Feed the Future

Survey Implementation

Document

Study Protocol

Zone of Influence Midline Survey

[COUNTRY] [YEAR]

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**INSTRUCTIONS TO SENIOR RESEARCHER:**

This document has been developed as a template to be modified for each Feed the Future ZOI Midline Survey. The content and the text have been pre-approved by the Bureau for Resilience and Food Security (RFS) and should be modified where noted. We use the following conventions in this template to indicate where modifications should or may be made:

* Where country-specific words or phrases need to be inserted, the word or concept is highlighted in yellow in the text. Substitute the appropriate word or phrase.
* Where a choice needs to be made between several text options, those options are highlighted in green. Delete the option that does not apply to your country.
* Where a section, phrase, sentence, or paragraph may need to be customized or be deleted due to irrelevance to your country or survey, instructions are provided in a comment box in the margin. Address the instructions by adding, revising, or deleting text or a table. Highlight the addition or revision or strikethrough the deletion to facilitate USAID/[COUNTRY]’s and RFS’s review. Add a note after the instruction in the comment box that explains what you did (e.g., revised, deleted).

While, in principle, you should only modify the designated parts of the protocol template, read the entire document carefully to ensure that all sections and text apply to your country. If you need to change anything other than the parts designated for modification, please use track changes to facilitate USAID/[COUNTRY]’s and RFS’s review of your changes.

# Abbreviations

A-WEAI Abbreviated Women’s Empowerment in Agriculture Index

CAPI computer-assisted personal interviewing

CSPro Census and Survey Processing System

EA enumeration area

FIES Food Insecurity Experience Scale

ICDM In-Country Data Processing Manager

IRB Institutional Review Board

P2 phase two

PBS population-based survey

PPS probability proportional to size

QCS Quality Control and Support

RFS Bureau for Resilience and Food Security

USAID United States Agency for International Development

VCC value chain commodities

ZOI Zone of Influence

# 1. Introduction

Feed the Future seeks to reduce poverty, hunger, and undernutrition among women and children, and to increase income, resilience, women’s empowerment, dietary diversity and appropriate feeding practices, and hygienic environments. Program efforts are designed to impact the population in Zones of Influence (ZOIs) in Feed the Future target countries. Progress in achieving Feed the Future’s objectives is tracked using population-based performance indicators collected at baseline then periodically thereafter.

## 1.1 Purpose of the survey

The purpose of the Feed the Future ZOI Midline Surveys is to provide the U.S. Government interagency partners, United States Agency for International Development (USAID) Bureau for Resilience and Food Security (RFS), USAID Missions, host country governments, and development partners with information on the current status of the Feed the Future ZOI-level population-based survey (PBS) indicators. The survey is designed to (1) establish the current status of selected Feed the Future phase two PBS outcome indicators in the phase two ZOI (P2-ZOI) in [COUNTRY] at midline, and (2) determine if there has been statistically significant change between midline and baseline in the selected outcome indicators at P2-ZOI population level.

This document is the study protocol for the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)]. It includes sections on the rationale for the survey; intended use of findings; study populations and catchment area; sampling methodology, including sample size and statistical power; key variables; training for study personnel; data analysis plan, including statistical methodology; data collection, information management, and analysis software; data entry, editing, and management; quality control and assurance; bias in data collection and analysis; limitations of the study; ethical considerations; overarching management; and results dissemination plans.

# 2. Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] Indicators

## 2.1 Feed the Future population-based indicators

The data to inform the following Feed the Future indicators on nutrition, agriculture, women’s empowerment, and resilience will be collected in the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)]:

* Percentage of households with access to a basic sanitation service
* Percentage of households with soap and water at a handwashing station commonly used by family members
* Percentage of households below the comparative threshold for the poorest quintile of the Asset-Based Comparative Wealth Index
* Ability to recover from shocks and stresses index
* Index of social capital at the household level
* Proportion of households that believe local government will respond effectively to future shocks and stresses
* Proportion of households participating in group-based savings, micro-finance, or lending programs
* Proportion of producers who have applied targeted improved management practices or technologies
* Prevalence of moderate and severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)
* Prevalence of children 6-23 months of age receiving a minimum acceptable diet
* Prevalence of exclusive breastfeeding of children under 6 months of age
* Prevalence of women of reproductive age consuming a diet of minimum diversity

The Feed the Future Indicator Handbook Definition Sheets provide information needed to collect data and report on the indicators.

## 2.2 Mission-specific indicators

[XX]

# 3. Procedures and methods

## 3.1 Timing of data collection

Data for the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] will be collected with the following considerations for timing:

* Post-harvest for the main crops from among the three priority value chain commodities (VCC) selected for measurement. If the harvest periods for the three main crops differ, data collection should take place after the harvest for the major staple food crop among the three VCC in terms of number of producers in the P2-ZOI
* Seasonal issues, such as major holidays or weather that impedes fieldwork
* Political and security issues, such as elections or other events, that could preclude fieldwork

These issues were carefully weighed with the USAID Mission and RFS, and it was determined that data collection for the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] will take place in [MONTHS/YEAR(S)] based on [PROVIDE RATIONALE].

Table 1: Seasonal issues affecting comparison of indicators from baseline to midline

| **Indicator** | **Dates and characteristics of season at the time of the [xx] baseline** | **Dates and characteristics of season at the time of the [xx] midline** |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Women’s empowerment in agriculture index |  |  |
| Prevalence of households with moderate or severe hunger |  |  |
| Women’s dietary diversity |  |  |
| Prevalence of children 6-23 months receiving a minimum acceptable diet |  |  |
| Prevalence of exclusive breastfeeding |  |  |

Because of seasonal differences between the phase two midline and baseline fieldwork, differences between the midline and baseline values for the following indicators will need to be interpreted with caution:

* Indicator [xx]
* Indicator [xx]

## 3.2 Projected timeframe

The workplan for preparing and implementing the ZOI Midline Survey, cleaning and analyzing data, and reporting findings is shown in Table 1. See Appendix B for the detailed Gantt chart for survey implementation.

Table 1: Milestones in the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)]

| **Milestone** | **Timing (Month)** |
| --- | --- |
| Conduct planning meetings and reach agreement on ZOI Midline Survey, including survey modules and questions | Month 1 |
| Submit high-level survey implementation plan | Month 2 |
| Customize survey instrument | Months 2–3 |
| Develop study protocol and detailed implementation plan | Months 2–3 |
| Solicit proposals for in-country subcontracts, such as for translation, data collection; negotiate subcontracts | Months 2–4 |
| Draw first stage of sample | Month 2–3 |
| Obtain official letter of introduction for community sensitization, listing, and field teams | Month 4 |
| Update protocol | Month 4 |
| Order equipment and supplies, such as tablet computers and PPE | Months 4–5 |
| Obtain in-country ethical review and approval | Months 3–4 |
| Translate and pretest survey instrument | Months 3–5 |
| List and select households | Month 6–7 |
| Ship tablet computers at least 5 weeks before the start of training | Month 5 |
| Program and test data entry program and quality control reports | Months 4–6 |
| Customize interviewer’s and supervisor’s manuals | Months 4–6 |
| Finalize training materials | Month 4–7 |
| Conduct computer-assisted personal interviewing pretest, training, and pilot test | Months 7–8 |
| Finalize survey instrument, manuals, and data entry program | Month 8 |
| Conduct and monitor fieldwork | Months 9–13 |
| Clean data and calculate sampling weights | Months 14–15 |
| Analyze data | Months 16–18 |
| Deliver results tables to RFS | Month 17–18 |
| Draft report, assuming three rounds of revisions | Months 17–19 |
| Enter values in USAID’S Development Information Solution | Month 18–19 |
| Deliver public use dataset, contingent on report approval | Months 18–19 |
| Upload final 508 compliant report on USAID’s Development Experience Clearinghouse | Months 19–20 |

## 3.3 Preparatory activities and stakeholder participation

[CONTRACTOR] staff have met with RFS, the USAID Mission, the Ministry of Agriculture, the Ministry of Health, and the central statistical office to discuss the requirements and plans for the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)]. Based on these meetings, decisions were made about the content, sample size, timing, and location of the ZOI Midline Survey.

Other key preparatory tasks will include identifying an in-country subcontractor to conduct data collection activities and executing the subcontract, with this provision:

[CONTRACTOR] will subcontract [XXX] to conduct a sole source field data collection because a market analysis demonstrates that [XXX] is the only organization that meets the criteria for the award.

or

[CONTRACTOR] will manage a free and open competition to identify a subcontractor to conduct data collection. INDICATE WHEN THE REQUEST FOR PROPOSAL WILL BE RELEASED AND PLANNED AWARD DATE.

Following is a list of criteria needed to assess the ability of local organizations to implement a survey of the size and complexity of the ZOI Midline Survey:

* Documented past performance of the organization in implementing several large-scale surveys with sample sizes of 3,000 or more households resulting in good-quality data
* Capacity of the local organization to carry out the entire survey process, including listing, training, collecting social and agricultural data, and providing supervision
* Experience of the organization in using tablet computers for data collection
* Calendar record of usual timelines for survey implementation and the organization’s ability to complete surveys on time
* Ability of the organization to staff the project, as described in Section 3.13 of this protocol
* Experience of the organization’s staff in the requisite roles defined for the ZOI Midline Survey fieldwork, as described in Section 3.13 of this protocol
* Availability of the organization to conduct training and fieldwork in the required time period

## 3.4 Geographic focus

The geographic focus of the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] data collection is the P2-ZOI. The P2-ZOI is the geographic area where Feed the Future programs are expected to have an impact on hunger, poverty, and nutrition during phase two of the Initiative.

[Paragraph on geographic coverage of the ZOI]

[Table that provides a comprehensive list of the lowest relevant level of administrative units in the ZOI (e.g., districts)]

[MAP of ZOI in [COUNTRY]

## 3.5 Study population

The Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] will focus on collecting data that reflect the characteristics of several study populations. Descriptions of the specific study populations follow.

**Households:** Data household and dwelling characteristics will be collected at the household level to inform water, sanitation, hygiene, and resilience indicators. Data on food insecurity experience in the household over the past 12 months will also be collected at the household level to inform the indicator on prevalence of households with moderate or severe food insecurity and moderate or severe hunger. The estimated number of households in the sample will be [xx].

**Children under 2 years of age:** Data about the dietary intake of infants and young children will be collected from mothers and caregivers of children under 2 years of age. These data will inform two indicators: (1) the prevalence of exclusive breastfeeding among children 0-5 months of age, and (2) the prevalence of children 6-23 months of age receiving a minimum acceptable diet. They will also allow for robust further analysis of the determinants of the nutritional status of children under 2 years of age. The estimated number of children under 2 years of age in the sample will be [xx].

**Women 15-49 years of age:** Data on the dietary intake of women 15-49 years of age will be collected to inform the indicator on women’s dietary diversity. The estimated number of women 15-49 years of age in the sample will be [xx].

**Women 18 years of age and older who are the primary female decision-maker in the household:** Women 18 years of age and older who are identified as the primary adult female decision-maker in the household will be administered survey module 6W of the questionnaire to collect data to inform the calculation of the six Abbreviated Women’s Empowerment in Agriculture Index (A-WEAI) indicators. The estimated number of households with a woman age 18 years or older in the sample will be [xx].

**Farmers 15 years of age and older who cultivated any of three selected VCC:** Men and women 15 years of age and older who were responsible for cultivating or raising one or more of the selected VCC in the 12 months preceding the survey will be administered the applicable Agricultural Technologies and Agricultural Productivity questionnaire modules. The estimated number of farmers 15 years of age and older in the sample will be [xx].

## 3.6 Sampling design

The Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] will be conducted using a representative, random sample of the entire population living in the P2-ZOI. The sample design will follow the guidelines as outlined in Sampling Guide.[[1]](#footnote-2) The ZOI Midline Survey will use a cross-sectional, multi-stage cluster sampling design. At the first stage of sampling, enumeration areas (EAs) will be selected using systematic probability proportional to size (PPS) sampling. At the second stage, segments will be selected using PPS if the cluster size requires segmentation—that is, EAs containing more than 300 households will be segmented, and 1 segment will be randomly selected. A household listing operation will be conducted in all selected EAs/segments. At the third stage of sampling, households will be selected in each EA/segment using fractional interval systematic sampling from, a listing of all households in the EA/segment. At the fourth stage, eligible individuals are selected within the households using a “take all” approach (i.e., all eligible individuals are selected into the sample) (Table 2).

Table 2: Summary of Methods for Each Stage of Sampling

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Stage 1: Selection of EAs** | **Stage 2: Selection of segments (if required)** | **Stage 3: Selection of households** | **Stage 4: Selection of individuals** |
| Method of Sampling | Systematic PPS | PPS | Fractional interval systematic | Take all |

The ZOI Midline Survey sample frame will be stratified by [COUNTRY-SPECIFIC STRATA DEFINITION] to create a total of [XX] strata. The number of clusters in each stratum will be proportional to the population in the strata, with a minimum of at least one cluster in a stratum; a total of [XX] clusters will be selected based on a total overall sample size of [XX] (see Section 3.7 for sample size determination) and [XX] households to be interviewed per cluster. Before fieldwork begins, a complete household listing will be conducted in each cluster, from which [XX] households will be selected randomly for interview in each cluster. During fieldwork, if more than one household is discovered in a single dwelling unit, all resident households will be interviewed for the survey.

## 3.7 Sample size determination

The main aim of the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] is to provide sample-weighted estimates of indicators (including their standard errors and confidence intervals) to enable the monitoring of the project between the baseline and endline ZOI Surveys. This requires a descriptive PBS with a sample size that is adequate to enable calculation of reliable indicator estimates at this single point-in-time (i.e., midline) for the P2-ZOI. This protocol describes the process of sample size determination for this ZOI Midline Survey.

### Method for calculating sample size

The Feed the Future PBS Sampling Guide lists the three goal-level indicators relating to poverty, food security, and stunting for the P2-ZOI to be used for sample size determination. Of these three high-level indicators, only the indicator relating to food security (i.e., Prevalence of Moderate and Severe Food Insecurity [based on FIES]) is an indicator that will be reported for the ZOI Midline Surveys. Therefore, the food security indicator will be used as the key indicator for sample size determination for the ZOI Midline Survey.

### Computing the initial sample size of the survey

The initial sample size required for the ZOI Midline Survey will be determined based on an acceptable margin of error for the estimated level and precision of the food security indicator at the midline.

Table 3 presents the calculation of the initial sample size for the ZOI Midline Survey based on the input parameters for the food security indicator as given in the table and the formula below.

Table 3: Calculation of Initial Sample Size for the Key Feed the Future ZOI Midline Survey Indicator

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Indicator** | **Pest** | **1-Pest** | **z1-α/2** | **M** | **D** | **ninitial** |
| Prevalence of food insecurity |  |  |  |  |  |  |

(1)

Where,

= estimated initial sample size required for the survey based on the indicator, Prevalence of food insecurity.

= the estimated design effect of the survey. This estimate will be computed using the baseline data because the sample design for the midline is similar to the baseline.

= the estimated prevalence of food insecurity at the midline. This value can be derived from the baseline estimate after adjusting for the expected target decrease to be achieved between the baseline and midline surveys.

= the critical value for the Normal Probability Distribution. The significance level is set at = 0.05, giving a value of = 1.96.

= is the margin of error. The margin of error to be used for the ZOI Midline Survey is 5 percent (i.e., M = 0.05).

Based on the formula and assumptions, the computation produced an initial sample size of for “prevalence of moderate and severe food insecurity (based on FIES).” Further information on sample size calculations is available in the Sampling Guide.[[2]](#footnote-3)

### Computing the final ZOI Midline Survey sample size

Before the survey sample size can be finalized, an adjustment to the initial sample size should be made to account for anticipated household non-response during the ZOI Midline Survey. The final sample size, denoted by , which is a product of the initial sample size and the anticipated non-response adjustment, then becomes:

Table 4 illustrates the computation of the final sample size for three key Feed the Future ZOI PBS indicators.

Table 4: Calculation of Final Sample Size for the Key Feed the Future ZOI Survey Indicator

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator** | **ninitial** | **adj1** | **nfinal** |
| Prevalence of food insecurity |  |  |  |

The final sample size for the [COUNTRY] ZOI Midline Survey is [XX].

## 3.9 Consent process

[CONTRACTOR] follows a number of procedures to ensure that survey work undertaken on the contract, including the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)], adheres to ethical research standards, which will include the following provisions.

**Institutional Review Board (IRB) approval**. A generic protocol and survey instrument for the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] has been submitted to the [CONTRACTOR] IRB and provisionally approved by that board. Final approval by the [CONTRACTOR] IRB for the survey will be contingent on receiving documentation signifying approval by an ethics committee in [COUNTRY].

Any deviations from the protocol as approved by the [CONTRACTOR] IRB must be reported to the [CONTRACTOR] Project Director and the [CONTRACTOR] IRB.

**Staff training in protection of human subjects.** As described in Section 3.15, all Field Supervisors and Interviewers will receive training in protection of human subjects.

**Informed consent and vulnerable populations (children).** Appendix A contains the *Feed the Future [COUNTRY] Zone of Influence Midline Survey Instrument [YEAR(S)]* with an informed consent statement. The statement addresses all of the major elements of informed consent. Interviewers will be trained to understand the purpose and content of informed consent, to read the informed consent statement to respondents, and to answer respondents’ questions about the survey or informed consent. Only household members who have provided informed consent will be asked questions. These household members will indicate consent orally, which will be documented by the Interviewer. A copy of the informed consent statement, translated as appropriate, will be left with the household.

Children are considered a vulnerable population, requiring special consideration in any study protocol. By regulatory definition, children are persons who have not attained the legal age for consent to treatments or procedures involved in the research, under applicable law of the jurisdiction in which the research will be conducted. International law considers any person under 18 years of age to be a child. For this study, children 15-17 years of age may be eligible for interview. Any household members 15-17 years of age who are eligible for interview (either as a respondent to the women’s nutrition module or as a respondent to the agriculture technologies module) will have the opportunity to provide informed assent; a parent will also be asked to provide informed consent for these household members. Any household members 15-17 years of age who are eligible for interview and are married (or formerly married) or live alone are considered emancipated minors and treated like adults and their consent is sufficient.

**Confidentiality protections.** Respect for the confidentiality of respondent information will be maintained throughout the survey process. Interviewers will not be allowed to interview anyone they know or to discuss any identified respondent’s information with anyone other than the field team members or Field Supervisor. All data transmitted to the [CONTRACTOR] secure FTP server will be encrypted. Datasets for internal USAID use will retain only personally identifiable information that is essential to analysis (e.g., household Global Positioning System coordinates and plot perimeter polygons); these data will not be shared publicly. All personally identifiable information and other information that would allow deduction of respondent identities will be stripped from datasets before they are made public, according to *Feed the Future Protocol for Preparing Non-Public, Restricted, and Public Access Datasets*. All staff working with survey data both in-country and at [CONTRACTOR] offices will sign confidentiality statements before working with the survey.

## 3.10 Other ethical concerns or issues

[xx]

## 3.11 Logistics and supplies

The [SURVEY SUBCONTRACTOR] Field Manager, assisted by the Quality Control and Support (QCS) teams, will be responsible for making logistical arrangements for the field teams, including ensuring the availability of working vehicles to transport the field teams within and between clusters, arranging for food and lodging for field teams, providing advances to Field Supervisors to cover cash outlays, providing alternative sources of electrical supply to charge tablet computers, addressing any medical or emergency needs that arise during fieldwork, and ensuring the security of field teams. [SURVEY SUBCONTRACTOR] will follow its standard procedures for providing this logistical support. All field teams will be supplied with the following materials:

**Fieldwork documents**

* Supervisor’s Manual
* Interviewer’s Manual
* Maps and lists of selected households for all clusters in the assigned area
* Letters of introduction
* Supply of paper questionnaires (all translations) for use in emergency
* Supervisor’s Control Sheets
* Interviewer’s Assignment Sheets
* Informed consent forms
* Household roster forms
* Vehicle mileage and expenditure log forms

**Supplies**

* Clipboards, briefcases, backpacks
* Identification for the Interviewers
* Paperclips, scissors, string, staplers and staples, tape, pens, and pencils
* Tablet computers configured with Interviewers’ assignments
* Equipment for simultaneously charging multiple tablet computers, including adapters, if needed
* Additional batteries for tablet computers
* Waterproof containers and envelopes to store paperwork and, if appropriate, completed paper questionnaires
* First aid kit
* Cell phones with SIM cards and chargers
* Internet transmission devices, such as hot spots

The field teams will be provided with ample supplies of these materials when they deploy to the field. The QCS teams will deliver additional supplies and replacements during travel between field teams.

## 3.12 Survey documentation

[CONTRACTOR] will develop three major documents associated with the survey: (1) the survey instrument, (2) the Interviewer’s Manual, and (3) the Supervisor’s Manual. Each of these will be adapted from guidance template documents developed by Feed the Future.

The *Feed the Future [COUNTRY] Zone of Influence Midline Survey Instrument [YEAR(S)],* includes the following survey modules:

* Module 1: *Household roster and demographics*
* Module 2: *Dwelling characteristics*
* Module 3: *Food security and resilience*
* Module 4: *Women’s nutrition*
* Module 5: *Children’s nutrition*
* Module 6W: *A-WEAI for primary adult female decision-makers*
* Module 7: *Agricultural technologies*
* Module [X] to collect data required by the USAID Mission

In addition, USAID/[COUNTRY] will work with RFS and [CONTRACTOR] to define system services and interventions that their Feed the Future portfolio is designed to deliver to households within the P2-ZOI and develop a set of questions to incorporate into the survey instrument to capture this information.

The draft survey instrument is provided in Appendix A.

An Interviewer’s Manual and a Supervisor’s Manual will be developed, based on the Feed the Future survey guidance manuals. Contents of these manuals are described in Section 3.15. Customization of the Interviewer’s Manual will entail providing detailed instructions on how to administer each module of the country-specific survey instrument. Customization of the Supervisor’s Manual will address any country-specific procedures to be followed by the supervisors, including guidance on the following topics:

* Deployment of field teams to clusters
* Logistical support to field teams, such as transportation, accommodations, electricity supply, and Internet access
* Communications and reporting
* Oversight of field teams and survey monitoring
* Community sensitization
* Household assignment
* Quality assurance of Interviews
* Quality review of household data in the cluster
* Data backup
* Data transmission
* Responding to queries from the Central Office

The Interviewer’s Manual and Supervisor’s Manual will be customized by [CONTRACTOR] in close collaboration with [SURVEY SUBCONTRACTOR] to ensure that the survey subcontractor’s procedures are fully aligned with procedural requirements for the survey.

**Translation.** All survey documentation, including the questionnaire, informed consent form, manuals, and training materials, will be translated into [NATIONAL LANGUAGE] by professional translators on the [SURVEY SUBCONTRACTOR] team or by professional translators in-country. The documents will be translated and back-translated, in accordance with Feed the Future’s standard translation protocol.

The questionnaire will also be translated into any local language that is the native language of 10 percent or more of the population in the P2-ZOI, using translation and back-translation. In [COUNTRY], translation into [LOCAL LANGUAGE(S)] will be required. All translated versions of the questionnaire will be provided to the field teams in hardcopy and loaded on the tablet computers.

**Paper questionnaire pretest.** A questionnaire pretest using the paper versions of the questionnaire will be implemented in-country to ensure that the questionnaire and each translation can be clearly understood. This pretest will include some cognitive assessment-type questions about selected questionnaire items; the selected items will be identified through discussions between RFS, [CONTRACTOR], and [SURVEY SUBCONTRACTOR]. The questionnaire pretest will identify questions that may need to be reworded to improve understanding, changed for different response options, altered to fix problems with question flow and skip patterns, and corrected for issues with translations. This will help ensure optimal data quality for the survey being implemented. In addition, the questionnaire pretest will flag any questions in the core questionnaire that demonstrate an inability to elicit from respondents the information the questions were intended to capture. This will contribute to future improvements in the core ZOI Midline Survey questionnaire design and its administration.

**Computer-assisted personal interviewing (CAPI) pretest and pilot test.** The questionnaire and CAPI data collection program will be tested at [CONTRACTOR]’s office to ensure that the data collection program is error-free and fully functional. Subsequently, during the training of trainers, the questionnaire, the data collection program, and the transmission procedures will all be tested. At the end of the Interviewer’s training, a pilot test will serve as an end-to-end rehearsal of all content and survey procedures.

## 3.13 Survey staffing

The staff roles and responsibilities listed in Tables 5a and 5b will be followed to ensure a standardized, quality-focused approach to the survey implementation. Any deviation from the survey staffing plan outlined in Tables 5a (contractor) and 5b (subcontractor) will require review and approval by the USAID/RFS Monitoring and Evaluation Advisor and a formal modification to the study protocol.

Table 5a: The Feed the Future [COUNTRY] ZOI Survey [YEAR(S)] Staffing Plan: [CONTRACTOR] Staff and Responsibilities

| **Staff position** | **Staff responsibilities** |
| --- | --- |
| Project Director | The Project Director will serve as chief of party and will have overall responsibility for the survey quality and timeliness, including design, such as the protocol and questionnaire finalization; preparation, including various procedural, managerial, and training elements; direction; and oversight of the survey implementation, analysis, and report writing. The Project Director will serve as the primary point of contact with the USAID Mission, host country government, and the subcontractor, as applicable. The Project Director also will be the main point of contact on survey progress, quality, and adherence to budget, and will be the point of contact for the Field Manager on case completion issues. The Project Director will provide training to the survey subcontractor, if applicable, on translation, questionnaire pretesting, and listing procedures. The Project Director also will be responsible for the Country Report, including writing many sections of the report. The Project Director will work with the Survey Director to track survey progress and resource requirements. The Project Director will communicate needs for information technology, programming, and data management to the Data Processing Manager. The Project Director will communicate directly with the Survey Director, Sampling Statistician, and Data Analysts for support in their functional areas. |
| Senior Researcher | The Senior Researcher will provide high-level technical support for a broad range of survey activities, including supporting the development and customization of survey documentation that includes the questionnaire and technical manuals; managing version control of the survey documentation; managing translation activities; and coordinating logistical support. The Senior Researcher will provide quality control for all survey deliverables, oversee the work of the Data Analysts, and help coordinate the development of the Country Report, including maintaining the outline and schedule. The Senior Researcher will report to the Project Director. |
| Data Processing Manager | The Data Processing Manager will develop and manage the customization of data processing documentation and systems for the survey and oversee the programmers. The Data Processing Manager will determine the requirements for the data entry programs, field check tables, and data quality reports, and will be responsible for the creation of public use datasets that protect respondent confidentiality. The Data Processing Manager will train the In-Country Data Managers and serve as a resource for them and the Data Analysts who monitor data quality. The Data Processing Manager will report to the Project Director. |
| Research Assistant | The Research Assistant will support the Project Director, Senior Researcher, and Data Processing Manager with their respective tasks, potentially including conducting some in‑country tablet computer trainings, coordinating equipment procurement, monitoring survey progress on a day-to-day basis, and ensuring version control of survey documents. The Research Assistant will report to the Senior Researcher. |
| Sampling Statistician | The Sampling Statistician will calculate the survey sample size, design the sample, select the first stage of the sample, compute design weights, oversee application of the household selection process to select the second stage, calculate response rates, and compute the final adjusted weights. The Sampling Statistician will report to the Senior Researcher. |
| CSPro Programmer | The CSPro Programmer will program the data entry screens and the field check tables, train the data entry staff, and assist in training Interviewers and Supervisors. The CSPro Programmer will report to the Data Processing Manager. |
| Data Analyst | The Data Analyst will conduct analysis of survey data, including development of the analysis plan, calculation of indicator values from primary and secondary data, calculation of population estimates, development and quality control of tables in the country report, and quality control of all analysis. The Data Analyst will conduct other analyses requested by the USAID Mission. The Data Analyst will provide text for indicator analyses for the Country Report. The Data Analyst will report to the Senior Researcher. |

Table 5b: Feed the Future [COUNTRY] ZOI Survey [YEAR(S)] [SURVEY SUBCONTRACTOR] Staffing Plan: Field-based Staff and Responsibilities

| **Field-based**  **staff position** | **Field-based staff responsibilities** |
| --- | --- |
| Survey Director | The Survey Director will be responsible for ensuring that all aspects of survey operations are implemented according to protocol. |
| In-Country Data Manager | The In-Country Data Manager will respond to data quality reports generated in the field and communicate any problems that are discovered to Field Supervisors and survey management. The In-Country Data Manager will report the nature and scope of these problems and suggest solutions. |
| Information Technology Specialist | The Information Technology Specialist will liaise with the technical teams and local non‑technical staff to ensure that the technology being used to implement the survey is available, functional, and well-understood. Duties will include survey hardware oversight (customs procedures as appropriate, maintenance, tracking); management of questionnaire updates; leveraging local networks for optimal data delivery; technical re-training for field staff as needed; and task-appropriate configuration, security, and training for non-survey hardware. |
| Field Manager | The Field Manager will be responsible for leading the coordination and management of field operations, including the hardcopy questionnaire pretest, listing, pilot, and main fieldwork. |
| QCS Teams | Rotating regional QCS teams will visit the field teams once each week. The objective of the QCS teams will be to provide quality assurance and also to provide any material or moral support that the field teams need. The number of QCS teams required to provide appropriate coverage will be determined by the size and geographical distribution of the fieldwork. |
| Field Supervisors | Each field team will have one Field Supervisor. The Field Supervisor will be responsible for the team and the day-to-day organization and supervision of the team’s work. The Field Supervisor will also meet with community leaders, manage the vehicle and Driver, and coordinate room and board for the field team. |
| Interviewers | Each field team will comprise four Interviewers: two teams of two Interviewers each. Each team of Interviewers will comprise one female and one male Interviewer. Interviewers will be responsible for successful and accurate completion of all assigned interviews. |
| Drivers | Each field team will be accompanied by one Driver who will ensure that the field teams safely arrive at and return from the selected survey clusters. |

## 3.14 Pre-fieldwork activities

The listing teams will complete three major activities in each cluster before fieldwork: (1) community sensitization, (2) household listing, and (3) household selection. [SURVEY SUBCONTRACTOR] will send a listing team to each selected enumeration area (EA) to complete the community sensitization and household listing. Each listing team will comprise an experienced Field Supervisor, a Lister, and a Cartographer.

**Community sensitization.** The listing team will meet with a community leader in each selected EA to explain the purpose of the survey and to request community cooperation. The listing team will provide the community leader with a letter from [XXX] describing the survey and the benefits that will accrue to the country and community from survey findings. They will also share promotional materials like posters or brochures with community leaders and in central gathering places in the community.

While in the community and surrounding area, the listing team will identify options for food and lodging, ascertain availability of electricity and Internet access, and identify the languages or dialects spoken in the community.

**Household listing.** The household listing exercise will be completed approximately 6 weeks before the start of the pilot. The listing teams will visit each selected EA to map, number, and list all structures, dwelling units, and households within the designated boundaries of the EA. The name of a responsible adult household member for each household will also be recorded. After the complete listing information for a selected EA is received in the [SURVEY SUBCONTRACTOR] Central Office, the staff will enter the information into an Excel spreadsheet and clean the listing data. The spreadsheet will then be encrypted and sent through a secure file transport protocol to a dedicated [CONTRACTOR] staff member.

**Household selection.** After all EA listing information has been received by [CONTRACTOR], the [CONTRACTOR] Sampling Statistician will implement the household selection procedure. The final lists of randomly selected households, along with EA and household identification numbers, will be sent to the Field Manager, who will assign EAs and provide the lists of selected households in those EAs to the Field Supervisors. The lists of selected households will be used in field management tasks and will be programmed into the Census and Survey Processing System (CSPro) data entry system and loaded onto each tablet computer.

Community sensitization and listing procedures are described in detail in the Feed the Future Zone of Influence Midline Survey Listing Manual. Household selection procedures are described in detail in the Sampling Manual. These materials are available on Agrilinks at the following URL: <https://agrilinks.org/post/feed-future-zoi-survey-methods>.

## 3.15 Training, tablet pretest, and pilot test

Training, CAPI pretest, and pilot test activities will occur over a 6-week period before fieldwork starts, according to the following schedule:

* Weeks 1–2: Training of trainers, including pretesting the tablet computer data entry program, data transmission and receipt, and quality control procedures
* Weeks 3–4: Training of Interviewers
* Week 5: Pilot test

**Training of trainers.** In weeks 1 and 2, the [CONTRACTOR] Senior Researcher will work with the Survey Director and Field Manager from [SURVEY SUBCONTRACTOR] to train the staff selected as trainers for the main field staff training; these staff will also serve as rotating QCS team members. Field Supervisors will also be trained with the trainers, where feasible.[[3]](#footnote-4) Training will be based on the following topics drawn primarily from the Interviewer’s Manual and Supervisor’s Manual:

* **Introduction to the survey:** survey objectives, sample, survey modules, survey implementation, confidentiality, and Field Supervisor role
* **Preparing for fieldwork:** collecting materials, obtaining monetary advances for field expenses, arranging transportation and accommodations, and contacting local authorities
* **Questionnaire content:** household roster; informed consent; dwelling characteristics and household assets; food security and resilience; A-WEAI; women’s dietary diversity, and infant and young child feeding; and improved agriculture technologies
* **Organizing and supervising fieldwork:** assigning households to field teams and tracking completion, handling pending interviews, observing interviews, monitoring and evaluating Interviewer performance, conducting systematic spot checks of household composition, reducing non-response, maintaining motivation and morale, and completing work in a cluster
* **Data management:** distributing work, checking questionnaires for completeness, archiving data, backing up files, including shape files, and transmitting data
* **Reporting and communications:** maintaining schedule and procedures for reporting to the Field Manager, and handling issues that require immediate communication

Hands-on training and practice sessions will cover the use of tablet computers for data collection.

**CAPI pretest.** Near the end of the first week of training of trainers, the programmed survey instrument will be pretested. The CAPI pretest, to be conducted in rural areas near the training site, will to the extent possible include individuals who are similar to the planned survey respondents, including those who speak each of the local languages to which the questionnaire has been translated. The CAPI pretest will focus on the survey instrument—whether the flow between survey modules works well, whether all questions are comprehended, and whether the full range of appropriate responses is available. Simultaneously, the CAPI pretest will identify any problems with using the tablet computer, such as skip patterns, and navigation between survey modules.

Any issues with the survey instrument and CAPI program will be communicated to the [CONTRACTOR] Data Processing Manager, who will see that corrections are made, documented, and tested during the second half of the training of trainers.

As soon as the survey instrument has been corrected, the revised version will be translated. When the program revisions have passed testing, the revised program will be downloaded from a secure server managed by [CONTRACTOR] and loaded on all tablet computers by the [SURVEY SUBCONTRACTOR] supervisory staff, at the express instruction of the Survey Director.

The CAPI pretest also will entail testing data transmission, extraction, and generation of field check table reports at the [SURVEY SUBCONTRACTOR] office. The [CONTRACTOR] Data Processing Manager will closely monitor the effectiveness of these systems, procedures, and activities and have any issues resolved.

The Senior Researcher will review procedures for addressing issues identified in the field check table reports with the [SURVEY SUBCONTRACTOR] In-Country Data Manager.

**Training of Interviewers**.**[[4]](#footnote-5)** In weeks 3 and 4, the [CONTRACTOR] Senior Researcher will work with the [SURVEY SUBCONTRACTOR] training team to train the Interviewers. The training, based on the Interviewer’s Manual, will cover the following material:

* **Introduction to the survey:** survey objectives, sample, survey modules, survey implementation, confidentiality, Interviewer’s role, assignment to supervisors, payment for services
* **Conducting the interview:** giving general guidance, approaching the household, building rapport, converting refusals, obtaining informed consent, ensuring privacy, using translations, asking questions, probing, following interview instructions on the questionnaire and tablet computer, noting differences between the printed questionnaire and tablet computer screens, and flagging issues to be discussed with the Field Supervisor
* **Questionnaire content:** informed consent, household roster, dwelling characteristics and household assets, food security and resilience, A-WEAI, women’s dietary diversity and infant and young child feeding, and improved agriculture technologies
* **Fieldwork procedures:** following field team members’ roles and responsibilities, using the control sheet, managing the household interview, reporting to the Field Supervisor, following up missed interviews, ensuring high-quality data, and monitoring and review of Interviewers’ performance
* **Entering and managing data on the tablet computer:** understanding the tablet computer and screen components, starting a questionnaire on the tablet computer, navigating the questionnaire, advancing through survey modules, entering responses, dealing with refusals, troubleshooting, and transmitting data
* **Completing survey modules:** knowledge of general instructions, administering each survey module, asking questions, and entering responses question by question

Hands-on training and practice sessions will cover the use of tablet computers for data collection.

**Training in human subjects protections**. All trainees—QCS team members, Field Supervisors, Interviewers, the Field Manager, the In-Country Data Manager, and anyone who might see the survey data—will be trained in human subjects protections, including a brief history of human subjects protections, the elements of informed consent, and confidentiality. Significant attention will be dedicated to the elements of informed consent, particularly the need to explain the following information:

* Purpose of the research
* Duration of the respondent’s participation
* General content of questions to be asked
* Any foreseeable risks to the respondent
* Any benefits to the respondent or others from the research
* Maintenance of confidentiality in records that identify participants
* Points of contact for questions about the survey or about respondent rights
* Statement that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the respondent is otherwise entitled, and the respondent may discontinue participation at any time without penalty or loss of benefits.

At the conclusion of the human subjects protection training, each trainee will sign a statement of confidentiality. Signed statements of confidentiality will be retained in the [SURVEY SUBCONTRACTOR] office in [CITY, COUNTRY] for 3 years.

**Pilot test.** At the conclusion of the Interviewers’ training, the entire survey team will conduct a pilot test of all survey procedures, logistics, systems, the revised instrument, and the translations. The pilot test will be conducted in rural communities that are in the P2-ZOI but are not part of the sample. The pilot test will last 1 week. At the end of each day, everyone participating in the pilot will meet to discuss issues and challenges and to identify solutions. Proposed solutions will be tested on subsequent days.

At the conclusion of the pilot, all proposed changes to the survey instrument, translations, procedures, logistics, and systems will be documented and prioritized. The Senior Researcher and the Research Assistant will work with the [SURVEY SUBCONTRACTOR] Survey Director, In-Country Data Manager, and Field Manager to revise the Supervisor’s Manual and Interviewer’s Manual and plan any needed retraining.

Proposed revisions to the survey instrument and data entry program will be communicated to the [CONTRACTOR] Data Processing Manager, who will coordinate implementation, documentation, and testing of the final changes. The Senior Researcher will ensure the alignment of the survey instrument, translations, and translated data entry program. Revisions to the instrument and data entry program and other preparations for fieldwork may take several days, so there will be a brief hiatus between the pilot and the initiation of fieldwork. After the program has passed testing, the revised program will be downloaded from [CONTRACTOR]’s secure server and loaded onto all of the tablet computers by [SUBCONTRACTOR]’s supervisory staff, at the instruction of the Survey Director.

## 3.16 Fieldwork

This section describes how the team structure and field support will be implemented for fieldwork.

**Team structure:** Each field team deployed will comprise one Field Supervisor, two teams of two Interviewers, and a Driver. Because of the gender-sensitive nature of some aspects of the questionnaire, female Interviewers will be needed to interview female respondents, which means that each Interviewer team will have at least one female Interviewer. Each field team will have its own vehicle.

**Field support:** Each field team will be visited regularly by a QCS team to ensure that field teams have the supplies needed and that any problems that require central administration support receive prompt attention. The QCS teams also will provide moral support for the Interviewer teams and provide an additional layer of field supervision and quality assurance.

# 4. Data handling and analysis

## 4.1 Data entry programming and testing

[CONTRACTOR] will capture data on Android tablet computers and use CSPro software for data entry.

Data entry programming and testing is a multistage process that starts approximately 5 months before fieldwork. Programming will start when the basic survey instrument is frozen, meaning that all survey modules and questions have been identified and the flow of the questions, including skip patterns, have been determined. At this point, the data management team will identify the programming specifications and testing scenarios that differ from the standard data entry system. Because Feed the Future has developed a standard set of CSPro programs, programmers then will adjust the instrument and develop the variable dictionaries. Note that the specifications, program, and dictionary may be modified to address problems identified during the questionnaire pretest. The programmed instrument will be tested, and, if changes are required, the specifications, program, and dictionary will be modified until the programmed instrument passes testing. The programmed source-language instrument will be frozen at this point for the training of trainers.

Before the training of trainers and the CAPI pretest, the tablet computers will be configured and the data entry program in all translated languages will be loaded onto the tablet computers in [COUNTRY]. To accommodate this prior to the training of trainers, the [CONTRACTOR] should allow at least 5 weeks for shipping and customs clearance; tablet computers should arrive at least 2 weeks before the CAPI pretest to allow time for configuration. Tablet computers will be consigned to the USAID Mission, a Feed the Future implementing party with duty free status, or the in-country [SURVEY SUBCONTRACTOR] for customs clearance.

The tablet computers will be used during the training of trainers. During the training of trainers, the survey instrument and data entry program will be pretested. Also during the CAPI pretest, data transmission to [CONTRACTOR] servers and generation of the data quality reports will be tested. Although it should not be necessary to modify the instrument substantially at this point because the logic in the data entry program will have been rigorously tested and finalized, provisions have been made for possible minor issues identified during training and CAPI pretest that might require modification. These might include incorrect translations, missing response options, or issues with skip patterns or navigation through the data entry program. To address any errors found during the CAPI pretest, the programming, translations, and dictionary will be revised and retested until the program passes the testing procedures. In preparation for the Interviewer training and pilot, the revised program will be shared with the In-Country Data Manager over a secure server and loaded onto all tablet computers by [SURVEY SUBCONTRACTOR] supervisory staff, at the instruction of the Survey Director.

The tablet computers also will be used for data entry during the Interviewer training and pilot. If any issues are identified during the Interviewer training and pilot, the data entry program will be revised and retested, as described earlier. No further additions or revisions will be made to the questionnaire or data entry program after these final modifications are made.

## 4.2 Field quality assurance systems

[CONTRACTOR] will use two quality assurance systems to ensure documentation of sample completion and the quality of data entry. These systems are a CAPI data management system for monitoring progress and field check table reports.

**Monitoring of progress and closing clusters.** Field Supervisors will use a CAPI data management system to assign and track completion of selected households or “cases” in each cluster. The Field Supervisors will connect to a secure FTP server to receive cluster assignments and lists of selected households—the households in the cluster selected for interviewing. The Field Supervisors will assign households to interviewing teams from among these selected households. At the end of each workday, Interviewers will send their data over an encrypted Bluetooth connection to the Field Supervisors, who will review the status of each Interviewer’s work in the tablet computer’s data management system.

The CAPI data management system also will be used to verify that the data are complete—that all households and module interviews have been carried out for each cluster. The Field Supervisors will run a program in the CAPI data management system that reviews household records to verify that all appropriate survey modules in all households in the cluster have been completed and that eligibility for survey modules is correct. The Field Supervisors will send Interviewer teams back to households to complete or correct interviews as necessary, and may personally conduct some of these follow-up interviews.

When questionnaires have passed quality review, the Field Supervisors will transmit the records to [CONTRACTOR]’s server, using a secure connection.

**Field check tables** will be generated by the [SURVEY SUBCONTRACTOR] In-Country Data Manager, using aggregated data and programs provided by the [CONTRACTOR]. Field check tables provide a wider view of the data than the CAPI data management system and will be used to identify data collection problems at the field team and Interviewer levels. The field check table reports will allow [CONTRACTOR] and [SURVEY SUBCONTRACTOR] to provide feedback to Field Supervisors, evaluating their team’s performance for response rates, age displacement, and value heaping.

[CONTRACTOR] will track performance, implementation, data uploading, and data quality. The [SURVEY SUBCONTRACTOR] In-Country Data Manager will send reports weekly to the [CONTRACTOR] Senior Researcher and Data Processing Manager throughout fieldwork. The [SURVEY SUBCONTRACTOR] In-Country Data Manager will work with the Field Manager to ensure that any observed problems are addressed promptly through retraining, as necessary, and to provide positive feedback for teams that are performing well.

**Field supervision.** Rigorous field supervision will be provided throughout the course of fieldwork by several layers of supervisory staff to ensure the quality of the data. Front-line data quality assurance in the field will be provided by the Field Supervisors. Field Supervisors will review each questionnaire summary closely before data are transmitted. The Field Supervisors will also observe all Interviewers as they conduct some interviews, spot-check a random sample of interviewed households, and provide additional instruction to Interviewers as needed. QCS teams will visit the field teams during fieldwork to provide supervision and additional quality assurance.

## 4.3 Data transmission

After a final review of questionnaires, Field Supervisors will send data from their tablet computer to the [CONTRACTOR] server, where all survey data will be stored. Data files will be encrypted for transmission over secure channels to a secure server.

Before the initial transmission of the data from the field, the data transmission system will be prepared and tested for receipt of data from the field. This system will undergo testing during the CAPI pretest and again during the pilot test. Field Supervisors will gain experience in transmitting data from their tablet computers to the server during training.

The data will be transmitted to the [CONTRACTOR] server at least daily, depending on Internet availability. Field teams will use mobile hotspots so they can transmit data from areas with no Internet service.

Problems can occur during the process of transmitting data from the field that can prevent successful transmission, such as low Internet bandwidth or problems with the tablet computers, including damaged hard drives and screens. Procedures will be in place to address these problems. [CONTRACTOR] will work closely with [SURVEY SUBCONTRACTOR] to identify the most reliable approaches to access the Internet, plus several back-up methods to ensure frequent, regular data transmissions from the field. Damaged tablet computers will be returned to [CONTRACTOR]’s office for data extraction.

## 4.4 Data management

**Structure checking.** Data will be sent daily from the field to [CONTRACTOR]’s secure server. Using a central data processing system, the In-Country Data Processing Manager (ICDM) generates a report on the data received to check the completion and structure of the data sent from the field. Data can only be checked from an entire cluster, after the cluster has been closed for data collection in the field. The ICDM or a designee will review the report for data received from the field on the [CONTRACTOR] server daily. Discrepancies in the completion of data collection will be noted, and the ICDM will contact the Field Supervisor immediately to resolve the outstanding issues and retransmit the data to the server. The Data Processing Manager will work with the [SURVEY SUBCONTRACTOR] ICDM to review and address the discrepancies in household records received. All data received from the field must be complete, and no interviews can remain outstanding in order for the data to pass structure checking.

**Quality control and data cleaning.** Computerized quality control reports will be generated on data received by [CONTRACTOR]. These reports include both field check tables of larger trends and secondary editing reports on internal consistencies in each questionnaire. Field check tables will monitor age heaping and displacement and calculate response rates. Secondary editing reports will check value ranges, skip patterns, and consistency across variables; and identify missing data, outliers, and other consistency issues. The [SURVEY SUBCONTRACTOR] ICDM will review quality control reports generated on data received, after the structure of the data has been checked at the receipt of data. The [CONTRACTOR] Data Processing Manager will review quality control reports at least weekly. Key issues will be identified and noted on the reports, which will be sent to the Senior Researcher and other survey staff.

The [SURVEY SUBCONTRACTOR] will address the following issues:

**If an error is caught and the team has not left the cluster,** the interviewing team can return to the household and correct the observed error. The error discovered will be a topic for discussion during the team’s evening debrief, during which the error will be brought to the attention of the field team and some retraining will be implemented to ensure that the error does not recur.

**If an error is caught after the team has left the cluster, but the implications of the error are limited,** for example, to a single household or a single respondent in a household, the response to the discovery of the error will be to bring the error to the attention of the field team and engage in some retraining to ensure that the error does not recur. However, the team will not return to the cluster in which the error was identified.

**If an error is caught after the team has left the cluster, and the implications of the error are significant** (for example, interviewing teams do not interview selected households, or they record invalid household results such as “other” and then specify an invalid reason for not interviewing a household), the teams involved will be required to return to the clusters to rectify the problem.

The Senior Researcher will work with the Survey Director, Field Manager, and Field Supervisors to ensure that Interviewers receive retraining, when necessary, and to address any other issues.

## 4.5 Calculation of response rates and weights

Design weights will be calculated based on the separate sampling probabilities for each sampling stage and for each cluster, using the following factors and calculations:

1 first-stage sampling probability of the i-th cluster in stratum h.png first-stage sampling probability of the *i*-th cluster in stratum *h*

2 second-stage sampling probability within the i-th cluster - hh selection.pngsecond-stage sampling probability within the *i*-th cluster (household selection)

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

3 The first-stage probability of selecting cluster i in the sample is.png

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

4 The second-stage probability of selecting household in cluster i is.png

Where:

5 number of sample clusters selected in stratum h.png number of sample clusters selected in stratum *h*

6 total population in the frame for the i-th sample cluster in stratum h.png = total population in the frame for the *i*-th sample cluster in stratum *h*

7 total population in the frame in stratum h.png total population in the frame in stratum *h*

8 number of sample households selected for the i-th sample cluster in stratum h.png number of sample households selected for the *i*-th sample cluster in stratum *h*

9 number of households listed in the household listing for the i-th sample cluster in stratum h.png number of households listed in the household listing for the *i*-th sample cluster in stratum *h*

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

The sampling weight will be calculated with the design weight corrected for non-response for each of the selected clusters. Response rates will be calculated at the cluster level as ratios of the number of interviewed units over the number of eligible units, where units could be household or individual, such as woman or child. The household sampling weight will be calculated by dividing the household design weight by the household response rate. The individual sampling weight will be calculated by dividing the household sampling weight by the individual response rate. Further information on the sample weights is available in the Sampling Manual.[[5]](#footnote-6)

## 4.6 Data analysis

For the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] analysis, [CONTRACTOR] will calculate indicators using Feed the Future standard guidance in the *Feed the Future Indicator Handbook*, the *Guide to Feed the Future Statistics: 2021-2023 Midline*, and the associated template analysis syntax files*.*[[6]](#footnote-7) The handbook provides a detailed description of the calculation of each of the Feed the Future indicators, and also directs analysts to additional standard guidance materials for specific indicators. The Guide to Statistics provides an overview of the indicator as well as step-by-step guidance to calculate the indicators.

[CONTRACTOR] Data Analysts will tabulate values for all indicators and disaggregates, as specified in the *Feed the Future Indicator Handbook* and *Guide to Feed the Future Statistics: 2021-2023 Midline*. For example, FIES will be shown for all households and will also be disaggregated by gendered household type—male and female adult, female adult-only, male adult-only, and child-only households. Each sample-weighted point estimate will include the unweighted *N*, the sample-weighted standard deviation and confidence intervals, and the design effect. Statistical tests of differences for change over time and differences among groups will be conducted. Indicator values will not be reported for categories with fewer than 30 cases.

The total and disaggregated indicator values will be entered in USAID’s Development Information Solution by [CONTRACTOR] staff. Indicator values will not be reported for categories with fewer than 30 cases.

The majority of the indicator analysis, with the possible exception of FIES, will be done using Stata statistical analysis software. SAS, SPSS, and R software may also be used for data cleaning and management, as well as the FIES analysis.

The ZOI Midline Survey Report analysis will follow the *Guide to Feed the Future Statistics: 2021-2023 Midline* and the Feed the Future ZOI Midline Survey Report template.

## 4.7 Preparation of datasets for public use

Under the terms of the United States President’s Executive Order, *Making Open and Machine Readable the New Default for Government Information,* and the Administration’s Open Data Policy, RFS will make data from Feed the Future ZOI Midline Surveys available as open and machine-readable public use datasets after the ZOI Midline Survey Reports are published.

An essential step in the preparation of [CONTRACTOR] datasets for public use is ensuring respondent privacy and confidentiality. Respondent privacy and confidentiality will be ensured and protected by removing identifying information from the datasets, including direct identifiers, such as names, addresses, Global Positioning System coordinates, or any other personally identifying number or characteristic, and indirect identifiers, such as data that do not specifically identify a person or location, but that can be used to do so, one variable at a time or in combination, because they uniquely describe a person or household.

The Data Processing Manager or designee is responsible for developing and implementing a Disclosure Analysis Plan and Record of Implementation for the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] dataset intended for public use, according to the following steps, which are outlined in more detail in the *Feed the Future Protocol for Preparing Non-Public, Restricted, and Public Access Datasets*:

1. Collect and review USAID, IRB, and other relevant institutional review or approval documents and informed consent forms to ensure any restrictions on release of data for public use are satisfied or renegotiated, if possible.
2. Review the data file for the presence of direct identifiers, list all direct identifiers and geographic identifiers below the district level, and delete them from the file. Ensure that cluster identification numbers are unique to the survey and cannot be linked to external datasets.
3. Manage indirect identifiers as follows:

(a) Review all questionnaires for country-specific questions that could capture externally observable information about the respondent, including textual and qualitative data.

(b) Run cross tabulations of standard and country-specific indirect identifiers by district and identify data items that occur at very low frequencies in each district.

(c) Identify viable external data sources that can be used to compare outlier status of identified low-frequency variables in each district, if possible.

(d) Document the proposed approach for handling identification-risk data items.

(e) Obtain review and approval of the proposed approach from [CONTRACTOR] supervisory review staff designated by the Data Processing Manager; following internal review and approval, send the proposed approach to RFS for review and approval.

(f) Suppress or recode items that could pose an indirect risk to respondent confidentiality and anonymity.

# 5. Plan for publication of findings and posting of open dataset

## 5.1 Dissemination, notification, and reporting events

Findings from the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] will be incorporated in the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] ZOI Midline Survey Report. This report will describe the purpose of the ZOI Midline Survey indicator assessment, the sources of data for each indicator, the sample design for the ZOI Midline Survey, the procedures to collect data, limitations, and findings for all Feed the Future indicators, plus additional survey modules requested by the USAID Mission.

The ZOI Midline Survey Report will be reviewed and approved by RFS, the USAID Mission, and the host country government. The approved, 508-compliant report will be provided to RFS for posting on the Feed the Future website, Agrilinks, and the Development Experience Clearinghouse. RFS will post the open dataset on USAID.gov.

In addition to entering indicators in USAID’s Development Information Solution and including Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] findings in the ZOI Midline Survey Report, [CONTRACTOR] may also present findings in a webinar for RFS, USAID Mission, and host country government staff. Webinars will be conducted after the ZOI Midline Survey Report is approved by the client.

# 6. Handling unexpected or adverse events

This section describes responses to unexpected or adverse events that may occur during the study and ways to minimize their impact on the study outcome.

**Survey schedule:** In rare circumstances, the survey schedule may be modified; in other words, some activities listed in Table 1 may take place simultaneously or on a delayed schedule to accommodate weather, religious holidays, or any political uncertainties, such as elections.

**Inaccessible EAs:** During fieldwork, some EAs may become inaccessible to the field teams. This can happen for a number of reasons, including physical limitations, such as a rainy season that washes out the access roads to the EA, and security issues, such as political instability, that make it unsafe for Interviewers. Consequently, data may not be collected in the affected EAs. To compensate for a possible shortfall in the number of households required for data collection, [CONTRACTOR] will draw a random-generated reserve sample as part of the initial sample draw.

**Dropouts or temporary absences:** [CONTRACTOR] should plan to train extra Interviewers who will serve as back-up in case any Interviewer drops out of the survey. All Field Supervisors will be trained on all aspects of data collection and will serve as back-up for temporary absences of Interviewers due to health or family emergencies.

**Security risks:** In P2-ZOI areas that might pose security risk to Interviewers, security guards provided by [SURVEY SUBCONTRACTOR] should accompany the field teams.

# 7. Implementing organization and key staff

[CONTRACTOR] will direct the ZOI Midline Survey. Founded in [YEAR], [CONTRACTOR] is a leading survey research organization that conducts research for the U.S. Government and other federal and international clients. [ORGANIZATION] is the prime contractor on the [CONTRACTOR] project. For the Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)], [CONTRACTOR] will lead planning and design, oversee implementation, manage and analyze the data, develop the Country Report, and provide the public use datasets. [CONTRACTOR] also will interact with the host country authorities and subcontract the survey subcontractor. A survey organization based in [COUNTRY] that has extensive experience conducting large-scale household surveys will be subcontracted to conduct the fieldwork.

Following is a list of key staff positions with [CONTRACTOR] involved in the Feed the Future [COUNTRY] Midline ZOI Survey [YEAR(S)]:

* + **Project Director [NAME]**,background
  + **Senior Researcher [NAME]**, background
  + **Sampling Statistician [NAME]**, background
  + **Data Analyst [NAME]**, background

# Appendix A: Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)] instrument

# Appendix B: Feed the Future [COUNTRY] ZOI Midline Survey [YEAR(S)]—Gantt chart

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Feed the Future Zone of Influence Midline Survey Tasks and Timeline** | | **MONTH** | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 1 | Undertake planning activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Conduct inception visit |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | Develop plan for obtaining ethical review from federalwide-certified and in-country IRB |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Prepare the study protocol and accompanying implementation plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Develop and issue RFP (if required) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | Prepare the sampling design |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 | Coordinate with national statistical office to select PSUs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | Undertake country-specific customization of the core questionnaire (paper version) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Translate questionnaire (paper version) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | Submit application for review to the IRB |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | Establish range values for purposes of implementing range checks |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | Subcontract to local partner organization |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Customize core questionnaire pretest protocol (including cognitive probes) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 | Implement questionnaire pretest |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 | Procure supplies and equipment (tablets and personal protective equipment) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | Develop CSPro CAPI pretest and pilot protocols |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 | Develop and code programming specifications (tablets only) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | Program questionnaire for CSPro CAPI data collection |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19 | Prepare survey manuals: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 19a - Interviewer Manual |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 19b - Supervisor Manual |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 19c - Organization Manual |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 19d - Quality Control and Support Team Manual |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 19e - Listing Manual |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | Develop field check tables |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | Develop data monitoring plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 22 | Prepare data cleaning plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Feed the Future Zone of Influence Midline Survey Tasks and Timeline** | | **MONTH** | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 23 | Develop fieldwork management and monitoring plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 | Develop interviewer training plans and supporting materials |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24a - Training plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24b - Agenda (facilitator and trainee versions) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24c - Attendance sheets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24d - Quizzes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24e - Role play exercises |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24f - Demonstration of field check tables and interpretation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24g - Demonstration of real-time remote fieldwork monitoring (if planned) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24h - CSPro CAPI training materials |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24i - Interviewer's training materials (slides, specific forms) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24i - Supervisor training materials (incl. assignment and control sheets) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 24j - IT staff training plan and materials (if relevant) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 | Implement listing operation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | Clean listing data and select households (on a rolling basis) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 27 | Ensure that IRB approval has been received |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 | Implement training of trainers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 29 | Implement CSPro CAPI pretest (as part of training of trainers) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 | Implement interviewer training |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 31 | Implement pilot (as part of interviewer training) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32 | Implement data entry/data management pilot as part of all-systems fieldwork pilot |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 33 | Prepare data weighting protocol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | Implement fieldwork |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35 | Generate field check tables |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 36 | Prepare data structure and codebook |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 37 | Clean the data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 38 | Weight the data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 39 | Prepare data quality assessment memo |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40 | Analyze the data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 41 | Prepare final report tables |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 42 | Draft final report |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 43 | Prepare protocol for rendering data suitable for public use |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 44 | Prepare non-public access data files (maintains some PII, e.g., GPS coordinates) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | Prepare restricted access data files |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 46 | Prepare public access data files (excludes PII) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47 | Enter values in USAID'S Development Information Solution |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Notes: IRB – institutional review board; RFP – request for proposal; PSU – primary sampling unit; CAPI – computer-assisted personal interviewing; CSPro – census and survey processing system; PII – personally identifiable information  This Gantt chart is predicated on the use of existing core survey documentation (questionnaire, manuals, data entry program, etc.) that need only be customized for country-specific details. Addition of new questions, modules, or procedures will require considered revision and extension of the timeline represented here. | | | | | | | | | | | | | | | | | | | | | |

1. Stukel, DM. 2018. Feed the Future Population-Based Survey Sampling Guide. Washington, DC: Food and Nutrition Technical Assistance Project, FHI 360. Available for download from <https://agrilinks.org/post/feed-future-zoi-survey-methods>. [↑](#footnote-ref-2)
2. Stukel, DM. 2018. Feed the Future Population-Based Survey Sampling Guide. Washington, DC: Food and Nutrition Technical Assistance Project, FHI 360. Available for download from <https://agrilinks.org/post/feed-future-zoi-survey-methods>. [↑](#footnote-ref-3)
3. Some survey subcontractors may need to select and train Field Supervisors during the main training; this is an acceptable approach to implementation, and alternate planning and training procedures are available to support this approach. [↑](#footnote-ref-4)
4. If the survey subcontractor’s standard practice is to train Field Supervisors with Interviewers, the training program will be modified to accommodate this training. The Supervisor’s Manual will be used to train the Field Supervisors. [↑](#footnote-ref-5)
5. The Feed the Future Sampling Manual is available on Agrilinks: <https://agrilinks.org/post/feed-future-zoi-survey-methods> [↑](#footnote-ref-6)
6. The Feed the Future Indicator Handbook: Definition Sheets are available at: [https://feedthefuture.gov/resource/feed-future-handbook-indicator-definitions](https://www.google.com/url?q=https://feedthefuture.gov/resource/feed-future-handbook-indicator-definitions&sa=D&ust=1518750031574000&usg=AFQjCNFFRIrPyTC8n9lLe18dLIYZ_SPh_Q) [↑](#footnote-ref-7)