5%	604		
c01b_d	196	24.5%	604	9.62	10.816
g02_i	171	21.4%	629		

g02_j	167	20.9%	633		
c09_k	167	20.9%	633		
c08_k	167	20.9%	633		
c07_k	167	20.9%	633		
c06_k	167	20.9%	633		
c05_k	167	20.9%	633		
c04_k	167	20.9%	633		
c03_k	167	20.9%	633		
c02_k	167	20.9%	633		
c01b_k	167	20.9%	633	19.52	15.965
d03_c	148	18.5%	652		
g02_f	115	14.4%	685		
g02_m	110	13.8%	690		

a. Maximum number of variables shown: 1000

b. Minimum percentage of missing values for variable to be included: 10.0%

Appendix G

Uganda Pilot I Missing Values Summary

Variable Summary^{a,b}

	Missing		Valid N	Mean	Std. Deviation
	N	Percent			
e08_c	625	100.0%	0		
e08_k	623	99.7%	2		
e08_f	623	99.7%	2		
e12_c	622	99.5%	3		
e11_c	622	99.5%	3		
e10_c	622	99.5%	3		
e09_c	622	99.5%	3		
e08_h	622	99.5%	3		
e07_c	622	99.5%	3		
c12_b	622	99.5%	3		
c11_b	622	99.5%	3		
e08_g	621	99.4%	4		
b03_6	621	99.4%	4		
b02_6	621	99.4%	4		
e12_f	620	99.2%	5		
e11_f	620	99.2%	5		
e10_f	620	99.2%	5		
e09_f	620	99.2%	5		
e07_f	620	99.2%	5		
c09_e	620	99.2%	5		
c08_e	620	99.2%	5		
c07_e	620	99.2%	5		
c06_e	620	99.2%	5		
c05_e	620	99.2%	5		
c04_e	620	99.2%	5		
c03_e	620	99.2%	5		
c02_e	620	99.2%	5		
c01b_e	620	99.2%	5		
e08_j	617	98.7%	8		
e08_b	616	98.6%	9		
c09_g	616	98.6%	9		

c08_g	616	98.6%	9
c07_g	616	98.6%	9
c06_g	616	98.6%	9
c05_g	616	98.6%	9
c04_g	616	98.6%	9
c03_g	616	98.6%	9
c02_g	616	98.6%	9
c01b_g	616	98.6%	9
f09_c	615	98.4%	10
d04_c	615	98.4%	10
c12_a	615	98.4%	10
c11_a	615	98.4%	10
e10_k	612	97.9%	13
e12_k	611	97.8%	14
e11_k	611	97.8%	14
e09_k	611	97.8%	14
e09_j	611	97.8%	14
e07_k	611	97.8%	14
e12_j	610	97.6%	15
e11_j	610	97.6%	15
e10_j	610	97.6%	15
e07_j	610	97.6%	15
c12_e	609	97.4%	16
c11_e	609	97.4%	16
e11_g	607	97.1%	18
e12_g	606	97.0%	19
e10_g	606	97.0%	19
e09_g	606	97.0%	19
e07_g	606	97.0%	19
d04_b	605	96.8%	20
d06_c	602	96.3%	23
e12_b	599	95.8%	26
e11_b	599	95.8%	26
e10_b	599	95.8%	26
e09_b	599	95.8%	26
e07_b	599	95.8%	26
g02_g	598	95.7%	27
e08_i	590	94.4%	35
f09_b	583	93.3%	42
e12_h	583	93.3%	42

e11_h	582	93.1%	43
e10_h	582	93.1%	43
e09_h	582	93.1%	43
e07_h	582	93.1%	43
c12_c	581	93.0%	44
c11_c	581	93.0%	44
d06_b	579	92.6%	46
b03_5	568	90.9%	57
b02_5	568	90.9%	57
d04_a	567	90.7%	58
e08_a	552	88.3%	73
c09_j	546	87.4%	79
c08_j	546	87.4%	79
c06_j	546	87.4%	79
c05_j	546	87.4%	79
c04_j	546	87.4%	79
c03_j	546	87.4%	79
c07_j	545	87.2%	80
c02_j	545	87.2%	80
e08_e	544	87.0%	81
c01b_j	544	87.0%	81
e08_d	543	86.9%	82
e10_i	537	85.9%	88
e12_i	534	85.4%	91
e11_i	534	85.4%	91
e09_i	534	85.4%	91
e07_i	533	85.3%	92
g02_f	532	85.1%	93
g02_l	521	83.4%	104
c12_f	520	83.2%	105
c11_f	520	83.2%	105
c09_h	508	81.3%	117
c06_h	508	81.3%	117
c05_h	507	81.1%	118
c04_h	507	81.1%	118
c07_h	506	81.0%	119
c08_h	505	80.8%	120
c03_h	505	80.8%	120
c02_h	505	80.8%	120
c01b_h	505	80.8%	120

c12_d	500	80.0%	125
c11_d	500	80.0%	125
e12_e	490	78.4%	135
e11_e	488	78.1%	137
e10_e	488	78.1%	137
e09_e	488	78.1%	137
e07_e	487	77.9%	138
c16	470	75.2%	155
c15	470	75.2%	155
e12_d	466	74.6%	159
e11_d	466	74.6%	159
e10_d	466	74.6%	159
e09_d	466	74.6%	159
e07_d	466	74.6%	159
e11_a	465	74.4%	160
e12_a	464	74.2%	161
e10_a	464	74.2%	161
e09_a	464	74.2%	161
e07_a	464	74.2%	161
g02_j	462	73.9%	163
c09_m	459	73.4%	166
c03_m	458	73.3%	167
g02_k	457	73.1%	168
c08_m	456	73.0%	169
c07_m	456	73.0%	169
c06_m	456	73.0%	169
c05_m	456	73.0%	169
c04_m	456	73.0%	169
c02_m	456	73.0%	169
c01b_m	456	73.0%	169
b03_4	456	73.0%	169
b02_4	456	73.0%	169
d06_a	448	71.7%	177
g02_m	441	70.6%	184
f09_a	438	70.1%	187
c09_b	402	64.3%	223
c07_b	402	64.3%	223
c03_b	402	64.3%	223
g06_g	401	64.2%	224

c08_b	401	64.2%	224		
c06_b	401	64.2%	224		
c05_b	401	64.2%	224		
c04_b	401	64.2%	224		
c02_b	401	64.2%	224		
c01b_b	401	64.2%	224		
g05_g	400	64.0%	225		
g04_g	398	63.7%	227		
GPI_id	375	60.0%	250		
WEAI	350	56.0%	275	.799754500	.000000000
				389099	000000
GPI	350	56.0%	275	.897843360	.000000000
				900879	000000
g02_i	346	55.4%	279		
g06_f	337	53.9%	288		
g05_f	335	53.6%	290		
g02_e	335	53.6%	290		
g04_f	333	53.3%	292		
g02_h	302	48.3%	323		
g02_d	298	47.7%	327		
d05_e	288	46.1%	337		
f10	285	45.6%	340		
f11	279	44.6%	346		
c06_c	268	42.9%	357		
c03_c	267	42.7%	358		
c01b_c	267	42.7%	358		
g06_m	266	42.6%	359		
c09_c	266	42.6%	359		
c08_c	266	42.6%	359		
c07_c	266	42.6%	359		
c05_c	266	42.6%	359		
c04_c	266	42.6%	359		
c02_c	266	42.6%	359		
d05_d	265	42.4%	360		
g02_b	263	42.1%	362		
g05_m	262	41.9%	363		
c09_n	260	41.6%	365		
g04_m	259	41.4%	366		
c06_n	258	41.3%	367		
c01b_n	258	41.3%	367		

c05_n	257	41.1%	368		
c04_n	257	41.1%	368		
c03_n	257	41.1%	368		
c02_n	257	41.1%	368		
c08_n	256	41.0%	369		
c07_n	256	41.0%	369		
g02_c	252	40.3%	373		
g02_a	251	40.2%	374		
c09_l	241	38.6%	384		
b03_2	241	38.6%	384		
b02_2	241	38.6%	384		
c03_l	239	38.2%	386		
c08_l	238	38.1%	387		
c07_l	238	38.1%	387		
c06_l	238	38.1%	387		
c05_l	238	38.1%	387		
c04_l	238	38.1%	387		
c02_l	238	38.1%	387		
c01b_l	237	37.9%	388		
d05_c	233	37.3%	392		
f05	228	36.5%	397	7.54	6.748
d03_e	222	35.5%	403		
c03_d	195	31.2%	430		
c01b_d	195	31.2%	430	11.43	28.605
c09_d	194	31.0%	431		
c08_d	194	31.0%	431		
c07_d	194	31.0%	431		
c06_d	194	31.0%	431		
c05_d	194	31.0%	431		
c04_d	194	31.0%	431		
c02_d	194	31.0%	431		
d03_d	192	30.7%	433		
b03_3	188	30.1%	437		
b02_3	188	30.1%	437		
d05_b	185	29.6%	440		
c09_k	164	26.2%	461		
c08_k	164	26.2%	461		
c07_k	163	26.1%	462		
c06_k	163	26.1%	462		
c03_k	163	26.1%	462		

c05_k	162	25.9%	463		
c04_k	161	25.8%	464		
c02_k	161	25.8%	464		
c01b_k	161	25.8%	464		
d03_c	132	21.1%	493		
g06_e	131	21.0%	494		
g05_e	129	20.6%	496		
g04_e	128	20.5%	497		
d02	124	19.8%	501		
d03_b	79	12.6%	546		

a. Maximum number of variables shown: 500

b. Minimum percentage of missing values for variable to be included: 10.0%

Appendix H

WEAI Pilot II - Bangladesh
Crosstab and Chi-Square Tests for Gender and Access to and Decisions on Credit

Crosstab

Count

	g1_03_p2		Total
	1	2	
credjanydec_a 0	116	77	193
ny 1	57	98	155
Total	173	175	348

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	18.715 ^a	1	.000		
Continuity Correction ^b	17.794	1	.000		
Likelihood Ratio	18.899	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	18.661	1	.000		
N of Valid Cases	348				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 77.05.

b. Computed only for a 2x2 table

Appendix I

WEAI Pilot II - Bangladesh
Crosstab and Chi-Square Tests for Gender and Speaking in Public

Crosstab

Count

	g1_03_p2		Total
	1	2	
speakpublic_a 0	140	102	242
ny 1	33	74	107
Total	173	176	349

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	21.653 ^a	1	.000		
Continuity Correction ^b	20.586	1	.000		
Likelihood Ratio	22.085	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	21.591	1	.000		
N of Valid Cases	349				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 53.04.

b. Computed only for a 2x2 table

Appendix J

Bangladesh Pilot II Missing Values Summary

Variable Summary^{a,b}

	Missing		Valid N	Mean	Std. Deviation
	N	Percent			
g3b_08c_p2_f	453	100.0%	0		
g3b_08c_p2_e	453	100.0%	0		
g3b_07c_p2_e	453	100.0%	0		
g3a_04c_p2_n	453	100.0%	0		
g3a_04b_p2_n	453	100.0%	0		
g3a_04a_p2_n	453	100.0%	0		
g3a_03c_p2_n	453	100.0%	0		
g3a_03b_p2_n	453	100.0%	0		
g3a_03a_p2_n	453	100.0%	0		
g3a_04c_p2_m	453	100.0%	0		
g3a_04b_p2_m	453	100.0%	0		
g3a_04a_p2_m	453	100.0%	0		
g3a_03c_p2_m	453	100.0%	0		
g3a_03b_p2_m	453	100.0%	0		
g3a_03a_p2_m	453	100.0%	0		
g3a_04c_p2_l	453	100.0%	0		
g3a_04b_p2_l	453	100.0%	0		
g3a_04a_p2_l	453	100.0%	0		
g3a_03c_p2_l	453	100.0%	0		
g3a_03b_p2_l	453	100.0%	0		
g3a_03a_p2_l	453	100.0%	0		
g3a_04c_p2_k	453	100.0%	0		
g3a_04b_p2_k	453	100.0%	0		
g3a_04a_p2_k	453	100.0%	0		
g3a_03c_p2_k	453	100.0%	0		
g3a_03b_p2_k	453	100.0%	0		
g3a_03a_p2_k	453	100.0%	0		
g3a_04c_p2_j	453	100.0%	0		
g3a_04b_p2_j	453	100.0%	0		
g3a_04a_p2_j	453	100.0%	0		

g3a_03c_p2_j	453	100.0%	0
g3a_03b_p2_j	453	100.0%	0
g3a_03a_p2_j	453	100.0%	0
g3a_04c_p2_i	453	100.0%	0
g3a_04b_p2_i	453	100.0%	0
g3a_04a_p2_i	453	100.0%	0
g3a_03c_p2_i	453	100.0%	0
g3a_03b_p2_i	453	100.0%	0
g3a_03a_p2_i	453	100.0%	0
g3a_04c_p2_h	453	100.0%	0
g3a_04b_p2_h	453	100.0%	0
g3a_04a_p2_h	453	100.0%	0
g3a_03c_p2_h	453	100.0%	0
g3a_03b_p2_h	453	100.0%	0
g3a_03a_p2_h	453	100.0%	0
g3b_07c_p2_f	452	99.8%	1
g3b_08b_p2_e	452	99.8%	1
g3b_08c_p2_c	452	99.8%	1
g3b_07c_p2_c	452	99.8%	1
g3b_07b_p2_e	451	99.6%	2
g3a_04c_p2_g	451	99.6%	2
g6b_04_p2_j	450	99.3%	3
g3b_08c_p2_d	450	99.3%	3
g3a_03c_p2_g	450	99.3%	3
g3b_08b_p2_f	449	99.1%	4
g3b_08c_p2_b	449	99.1%	4
g3b_07c_p2_b	449	99.1%	4
g6b_04_p2_c	448	98.9%	5
g3a_03c_p2_c	448	98.9%	5
g3b_08a_p2_e	447	98.7%	6
g3b_07c_p2_d	447	98.7%	6
g3a_04c_p2_c	447	98.7%	6
g3b_07b_p2_f	446	98.5%	7
g3b_07a_p2_e	446	98.5%	7
g3b_08c_p2_a	446	98.5%	7
g3b_07c_p2_a	446	98.5%	7
g3a_04c_p2_f	444	98.0%	9
g3a_03c_p2_e	444	98.0%	9
g3a_03c_p2_f	443	97.8%	10
g3a_04c_p2_d	443	97.8%	10

g3a_04c_p2_e	442	97.6%	11
g3b_08a_p2_f	440	97.1%	13
g3b_07a_p2_f	440	97.1%	13
g3a_03c_p2_d	440	97.1%	13
g6b_04_p2_i	434	95.8%	19
g3a_03c_p2_b	433	95.6%	20
g3b_08b_p2_c	429	94.7%	24
g3b_07b_p2_c	428	94.5%	25
g3a_03b_p2_g	428	94.5%	25
g3a_04c_p2_b	428	94.5%	25
g3a_03c_p2_a	428	94.5%	25
g3a_02_p2_m	427	94.3%	26
g3a_04b_p2_g	426	94.0%	27
g3a_04c_p2_a	416	91.8%	37
g6b_04_p2_g	414	91.4%	39
g3b_07b_p2_b	408	90.1%	45
g3b_08b_p2_b	407	89.8%	46
g3a_03b_p2_c	407	89.8%	46
g3a_04b_p2_c	403	89.0%	50
g3b_08b_p2_d	399	88.1%	54
g3b_08a_p2_c	399	88.1%	54
g3b_07a_p2_c	399	88.1%	54
g3b_07b_p2_d	398	87.9%	55
g6b_04_p2_e	385	85.0%	68
g6b_04_p2_b	385	85.0%	68
g3a_04a_p2_g	382	84.3%	71
g3a_03a_p2_g	381	84.1%	72
g3a_02_p2_g	380	83.9%	73
g3a_04b_p2_e	373	82.3%	80
g3b_08b_p2_a	371	81.9%	82
g3a_03b_p2_e	370	81.7%	83
g3a_04a_p2_c	366	80.8%	87
g3a_03a_p2_c	365	80.6%	88
g3a_02_p2_c	365	80.6%	88
g3b_08a_p2_b	364	80.4%	89
g3b_07a_p2_b	364	80.4%	89
g3a_02_p2_h	364	80.4%	89
g3b_07b_p2_a	361	79.7%	92
g4b_a2_2_p2	360	79.5%	93
g4b_a3_2_p2	354	78.1%	99

g4c_a4_3_p2	350	77.3%	103		
g4a_a2_2_p2	345	76.2%	108		
g3b_06_p2_f	345	76.2%	108		
g3a_04b_p2_f	345	76.2%	108		
g3a_03b_p2_f	344	75.9%	109		
g4a_a1_2_p2	338	74.6%	115		
g4b_a1_2_p2	333	73.5%	120		
g3a_03b_p2_d	332	73.3%	121		
g6b_04_p2_f	331	73.1%	122		
g3b_08a_p2_d	329	72.6%	124		
g3b_07a_p2_d	329	72.6%	124		
g3b_06_p2_e	328	72.4%	125		
g4a_a4_3_p2	326	72.0%	127		
g4a_a3_2_p2	326	72.0%	127		
g4c_a2_2_p2	325	71.7%	128		
g4c_a3_2_p2	324	71.5%	129		
g4c_a1_2_p2	316	69.8%	137		
g3a_04b_p2_d	314	69.3%	139		
g3b_08a_p2_a	311	68.7%	142		
g3b_07a_p2_a	311	68.7%	142		
g3a_02_p2_n	310	68.4%	143		
g4b_a4_3_p2	303	66.9%	150		
g3a_03b_p2_b	301	66.4%	152		
g6b_04_p2_a	299	66.0%	154		
g3a_04b_p2_b	297	65.6%	156		
g3a_03b_p2_a	293	64.7%	160		
GPI_gap	283	62.5%	170	.104620170	.160359187
				27	192
GPI_id	283	62.5%	170		
WEAI	274	60.5%	179	.830714400	.000000000
					0
GPI	274	60.5%	179	.895379840	.000000000
				0	00
g3a_04b_p2_a	254	56.1%	199		
g3a_04a_p2_e	242	53.4%	211		
g3a_03a_p2_e	241	53.2%	212		
g3a_02_p2_e	241	53.2%	212		
g2_05_p2_g	234	51.7%	219		
g3a_02_p2_j	231	51.0%	222		
g2_05_p2_h	207	45.7%	246		

g3a_04a_p2_b	205	45.3%	248
g4b_a4_2_p2	204	45.0%	249
g3a_03a_p2_b	203	44.8%	250
g3a_02_p2_b	202	44.6%	251
g4c_a1_3_p2	190	41.9%	263
g4a_a3_3_p2	181	40.0%	272
g4c_a3_3_p2	180	39.7%	273
g4a_a4_2_p2	180	39.7%	273
g4c_a2_3_p2	179	39.5%	274
g4b_a1_3_p2	175	38.6%	278
g2_02c_p2_g	170	37.5%	283
g4a_a1_3_p2	167	36.9%	286
g4a_a2_3_p2	160	35.3%	293
g4c_a4_2_p2	158	34.9%	295
g6b_04_p2_h	154	34.0%	299
g3b_06_p2_c	153	33.8%	300
g2_02c_p2_h	153	33.8%	300
g4b_a3_3_p2	150	33.1%	303
g4b_a2_3_p2	144	31.8%	309
g3b_06_p2_b	135	29.8%	318
g2_02c_p2_c	129	28.5%	324
g2_02c_p2_a	121	26.7%	332
g3a_04a_p2_f	112	24.7%	341
g3a_03a_p2_f	111	24.5%	342
g3a_02_p2_f	109	24.1%	344
g3a_04a_p2_d	101	22.3%	352
g3a_03a_p2_d	100	22.1%	353
g3a_04a_p2_a	98	21.6%	355
g3a_03a_p2_a	98	21.6%	355
g3a_02_p2_d	97	21.4%	356
g3a_02_p2_a	97	21.4%	356
g6b_04_p2_d	91	20.1%	362
g2_02c_p2_b	91	20.1%	362
g3a_02_p2_l	82	18.1%	371
g2_02c_p2_f	77	17.0%	376
g3b_06_p2_a	76	16.8%	377
g3b_06_p2_d	74	16.3%	379
g2_04_p2_g	73	16.1%	380
g2_03_p2_g	73	16.1%	380
g2_02c_p2_d	67	14.8%	386

g3a_02_p2_i	63	13.9%	390		
@_5DE_score	60	13.2%	393	.211704829	.304973610
_5DE_score				5	36
@_5DE_id	60	13.2%	393		
_5DE_id					
g3a_02_p2_k	58	12.8%	395		
g2_02c_p2_e	58	12.8%	395	98.00	.000
feelinputdecagr	56	12.4%	397		
credjanydec_an	55	12.1%	398		
y					
raiprod_any	55	12.1%	398		
g2_04_p2_h	54	11.9%	399		
g2_04_p2_c	54	11.9%	399		
g2_04_p2_a	54	11.9%	399		
@_5DE_5DE	53	11.7%	400	.873264333	.056464784
				7	58
leisuretime	53	11.7%	400		
npoor_z105	53	11.7%	400		
speakpublic_an	53	11.7%	400		
y					
groupmember_	53	11.7%	400		
any					
incdec_count	53	11.7%	400		
jrightanyagr	53	11.7%	400		
jown_count	53	11.7%	400		
g3b_05_p2_f	53	11.7%	400		
g3b_05_p2_e	53	11.7%	400		
g2_03_p2_h	53	11.7%	400		
g2_04_p2_b	53	11.7%	400		
g2_02b_p2_g	52	11.5%	401		
g2_02a_p2_g	52	11.5%	401		
g2_04_p2_e	52	11.5%	401		
g2_03_p2_e	52	11.5%	401		
g2_05_p2_d	52	11.5%	401		
g2_04_p2_d	52	11.5%	401		
g2_03_p2_d	52	11.5%	401		
g2_03_p2_a	52	11.5%	401		
g6b_03_p2_j	51	11.3%	402		
g6b_03_p2_i	51	11.3%	402		
g6b_03_p2_h	51	11.3%	402		

g6b_03_p2_g	51	11.3%	402		
g6b_03_p2_f	51	11.3%	402		
g6b_03_p2_e	51	11.3%	402		
g6b_03_p2_d	51	11.3%	402		
g6b_03_p2_c	51	11.3%	402		
g6b_03_p2_b	51	11.3%	402		
g6b_03_p2_a	51	11.3%	402		
g6a_02_p2	51	11.3%	402		
g6a_01_p2	51	11.3%	402		
g5_04_p2	51	11.3%	402		
g503_p2	51	11.3%	402		
daily_work2	51	11.3%	402	8.37971217 762	4.47140656 6000
daily_work1	51	11.3%	402	10.4015316 1636	5.49615494 5473
time7_2	51	11.3%	402	58.6579850 74626300	31.2998458 90800660
time7_1	51	11.3%	402	72.8107213 92975100	38.4730845 74069790
g4c_a4_1_p2	51	11.3%	402		
g4c_a3_1_p2	51	11.3%	402		
g4c_a2_1_p2	51	11.3%	402		
g4c_a1_1_p2	51	11.3%	402		
g4b_a4_1_p2	51	11.3%	402		
g4b_a3_1_p2	51	11.3%	402		
g4b_a2_1_p2	51	11.3%	402		
g4b_a1_1_p2	51	11.3%	402		
g4a_a4_1_p2	51	11.3%	402		
g4a_a3_1_p2	51	11.3%	402		
g4a_a2_1_p2	51	11.3%	402		
g4a_a1_1_p2	51	11.3%	402		
g1_01_p2	51	11.3%	402	223.83	129.337
g3b_05_p2_d	51	11.3%	402		
g3b_05_p2_c	51	11.3%	402		
g3b_05_p2_b	51	11.3%	402		
g3b_05_p2_a	51	11.3%	402		
g3a_01_p2_n	51	11.3%	402		
g3a_01_p2_m	51	11.3%	402		
g3a_01_p2_l	51	11.3%	402		
g3a_01_p2_k	51	11.3%	402		

g3a_01_p2_j	51	11.3%	402
g3a_01_p2_i	51	11.3%	402
g3a_01_p2_h	51	11.3%	402
g3a_01_p2_g	51	11.3%	402
g3a_01_p2_f	51	11.3%	402
g3a_01_p2_e	51	11.3%	402
g3a_01_p2_d	51	11.3%	402
g3a_01_p2_c	51	11.3%	402
g3a_01_p2_b	51	11.3%	402
g3a_01_p2_a	51	11.3%	402
g2_02b_p2_h	51	11.3%	402
g2_02a_p2_h	51	11.3%	402
g2_01_p2_h	51	11.3%	402
g2_01_p2_g	51	11.3%	402
g2_05_p2_f	51	11.3%	402
g2_04_p2_f	51	11.3%	402
g2_03_p2_f	51	11.3%	402
g2_02b_p2_f	51	11.3%	402
g2_02a_p2_f	51	11.3%	402
g2_01_p2_f	51	11.3%	402
g2_05_p2_e	51	11.3%	402
g2_02b_p2_e	51	11.3%	402
g2_02a_p2_e	51	11.3%	402
g2_01_p2_e	51	11.3%	402
g2_02b_p2_d	51	11.3%	402
g2_02a_p2_d	51	11.3%	402
g2_01_p2_d	51	11.3%	402
g2_05_p2_c	51	11.3%	402
g2_03_p2_c	51	11.3%	402
g2_02b_p2_c	51	11.3%	402
g2_02a_p2_c	51	11.3%	402
g2_01_p2_c	51	11.3%	402
g2_05_p2_b	51	11.3%	402
g2_03_p2_b	51	11.3%	402
g2_02b_p2_b	51	11.3%	402
g2_02a_p2_b	51	11.3%	402
g2_01_p2_b	51	11.3%	402
g2_05_p2_a	51	11.3%	402
g2_02b_p2_a	51	11.3%	402
g2_02a_p2_a	51	11.3%	402

g2_01_p2_a	51	11.3%	402		
g1_06_p2	51	11.3%	402		
g1_03_p2	51	11.3%	402		
hh_type	51	11.3%	402		
pilot	51	11.3%	402		
cluster	51	11.3%	402	13.01	7.206

a. Maximum number of variables shown: 500

b. Minimum percentage of missing values for variable to be included:
10.0%

Appendix K

WEAI Pilot II - Uganda
Crosstab and Chi-Square Tests for Gender and Workload

Crosstab

Count

		g1_03_p2		Total
		1	2	
npoor_z10	0	114	96	210
	5	28	53	81
	1			
Total		142	149	291

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	9.096 ^a	1	.003		
Continuity Correction ^b	8.324	1	.004		
Likelihood Ratio	9.220	1	.002		
Fisher's Exact Test				.003	.002
Linear-by-Linear Association	9.065	1	.003		
N of Valid Cases	291				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 39.53.

b. Computed only for a 2x2 table

Appendix L

WEAI Pilot II - Uganda
Crosstab and Chi-Square Tests regarding Inadequate Achievements for Both Men and Women in Access to and Decisions over Credit and Leisure
credjanydec_any * g1_03_p2

Crosstab

Count

		g1_03_p2		Total
		1	2	
credjanydec_a	0	84	86	170
ny	1	52	61	113
Total		136	147	283

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.313 ^a	1	.576		
Continuity Correction ^b	.192	1	.661		
Likelihood Ratio	.313	1	.576		
Fisher's Exact Test				.628	.331
Linear-by-Linear Association	.312	1	.576		
N of Valid Cases	283				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 54.30.

b. Computed only for a 2x2 table

leisuretime * g1_03_p2

Crosstab

Count

	g1_03_p2		Total
	1	2	
leisuretime 0	98	89	187
1	45	60	105
Total	143	149	292

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.454 ^a	1	.117		
Continuity Correction ^b	2.087	1	.149		
Likelihood Ratio	2.460	1	.117		
Fisher's Exact Test				.143	.074
Linear-by-Linear Association	2.445	1	.118		
N of Valid Cases	292				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 51.42.

b. Computed only for a 2x2 table

Appendix M

Uganda Pilot II Missing Values Summary

Variable Summary^{a,b}

	Missing		Valid N	Mean	Std. Deviation
	N	Percent			
g3b_08c_p2_e	419	100.0%	0		
g3b_08c_p2_d	419	100.0%	0		
g3b_08c_p2_c	419	100.0%	0		
g3b_08c_p2_b	419	100.0%	0		
g3b_08c_p2_a	419	100.0%	0		
g3a_04c_p2_i	419	100.0%	0		
g3a_04b_p2_i	419	100.0%	0		
g3a_03c_p2_i	419	100.0%	0		
g3a_04c_p2_h	419	100.0%	0		
g3a_04b_p2_h	419	100.0%	0		
g3a_03c_p2_h	419	100.0%	0		
g3a_04c_p2_g	419	100.0%	0		
g3a_04c_p2_n	419	100.0%	0		
g3a_04b_p2_n	419	100.0%	0		
g3a_03c_p2_n	419	100.0%	0		
g3a_03b_p2_n	419	100.0%	0		
g3a_04c_p2_m	419	100.0%	0		
g3a_04b_p2_m	419	100.0%	0		
g3a_03c_p2_m	419	100.0%	0		
g3a_03b_p2_m	419	100.0%	0		
g3a_04c_p2_l	419	100.0%	0		
g3a_04b_p2_l	419	100.0%	0		
g3a_03c_p2_l	419	100.0%	0		
g3a_03b_p2_l	419	100.0%	0		
g3a_04c_p2_k	419	100.0%	0		
g3a_04b_p2_k	419	100.0%	0		
g3a_03c_p2_k	419	100.0%	0		
g3a_04c_p2_j	419	100.0%	0		
g3a_04b_p2_j	419	100.0%	0		
g3a_03c_p2_j	419	100.0%	0		

g3a_03b_p2_j	419	100.0%	0		
g3b_07c_p2_e	418	99.8%	1	98.00	.
g3b_07c_p2_d	418	99.8%	1		
g3b_07c_p2_c	418	99.8%	1	98.00	.
g3b_07c_p2_b	418	99.8%	1	98.00	.
g3b_07c_p2_a	418	99.8%	1	98.00	.
g3a_03b_p2_i	418	99.8%	1		
g3a_03b_p2_h	418	99.8%	1	98.00	.
g3a_03c_p2_g	418	99.8%	1		
g3a_04c_p2_e	418	99.8%	1		
g3a_03c_p2_e	418	99.8%	1		
g3a_03b_p2_k	418	99.8%	1		
g3b_08c_p2_f	417	99.5%	2		
g3b_07c_p2_f	417	99.5%	2		
g3a_03b_p2_e	417	99.5%	2		
g3a_03b_p2_g	416	99.3%	3		
g3b_07b_p2_a	415	99.0%	4		
g3a_04b_p2_g	415	99.0%	4		
g3a_04b_p2_e	415	99.0%	4		
g3a_02_p2_e	415	99.0%	4		
g3b_08b_p2_a	414	98.8%	5		
g3a_02_p2_g	414	98.8%	5		
g3a_04c_p2_b	414	98.8%	5		
g3b_08b_p2_c	413	98.6%	6		
g3b_07b_p2_c	413	98.6%	6		
g3a_03c_p2_c	412	98.3%	7		
g3a_03c_p2_b	412	98.3%	7		
g3b_08b_p2_b	411	98.1%	8		
g3b_07b_p2_b	411	98.1%	8		
g3a_04c_p2_c	411	98.1%	8		
g6b_04_p2_j	407	97.1%	12		
g3a_04c_p2_a	406	96.9%	13		
g3a_04c_p2_d	403	96.2%	16		
g3a_03c_p2_d	403	96.2%	16		
g3a_03c_p2_a	403	96.2%	16		
g3a_03c_p2_f	402	95.9%	17		
g3a_04c_p2_f	398	95.0%	21		
g6b_04_p2_c	388	92.6%	31		
g3b_07b_p2_f	380	90.7%	39		
g3b_07b_p2_d	377	90.0%	42		

g3b_08b_p2_f	376	89.7%	43		
g3b_08b_p2_d	374	89.3%	45		
g3a_02_p2_h	372	88.8%	47		
g3b_07b_p2_e	361	86.2%	58		
g6b_04_p2_g	359	85.7%	60		
g3b_08b_p2_e	358	85.4%	61		
g4a_a4_3_p2	357	85.2%	62		
g3a_02_p2_j	353	84.2%	66		
g3a_03b_p2_b	352	84.0%	67		
g3a_02_p2_m	345	82.3%	74		
g3a_04b_p2_b	343	81.9%	76		
g4c_a4_3_p2	340	81.1%	79		
g4b_a2_2_p2	338	80.7%	81		
g6b_04_p2_f	336	80.2%	83		
g6b_04_p2_i	334	79.7%	85		
g4c_a2_2_p2	318	75.9%	101		
g4a_a2_2_p2	318	75.9%	101		
g4b_a4_3_p2	314	74.9%	105		
g4b_a3_2_p2	314	74.9%	105		
g4c_a1_2_p2	309	73.7%	110		
g6b_04_p2_b	298	71.1%	121		
g4c_a3_2_p2	298	71.1%	121		
g3a_03b_p2_c	296	70.6%	123		
GPI_gap	287	68.5%	132	.093389182	.154396140
				07	994
GPI_id	287	68.5%	132		
g3a_04b_p2_c	287	68.5%	132		
g2_05_p2_g	287	68.5%	132		
g3a_02_p2_b	286	68.3%	133		
g3a_03b_p2_d	279	66.6%	140		
g2_02c_p2_a	277	66.1%	142		
g4b_a1_2_p2	274	65.4%	145		
g2_05_p2_h	274	65.4%	145		
g3a_04b_p2_d	272	64.9%	147		
g3a_03b_p2_a	272	64.9%	147		
g4a_a3_2_p2	267	63.7%	152		
g4a_a1_2_p2	257	61.3%	162		
g6b_04_p2_a	252	60.1%	167		
g4a_a1_3_p2	249	59.4%	170		
g3a_04b_p2_a	242	57.8%	177		

g4a_a3_3_p2	238	56.8%	181		
g2_02c_p2_g	237	56.6%	182		
WEAI	234	55.8%	185	.846737560	.000000000
				0	00
g4b_a1_3_p2	232	55.4%	187		
g3a_03b_p2_f	223	53.2%	196		
g2_02c_p2_h	222	53.0%	197		
g2_02c_p2_c	222	53.0%	197		
g6b_04_p2_h	216	51.6%	203		
g4c_a3_3_p2	209	49.9%	210		
g3a_04b_p2_f	206	49.2%	213		
g3a_02_p2_c	204	48.7%	215		
g2_02c_p2_b	203	48.4%	216		
g4c_a1_3_p2	202	48.2%	217		
g4b_a4_2_p2	198	47.3%	221		
g3a_02_p2_n	196	46.8%	223		
g3a_02_p2_l	195	46.5%	224		
GPI	193	46.1%	226	.90443900	.000000000
g4b_a3_3_p2	193	46.1%	226		
g4c_a2_3_p2	191	45.6%	228		
g6b_04_p2_e	189	45.1%	230		
g4a_a2_3_p2	185	44.2%	234		
g3a_02_p2_d	183	43.7%	236		
g4c_a4_2_p2	182	43.4%	237		
g4b_a2_3_p2	168	40.1%	251		
g6b_03_p2_j	155	37.0%	264		
g4a_a4_2_p2	151	36.0%	268		
g6b_04_p2_d	149	35.6%	270		
@_5DE_score	148	35.3%	271	.181795815	.290658207
_5DE_score				0	17
@_5DE_id	148	35.3%	271		
_5DE_id					
g3a_02_p2_i	125	29.8%	294		
g3b_06_p2_c	120	28.6%	299		
g3b_06_p2_a	120	28.6%	299		
g2_02c_p2_d	116	27.7%	303	98.00	.000
g3b_07a_p2_c	111	26.5%	308		
g3b_06_p2_b	111	26.5%	308		
g3b_06_p2_e	110	26.3%	309		
g3b_08a_p2_c	110	26.3%	309		

g3b_07a_p2_b	110	26.3%	309		
g3b_08a_p2_a	110	26.3%	309		
g3b_07a_p2_a	110	26.3%	309		
g3b_06_p2_f	109	26.0%	310		
g3b_08a_p2_b	109	26.0%	310		
g3b_07a_p2_e	107	25.5%	312		
g3b_08a_p2_e	106	25.3%	313		
g3b_08a_p2_f	105	25.1%	314		
g3b_07a_p2_f	105	25.1%	314		
g3a_02_p2_f	105	25.1%	314		
g2_02c_p2_e	104	24.8%	315		
credjanydec_an y	102	24.3%	317		
g3b_07a_p2_d	102	24.3%	317		
g3b_06_p2_d	102	24.3%	317		
g2_03_p2_h	102	24.3%	317		
g3b_08a_p2_d	101	24.1%	318		
g2_03_p2_g	101	24.1%	318		
g3a_02_p2_k	98	23.4%	321		
g2_04_p2_h	97	23.2%	322		
g2_03_p2_c	97	23.2%	322		
g3a_04a_p2_e	95	22.7%	324		
g3a_02_p2_a	95	22.7%	324		
g2_04_p2_g	94	22.4%	325		
g3a_04a_p2_n	93	22.2%	326	98.00	.000
g2_05_p2_c	93	22.2%	326		
g2_02a_p2_g	92	22.0%	327		
g6b_03_p2_h	91	21.7%	328		
g3a_04a_p2_i	91	21.7%	328	98.00	.000
g3a_04a_p2_h	91	21.7%	328	98.00	.000
g3a_04a_p2_b	91	21.7%	328		
g3a_03a_p2_n	91	21.7%	328		
g2_02a_p2_h	91	21.7%	328		
g2_04_p2_c	91	21.7%	328		
g6b_03_p2_i	90	21.5%	329		
g3a_03a_p2_e	90	21.5%	329		
g3a_03a_p2_b	90	21.5%	329		
g3a_04a_p2_m	90	21.5%	329	98.00	.000
g2_03_p2_b	90	21.5%	329		
g6b_03_p2_f	89	21.2%	330		

g6b_03_p2_d	89	21.2%	330		
g3a_03a_p2_i	89	21.2%	330		
g3a_04a_p2_l	89	21.2%	330	98.00	.000
g3a_04a_p2_k	89	21.2%	330	98.00	.000
g3a_04a_p2_j	89	21.2%	330	98.00	.000
npoor_z105	88	21.0%	331		
speakpublic_ay	88	21.0%	331		
feelinputdecagr	88	21.0%	331		
g6b_03_p2_g	88	21.0%	331		
g6b_03_p2_e	88	21.0%	331		
g6b_03_p2_c	88	21.0%	331		
g6b_03_p2_b	88	21.0%	331		
g6b_03_p2_a	88	21.0%	331		
g6a_02_p2	88	21.0%	331		
g6a_01_p2	88	21.0%	331		
g3a_03a_p2_h	88	21.0%	331		
g3a_04a_p2_c	88	21.0%	331		
g3a_03a_p2_m	88	21.0%	331	98.00	.000
g3a_03a_p2_l	88	21.0%	331		
g3a_03a_p2_k	88	21.0%	331		
g3a_03a_p2_j	88	21.0%	331		
g2_05_p2_b	88	21.0%	331		
g2_03_p2_a	88	21.0%	331		
leisuretime	87	20.8%	332		
g5_04_p2	87	20.8%	332		
g3a_04a_p2_d	87	20.8%	332		
g2_02c_p2_f	87	20.8%	332	98.00	.000
g2_04_p2_b	87	20.8%	332		
incdec_count	86	20.5%	333		
raiprod_any	86	20.5%	333		
g503_p2	86	20.5%	333		
daily_work2	86	20.5%	333	11.1711711	6.47288662
				789	690
daily_work1	86	20.5%	333	12.9682539	6.82900655
				752	216
time7_2	86	20.5%	333	78.20	45.310
time7_1	86	20.5%	333	90.78	47.803
g4c_a1_1_p2	86	20.5%	333		
g3b_05_p2_a	86	20.5%	333		

g3a_04a_p2_g	86	20.5%	333
g3a_03a_p2_g	86	20.5%	333
g2_05_p2_a	86	20.5%	333
g4c_a4_1_p2	85	20.3%	334
g4c_a3_1_p2	85	20.3%	334
g4c_a2_1_p2	85	20.3%	334
g4b_a3_1_p2	85	20.3%	334
g4b_a2_1_p2	85	20.3%	334
g4a_a2_1_p2	85	20.3%	334
g3b_05_p2_e	85	20.3%	334
g3b_05_p2_c	85	20.3%	334
g3b_05_p2_b	85	20.3%	334
g3a_01_p2_g	85	20.3%	334
g3a_04a_p2_f	85	20.3%	334
g3a_03a_p2_f	85	20.3%	334
g3a_03a_p2_d	85	20.3%	334
g3a_03a_p2_c	85	20.3%	334
g3a_04a_p2_a	85	20.3%	334
g3a_03a_p2_a	85	20.3%	334
g2_02b_p2_g	85	20.3%	334
g2_05_p2_e	85	20.3%	334
g2_03_p2_e	85	20.3%	334
g2_04_p2_d	85	20.3%	334
g2_03_p2_d	85	20.3%	334
jrightanyagr	84	20.0%	335
jown_count	84	20.0%	335
g4b_a4_1_p2	84	20.0%	335
g4b_a1_1_p2	84	20.0%	335
g4a_a4_1_p2	84	20.0%	335
g4a_a3_1_p2	84	20.0%	335
g4a_a1_1_p2	84	20.0%	335
g3b_05_p2_f	84	20.0%	335
g3b_05_p2_d	84	20.0%	335
g3a_01_p2_i	84	20.0%	335
g3a_01_p2_h	84	20.0%	335
g3a_01_p2_f	84	20.0%	335
g3a_01_p2_e	84	20.0%	335
g3a_01_p2_d	84	20.0%	335
g3a_01_p2_c	84	20.0%	335
g3a_01_p2_b	84	20.0%	335

g3a_01_p2_n	84	20.0%	335		
g3a_01_p2_m	84	20.0%	335		
g3a_01_p2_l	84	20.0%	335		
g3a_01_p2_k	84	20.0%	335		
g3a_01_p2_j	84	20.0%	335		
g3a_01_p2_a	84	20.0%	335		
g2_02b_p2_h	84	20.0%	335		
g2_05_p2_f	84	20.0%	335		
g2_04_p2_f	84	20.0%	335		
g2_03_p2_f	84	20.0%	335		
g2_02b_p2_f	84	20.0%	335		
g2_02a_p2_f	84	20.0%	335		
g2_04_p2_e	84	20.0%	335		
g2_05_p2_d	84	20.0%	335		
g2_02b_p2_c	84	20.0%	335		
g2_02a_p2_c	84	20.0%	335		
g2_04_p2_a	84	20.0%	335		
g2_02b_p2_e	83	19.8%	336		
g2_02a_p2_e	83	19.8%	336		
g2_02b_p2_d	83	19.8%	336		
g2_02a_p2_d	83	19.8%	336		
g2_02b_p2_b	83	19.8%	336		
g2_02a_p2_b	83	19.8%	336		
g1_06_p2	83	19.8%	336		
g2_01_p2_h	82	19.6%	337		
g2_01_p2_g	82	19.6%	337		
g2_01_p2_f	82	19.6%	337		
g2_01_p2_e	82	19.6%	337		
g2_01_p2_d	82	19.6%	337		
g2_01_p2_c	82	19.6%	337		
g2_01_p2_b	82	19.6%	337		
g2_02b_p2_a	82	19.6%	337		
g2_02a_p2_a	82	19.6%	337		
g2_01_p2_a	82	19.6%	337		
pilot	82	19.6%	337		
hh_type	82	19.6%	337		
cluster	82	19.6%	337		
@_5DE_5DE	81	19.3%	338	.885699905	.052425351
				9	12
g1_03_p2	81	19.3%	338		

groupmember_ any	80	19.1%	339		
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a. Maximum number of variables shown: 500

b. Minimum percentage of missing values for variable to be included:
10.0%