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SAHEL RESILIENCE LEARNING (SAREL)

RISE Baseline Survey Report

March 2016 (Revised version)

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SAHEL RESILIENCE LEARNING PROJECT (SAREL)

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LIST OF ACRONYMS

CESAO	West African Center for Social and Economic Research
CFW	Cash for Work
CP	Consumer Price Index
CRS	Catholic Relief Service
DFAP	Development Food Assistance Program
DFID	Department for International Development (UK)
FCFA	Franc de la Communauté Française d’Afrique
FFP	Food for Peace
FFW	Food for Work
FY	Fiscal Year
GAM	Global Acute Malnutrition
GPI	Gender Parity Index
Ha	Hectare
HH	Household
HHH	Household Head
HHS	Household Hunger Score
IMC	Institut de Management, Conseils et Formation
IMF	International Monetary Fund
INSD	Burkina Faso National Statistics and Demographic Institute
Km	Kilometer
LCU	Local Currency Unit
MAD	Minimum Acceptable Diet
NGO	Non-Governmental Organization
NRM	Natural Resource Management
PAAQ	Pôle Afrique Assurance Qualité Wadata
PPP	Purchasing Power Parity
PMP	Performance Monitoring Plan
PRIME	Pastoralist Areas Resilience Improvement and Market Expansion
REGIS-AG	Resilience and Economic Growth in the Sahel - Accelerated Growth
REGIS-ER	Resilience and Economic Growth in the Sahel – Enhanced Resilience
RISE	Resilience in the Sahel Enhanced
SAREL	Sahel Resilience Learning Project
TLU	Total Livestock Unit
TMG	The Mitchell Group, Inc.
USAID	United States Agency for International Development
USG	United States Government
US\$	US Dollar
WEAI	Women’s Empowerment in Agriculture Index
WHO	World Health Organization

EXECUTIVE SUMMARY

The *Resilience in the Sahel Enhanced* (RISE) Initiative Baseline Survey is a probabilistic household survey of approximately 2,500 households across 100 villages in the Sahel. The survey was funded by the United States Agency for International Development (USAID), commissioned by The Mitchell Group (TMG), and overseen by the SAREL project team. The *Institut de Management, Conseils et Formations* (IMC), a consulting firm based in Ouagadougou, Burkina Faso, conducted the survey, which covered three regions in Burkina Faso (Eastern, Northern Center, and Sahel) and three in Niger (Zinder, Maradi, and Tillabery).

The aim of the study is to develop a rigorous initial data set that will serve as a baseline for evaluating the impact of the RISE initiative over time. The RISE initiative includes *Food for Peace* projects implemented by Catholic Relief Services, Mercy Corps, Save the Children, and ACDI/VOCA. It also includes the *Resilience and Economic Growth in the Sahel – Enhanced Resilience* (REGIS-ER) project, whose overall objective is to increase the resilience of chronically vulnerable populations in the agro-pastoral and marginal areas of Burkina Faso and Niger, and the *Resilience and Economic Growth in the Sahel - Accelerated Growth* (REGIS-AG) project, launched in FY 2014 and 2015, respectively.

In order to evaluate the impact of the RISE initiative, communities included in the data collection process were stratified into two zones: the High exposure zone constitutes villages that have received or are slated to receive support from any of the FFP projects (Pasam-Tai, LAHIA, and Sawki in Niger, and Faso and ViM in Burkina Faso), or the REGIS-ER project. The Low exposure zone is the set of comparable villages from which data are collected but which are not receiving any of the above-listed RISE interventions. This constitutes a control set against which the impact of the RISE interventions in the High exposure zones can be compared over time.

To collect the baseline data, enumerators, controllers and supervisors were shortlisted, selected, and trained. Enumeration teams worked across regions in the RISE area, simultaneously collecting data from Niger and Burkina Faso. Subsequent to the data collection, data cleaning, coding, and analysis took place. This report describes the data collection process and the baseline results obtained through this initial survey.

Outcomes of interest were organized around a set of core results and impact indicators derived from the RISE Performance Management Plan (PMP) and supplemented by more specific indicators from the REGIS-ER Performance Management Plan. In total, a list of 20 performance measurement indicators across a number of resilience-related

categories was prepared. Data from the baseline survey¹ indicate the following key results:

General Living Conditions

The population under study is largely rural and agricultural with low levels of education: over 80 percent of surveyed households practice agriculture, and over 85 percent of heads of households never attended school. Just nine percent of households are headed by women. The RISE study area is also highly susceptible to shocks. Overall, 92 percent of households report experiencing a shock over the past five years, due to factors such as conflict, natural disaster, or a death. Almost half were unable to recover from those shocks.

Poverty

More than one-third of the individuals surveyed in Burkina Faso and Niger live on less than US\$1.25 per day. The Niger RISE area is poorer than that of Burkina Faso. The data also indicate that poverty is especially a problem for households headed by single and divorced residents.

Hunger and Malnutrition

More than one in ten households in the RISE study area are affected by moderate to severe hunger. Furthermore, the Global Acute Malnutrition (GAM) rate in the region reaches 17.2 percent, and the share of stunted children and underweight children exceeds one-third of all surveyed children under five-years-old. Only 5.2 percent of children receive a Minimal Acceptable Diet (MAD), and 35 percent of children under six-months-old are exclusively breastfed.

Governance and Resilience to Shocks

55.9 percent of communities included in the survey have demonstrated some degree of good governance based on existence of natural resource management plans, conflict management systems, successful dispute mediation, and community development plans, which helps to combat the ill effect of shocks. However, only 13.2 percent of individuals report engaging with their local power structures, which complicates the ability of local governments to understand and address the needs of residents.

¹ *The indicator means reported in the Executive Summary and Summary Table are weighted means. In the text of this report, the indicator means are reported in both weighted and unweighted terms. All other means that appear in the report (i.e. regarding demographic statistics) are unweighted. We stress the weighted means for the indicators to capture the impact of the RISE interventions with utmost precision.*

Women's Roles

The RISE baseline survey includes an adapted version of the Women's Empowerment in Agriculture Index (WEAI); the score for the surveyed respondents in the RISE zone, based on the two components of Production and Resources (rather than the standard five-dimension scale), is 67.98. Approximately 75 percent of women are coded as participating effectively in their household decisions, meaning that by their own assessment, they participate to a medium or high degree in both the production decisions and the revenue decisions for at least *one* of five categories: cash crops, livestock, non-agricultural activities, employment, and fishing.

Cleanliness and Sanitation

While the practice of washing hands varies widely depending on the activity and context, very few households in the RISE zone (7.9%) have a dedicated soap-and-water handwashing station. Similarly, just 18.8 percent of households have a sanitation system for human waste that is covered or otherwise suited to preventing contamination. About two-thirds of households use an improved source of drinking water.

Limitations of Study

The methodology employed for the baseline RISE study, while appropriate and statistically rigorous, suffers from two principal limitations. First, the assignment to intervention programs was not stratified by country or region within the two countries. The methodology employed for the baseline study assigned villages across the entire RISE zone to one of two treatment types, labeled High exposure (which received the intervention programs) and Low exposure (which serve as a control, having not received the intervention programs). The communities assigned to each of these strata were selected through independent draws, ensuring a representative sample of communities. However, the RISE zone was treated as one area without attention to the country—Burkina Faso or Niger—in which those communities lie. This does not suggest that the results cannot be disaggregated by country. The drawback is that an imbalance in the selected number of communities exists across the two countries and is also pronounced across regions in the two countries. This does not have an important impact statistically, but it may impact perceptions about the representative nature of the data, and thus may potentially generate skepticism regarding the general findings.

Second, the methodology does not distinguish between the degree of interventions or the timing of their implementation. Some communities received both REGIS-ER and Food for Peace programs, while others received only one. Furthermore, some began well before the baseline evaluation took place. Data was gathered in April-May 2015, 8-12 months after REGIS-ER had begun implementing activities in its different target communities in Niger and Burkina Faso. The gap in timing was even longer for the DFAP projects; they initiated field work in the RISE zone in Burkina Faso in 2012, and in Niger in 2013. The baseline study was conducted on the assumption that the effects of those early interventions have not yet taken hold, and the decision to use a difference-

in-differences analytical approach buttresses against this concern to some degree since the change in outcomes over time will be compared in High and Low strata communities. Nevertheless, the degree and timing of exposure to interventions can be viewed as a methodological limitation, albeit one that often arises due to practical issues surrounding implementation timeframes and evaluation timeframes.

Next Steps

The RISE initiative is designed to strengthen resilience among chronically vulnerable populations in the marginalized area that spans Burkina Faso and Niger. The baseline survey provides rigorous empirical data that will serve as the foundation for evaluating the impact of RISE interventions over time and across the High exposure zone. As noted above, due to the staggered start-up dates of REGIS-ER and SAREL, the baseline data was gathered 8-12 months after REGIS-ER had begun implementing activities in its different target communities in Niger and Burkina Faso, and even longer for the five DFAP implementers. We stress that, at this initial stage, differences in the High and Low strata could be early evidence of program effects but are more likely a result of idiosyncratic factors. These differences must be noted now, however, in order to accurately determine the true effects of the RISE initiative after subsequent rounds of data collection.

Summary of Baseline RISE Indicator Outcomes

Indicator	Weighted Mean *	Confidence Interval	
		Lower bound	Upper bound
Indicator 1: Depth of Poverty (%)			
Overall Mean	12.4		
High Exposure Zone	12.2	9.5	15.0
Low Exposure Zone	12.7	8.4	17.0
Indicator 2: HH with Moderate/Severe Hunger (%)			
<i>No Hunger, Mean</i>	88.0		
High Exposure Zone	90.9	88.1	93.7
Low Exposure Zone	83.5	79.2	87.9
<i>Moderate Hunger, Mean</i>	10.1		
High Exposure Zone	8.5	5.8	11.2
Low Exposure Zone	12.7	9.5	15.8
<i>Severe Hunger, Mean</i>	1.8		
High Exposure Zone	0.7	0.2	1.1
Low Exposure Zone	3.8	1.9	5.7
Indicator 3a : Average Value of HH Assets (cfa)			
Overall mean	734,023.00 cfa		
High Exposure Zone	673,711.90 cfa	498,737.5	848,686.3
Low Exposure Zone	831,727.10 cfa	689,320.6	974,133.5
Indicator 3b: Asset Ownership (items)			
Overall Mean	51.14		
High Exposure Zone	48.96	42.35	55.57
Low Exposure Zone	54.67	46.89	62.44
Indicator 4: Prevalence of Poverty (%)			
Overall Mean	36.1		
High Exposure Zone	38.5	31.7	45.2
Low Exposure Zone	32.1	24.9	39.3
Indicator 5: Women's Empowerment in Agriculture Index (Index score, out of 100)			
Overall Mean	68.0		
High Exposure Zone	70.3		

Indicator	Weighted Mean *	Confidence Interval	
		Lower bound	Upper bound
Low Exposure Zone	64.2		
Indicator 6: HH with Income from Non-Agricultural Sources (%)			
Overall Mean	71.1		
High Exposure Zone	71.3	67.0	75.6
Low Exposure Zone	70.8	63.5	78.1
Important Source of Revenue, Mean	67.5		
High Exposure Zone	67.6	60.4	74.9
Low Exposure Zone	67.3	62.3	72.3
<i>Temporary Source of Revenue, Mean</i>	35.5		
High Exposure Zone	33.4	28.2	38.7
Low Exposure Zone	39.0	34.0	43.9
<i>Critical Source of Revenue, Mean</i>	24.3		
High Exposure Zone	22.9	17.0	28.9
Low Exposure Zone	26.6	22.2	31.0
Indicator 7: Communities with Evidence of Good Governance (%)			
Overall Mean	55.9		
High Exposure Zone	54.1	37.7	70.4
Low Exposure Zone	58.7	46.4	71.1
Indicator 8: Communities with Adequate Capacity to Manage Climate Shocks (%)			
Overall Mean	31.4		
High Exposure Zone	32.4		
Low Exposure Zone	30.2		
Indicator 9: Share of Individuals Engaging with Local Power Structures (%)			
Overall Mean	13.2		
High Exposure Zone	13.1	07.6	18.6
Low Exposure Zone	13.3	09.9	16.7
Indicator 10: Global Acute Malnutrition Rate (%)			
Overall Mean	17.2		
High Exposure Zone	16.2	13.8	18.7
Low Exposure Zone	18.7	16.1	21.4

Indicator	Weighted Mean *	Confidence Interval	
		Lower bound	Upper bound
Indicator 11: Prevalence of Stunted Children Under 5 (%)			
Overall Mean	42.5		
High Exposure Zone	43.2	38.3	48.2
Low Exposure Zone	41.4	37.7	45.1
Indicator 12: Prevalence of Underweight Children Under 5 (%)			
Overall Mean	32.7		
High Exposure Zone	32.0	27.1	36.9
Low Exposure Zone	33.9	30.3	37.6
Indicator 13: Share of HH Using Improved Drinking Water Source (%)			
Overall Mean	67.0		
High Exposure Zone	68.6	58.8	78.4
Low Exposure Zone	64.4	56.8	72.1
Indicator 14: Share of HH with Soap-and-Water Hand Washing Station (%)			
Overall Mean	7.9		
High Exposure Zone	9.8	6.7	12.9
Low Exposure Zone	4.9	2.7	7.2
Indicator 15: Share of HH Using Improved Sanitation System (%)			
Overall Mean	18.8		
High Exposure Zone	20.1	12.1	28.2
Low Exposure Zone	16.7	11.3	22.0
Indicator 16: Household Dietary Diversity (Score from 0-12)			
Overall Mean	5.125		
High Exposure Zone	5.041	4.637	5.445
Low Exposure Zone	5.260	4.855	5.666
Indicator 17: Share of Children Receiving Minimum Acceptable Diet (%)			
Overall Mean	5.2		

Indicator	Weighted Mean *	Confidence Interval	
		Lower bound	Upper bound
High Exposure Zone	4.9	2.2	7.6
Low Exposure Zone	5.7	3.5	7.9
Indicator 18: Prevalence of Exclusive Breastfeeding Under 6 Months Old (%)			
Overall Mean	35.1		
High Exposure Zone	37.8	29.3	46.4
Low Exposure Zone	30.7	23.4	37.9
Indicator 19: Proportion Supporting Equal Access for Males and Females (5%)			
Overall Mean	51.0		
High Exposure Zone	51.3	43.9	58.6
Low Exposure Zone	50.6	46.0	55.1
Indicator 20: Share of Women Reporting Effective Participation (%)			
Overall Mean	75.1		
High Exposure Zone	78.0	73.2	82.9
Low Exposure Zone	70.5	65.6	75.4
<i>Production Decisions, Mean</i>	79.8		
High Exposure Zone	82.4	78.3	86.5
Low Exposure Zone	75.6	71.4	79.7
<i>Income Decisions, Mean</i>	77.6		
High Exposure Zone	80.8	76.5	85.0
Low Exposure Zone	72.3	67.7	76.9

Note: * The weighted means, in bold, are determined by the mean for each exposure zone and the proportion of the sample drawn from each zone. See section 2.1.6.

1. INTRODUCTION

The *Resilience in the Sahel Enhanced* (RISE) Initiative Baseline Survey is a probabilistic household survey of approximately 2,500 households across 100 villages in the Sahel. The survey was funded by the United States Agency for International Development (USAID), commissioned by The Mitchell Group (TMG), and overseen by the SAREL project team. The *Institut de Management, Conseils et Formations* (IMC), a consulting firm based in Ouagadougou, Burkina Faso, conducted the survey, which covered three regions in Burkina Faso (Eastern, Northern Center, and Sahel) and three in Niger (Zinder, Maradi, and Tillabery).

The aim of the study is to develop a rigorous initial data set that will serve as a baseline for evaluating the impact of the RISE initiative over time. The RISE initiative includes *Food for Peace* projects implemented by Catholic Relief Services, Mercy Corps, Save the Children, and ACDI/VOCA. It also includes the *Resilience and Economic Growth in the Sahel – Enhanced Resilience* (REGIS-ER) project, the overall objective of which is to increase the resilience of chronically vulnerable populations in the agro-pastoral and marginal areas of Burkina Faso and Niger, and the *Resilience and Economic Growth in the Sahel - Accelerated Growth* (REGIS-AG) project, launched in FY 2014 and 2015, respectively.

In order to evaluate the impact of the RISE initiatives, communities included in the data collection process were stratified into two zones: the High exposure zone constitutes villages that have received or are slated to receive support from any of the FFP projects (Pasam-Tai, LAHIA, and Sawki in Niger, and Faso and ViM in Burkina Faso), or the REGIS-ER project. The Low exposure zone is the set of comparable villages from which data are collected but which are not receiving any of the above-listed RISE interventions. This constitutes a control set against which the impact of the RISE initiative in the High exposure zone can be compared over time. As subsequent rounds of data are collected, the research design will allow for a difference-in-differences analysis: change from the baseline results to subsequent results in the High exposure zone can be compared to the change from baseline results to subsequent results in the Low exposure zone. The differences that emerge over time in each strata should capture the effects of the RISE initiative.

To collect the baseline data, enumerators, controllers and supervisors were shortlisted, selected, and trained. Enumeration teams worked across regions in the RISE area, simultaneously collecting data from Niger and Burkina Faso. Subsequent to the data collection, data cleaning, coding, and analysis took place. This report describes the data collection process and the baseline results.

1.1 Overview of the RISE Initiative

RISE stands for “Resilience in the Sahel Enhanced”. USAID defines resilience as the capacity of affected people, households, communities, countries and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth. The reasons behind USAID’s decision to invest in resilience strengthening in the Sahel include:

- The need to move beyond humanitarian responses that are very effective in saving lives, reducing suffering, and protecting productive assets in periods of crisis, but that are not designed to address root causes of chronic vulnerability
- The high human and financial costs of chronic humanitarian assistance
- The impediments that chronic vulnerability pose to economic growth
- The cyclical impact of weak economic growth on the capacity of individuals, households, communities and systems to mitigate, adapt to, and overcome shocks and stresses
- The evidence available (e.g. DfiD study in Kenya) that investments in resilience can result in significant savings in humanitarian outlays.

According to the theory of change that underlies USAID’s RISE initiative, resilience in the Sahel can be strengthened through an improved sequencing, layering and integration of humanitarian and development interventions, and the strengthening and adaptation of successful, ongoing innovations. This will result in a reduction of risks and a strengthening of resilience, and will facilitate inclusive economic growth in the targeted Sahel zone. This theory hinges on several important assumptions. It assumes that benefits in one area of household or community well-being will facilitate improvements in other areas. For example, improvements in access to local authorities should generate advantages that in turn facilitate improvements in household nutrition, and improvements in nutrition are themselves critical for improving household level productivity and revenue. Second, the theory of change assumes that the benefits of programs are measurable and distinguishable, so that when different humanitarian and development interventions are layered and sequenced, implementing partners can determine, at least to some degree, which programs have important additive value. Finally, the theory of change assumes that certain types of interventions are critical to implement immediately and others are best suited as follow-on activities, otherwise, there is no logic to an improved method of sequencing and layering. The theory of change suggests that developing a best approach to sequencing, layering, and integrating is possible and indeed important, though determining what exactly that best approach is depends on the development, testing and validation of interventions that prove effective, durable and sensitive to context-specific factors.

The theory of change assumes that partner governments will provide a favorable policy environment for the implementation of RISE activities and that they will be capable of providing public safety and basic social and economic services to their citizens. RISE achievements in the area of nutrition, for example, could easily be

undermined by a breakdown in the public health system's management of malaria. Any number of unanticipated external crises, of course, could jeopardize attainment of RISE's objectives or attenuate results. These would include prolonged political instability, armed conflict, an epidemic, or a major drought.

The RISE initiative includes:

- Ongoing Food For Peace (FFP) projects (underway since 2012): Pasam-Tai (CRS), Sawki (Mercy Corps), et LAHIA (Save the Children) in Niger, and FASO (CRS) et VIM (ACDI/VOCA) in Burkina, and
- New projects launched in 2014 and 2015:
 - Resilience and Economic Growth in the Sahel – Enhanced Resilience (REGIS-ER)
 - Resilience and Economic Growth in the Sahel – Accelerated Growth (REGIS-AG)
 - Sahel Resilience Learning Project (SAREL).

RISE project beneficiary communities and villages are selected based on both quantitative and qualitative criteria, taking into account vulnerability, natural resource endowments, irrigation and horticultural land potential (i.e. gardening, arboriculture), accessibility, and human and property security.

1.1.1. Goal and Objectives of RISE

The overarching goal of RISE is ***increased resilience of chronically vulnerable populations in agro-pastoral and marginal agriculture livelihood zones of the Sahel.***

In order to attain that goal, several important result areas were identified that are grouped around three specific objectives:

Objective 1: Increased and Sustainable Economic Well Being (Income, food access, assets, adaptive capacity)

To attain this objective, the following major intermediate results are identified:

- Diversified economic opportunities
- Intensified production and marketing
- Improved access to financial services
- Increase of market infrastructures

Objective 2: Strengthened Institutions and Governance

The major intermediate results identified to attain this objective revolve around:

- Strengthened NRM

- Disaster risk management
- Strengthened conflict management
- Strengthened government and regional capacity and coordination

Objective 3: Improved Health and Nutrition Status (Maternal and child health, Family Planning, WASH, Nutrition)

To attain this objective, the following major intermediate results are identified:

- Increased access to potable water
- Improved health and nutrition practices

Among the major impacts expected from the five years' of implementation of the combined RISE initiative interventions are:

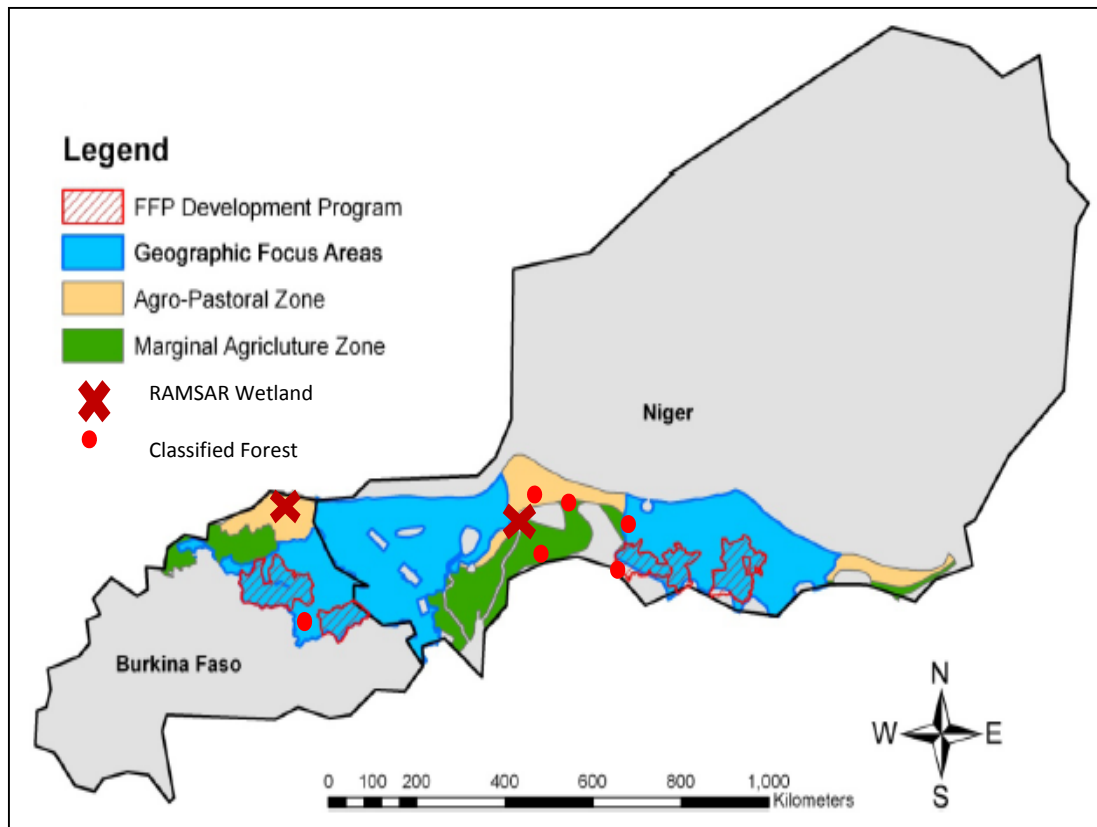
- 375,000 fewer people will require humanitarian assistance during a drought of 2011 magnitude.
- Global Acute Malnutrition (GAM) rates reduced from near 15% to below 10% in target communes.
- Depth of poverty amongst poor households reduced by 20% in targeted communes (It has to move from 22% to less than 17.5%).
- Prevalence of severely/moderately hungry households reduced by 20% in targeted communes (It has to move from 28% to less than 22.5%).
- 237,500 vulnerable households will be benefitting directly from USG interventions (8 persons per household in average)

1.1.2. Coverage and Target Groups

The map below provides an illustration of the RISE study area².

² See complete list of sample villages in Appendix D.

Figure 1.1. Map of the RISE Study Area.



The geographical coverage of this baseline survey is the RISE study area, which stretches across the Niger-Burkina Faso border. Included in this area are three regions in Niger (Zinder, Maradi and Tillabery) and three in Burkina Faso (Eastern, Northern Center, and Sahel).

1.2 Overview of the SAREL Project

The Sahel Resilience Learning (SAREL) Project is a five-year (2014-2019) project funded by USAID and implemented by The Mitchell Group (TMG), a US-based development consulting firm, in collaboration with a consortium of partners.

The objective of the SAREL project is to provide monitoring, evaluation, collaboration and learning support to USAID's RISE Initiative. As such, the SAREL Project is not a standalone intervention, but instead builds on the different resilience projects funded by USAID in the regions mentioned above.

The expected results of SAREL are: 1) to test, extend, and accelerate the adoption of proven technologies to build resilience and innovations already underway; 2) to develop, test, and catalyze widespread adoption of new models integrating

humanitarian and development assistance; 3) to promote ownership, build the capacity of national and regional institutions, and coordinate humanitarian development interventions in the areas of influence; 4) to address gender issues critical to resilience and growth; and 5) to create a knowledge management database that will house the baseline assessment, routine monitoring data and impact assessments for REGIS-ER and REGIS-AG.

1.3 Overview of the Baseline Study

The baseline survey is intended to provide village-, household-, and individual-level data that will serve as a starting point for monitoring the progress made by the RISE initiative. Ultimately, this data will be useful in measuring the RISE initiative's impact at the end of its implementation. The data collection focuses on a set of core results and impact indicators derived from the RISE Performance Measurement Plan (PMP) and supplemented by more specific indicators from the REGIS-ER Performance Measurement Plan. In total, 20 performance measurement indicators were identified for reporting the baseline survey data.

The key methodological survey design elements for this population based survey – including the stratification strategy, base sample size determination, and sampling protocol – were developed in close consultation with USAID and with the technical support of the *Institut Supérieur des Sciences de la Population* (Université de Ouagadougou) in November–December 2014³.

The survey instruments include a Household Questionnaire, a Gender Questionnaire, a Food Consumption and a Child Anthropometry Questionnaire, and a Village Questionnaire. The development of the RISE survey instruments drew extensively from questionnaires used in the USAID Ethiopia PRIME baseline study, though SAREL made numerous adaptations and additions.

SAREL sought and obtained the support of national administrative authorities in Niger (*Ministère de l'Intérieur, de Sécurité Publique, de la Décentralisation et des Affaires Coutumières et Religieuses*) and Burkina Faso (*Ministère de l'Administration Territoriale, de la Décentralisation et de la Sécurité*) to carry out the baseline survey. Their instructions to local administrative authorities at the regional, and departmental/provincial levels and communal officials greatly facilitated the information missions conducted by SAREL and partner CESAO in advance of the field data collection.

³ Proposed Methodology for the RISE Baseline Survey, produced by TMG, Inc. with the assistance of the *Institut Supérieur des Sciences de la Population*, October 2015.

Based on information gathered on institutional review board (IRB) mechanisms and procedures mechanisms available in Niger and Burkina Faso, SAREL did not seek or obtain IRB approval for the baseline survey in either country. The reasons were as follows. In Niger, a proposed IRB mechanism and process has been developed by the Ministry of Plan, but had not yet been approved by the Government for implementation. The IRB mechanism (*Comité d'éthique*) established in Burkina Faso has a mandate that is focused specifically on health research. Although the committee's mandate could have been stretched to include the RISE baseline study, its approval was not required, and seeking it would have resulted in a one to two-month delay in survey implementation, pushing it into the rainy season.

2. METHODOLOGY

This section describes the methodology used for the data collection.

2.1 Data Collection

Data was collected from April 29 through May 30, 2015 simultaneously in Burkina Faso and Niger. Data was drawn from 100 villages, with a sample of 25 households per village.

Data collection teams consisted of one controller and two mixed pairs of investigators (two women and two men). One area supervisor was responsible for each region, thus amounting to a total of six area supervisors; each of them oversaw the work of four enumeration teams. Area supervisors themselves were under the responsibility of two general supervisors, one in each country. The entire field data collection team fell under the supervision of a project coordinator. Regular and sustained coordination, supervision, collaboration, and quality control efforts undertaken by SAREL and IMC allowed for minor adjustments and corrections during the course of the data collection.

Apart from organizing enumeration teams, a series of steps were taken to facilitate data collection. Teams received logistical and financial resources for the operation kick-off, as well as questionnaires packets (for household, gender, consumption, and village questionnaires), manuals, enumeration sheets and sample selection sheets. Office supplies and other equipment such as scales, height gauges, and flashlights were made available to the enumeration teams via their area supervisors.

Data collection was conducted by the survey teams as described below:

- Upon their arrival in the village, the teams organized a village meeting at the home of the village chief (who was informed of the survey several weeks in advance of the team's arrival by SAREL partner, CESA0, that conducted sensitization/information visits to all sample villages) in the presence of community members, to explain (again) the purpose of the survey, how it would be conducted, and the length of their stay in the village. This step is indispensable for preparing the work to follow, and is aimed at securing the agreement and collaboration of the population.
- Determination of the number of neighborhoods that form the village and the complete enumeration, by neighborhood, of all the households by the survey teams ;
- Amalgamation of the results of household enumeration and the sequential renumbering of households by the controller ;
- Random selection of households by the controller (total of 28, including 25 sample households and 3 replacement households) ;
- Assignment of households to survey teams by the controller ;

- Carrying out of interviews and completion of questionnaires by surveyors in the households selected ;
- Review and correction of household questionnaires by the controller as they are submitted by the survey teams ;
- Carrying out of community interviews and completion of questionnaires by the controller.

Prior to team deployment in the field, SAREL dispatched missions from the West African Center for Economic and Social Studies (CESAO) to provide information to local administrative authorities (governors, *préfets* and mayors) and customary leaders (cantons, tribe and village chiefs). Those missions also had the responsibility of raising awareness in the communities regarding the survey topics. Doing so not only helped to gain buy-in for the baseline study activity but also served to ensure that households would welcome and accommodate enumerators.

2.1.1. Data Collection Objectives

The objective of the data collection is to obtain quantitative data necessary for the establishment of baseline measures related to the RISE Performance Measurement Indicators. Those baseline measures create a base for monitoring and evaluating impact of the RISE Initiative in Niger and Burkina Faso over time.

2.1.2. Questionnaire Description

Household Questionnaire

The Household Questionnaire, undertaken with the head of household or his/her household representative, was used to record all household members along with their demographic and socioeconomic characteristics: age, sex, relationship to the head of household, ethnicity, highest educational attainment, marital status, primary occupation, etc. It was also used to collect data on housing characteristics, shocks sustained by the household, assets, livestock, access to land and information, production, household expenditures and much more. The purpose of the Household Questionnaire was to capture data on the family environment of individuals and to provide baseline data for the calculation of household-related indicators. In addition, this survey instrument provided the framework for identifying children under five years of age, from whom additional data was gathered, and to identify women who would answer the Gender Questionnaire.

Food Consumption and Child Anthropometry Questionnaire

This survey instrument was used to gather information on children under five years of age. Data on consumption and dietary diversity, hunger in households, anthropometry (i.e. child height and weight), nutritional status, and dietary practices were collected.

Gender Questionnaire

This questionnaire aimed primarily to measure the inclusion of women in agricultural sector growth and in household decision making. It was submitted to the wives of the heads of households, presumed to be centrally involved in life of the household. In the event of a female-headed household, the head of household herself was surveyed. Data on women's participation in decision making, especially regarding production and income generating activities, was collected through this survey instrument.

Village Questionnaire

This questionnaire served as framework for gathering data on the villages where the household-level data collection operations took place. Village characteristics, community infrastructure and services, community organization types, various governmental and NGO programs, shocks, climate shock management, land management, and village governance structures are among the categories of data captured through this instrument.

The Community questionnaire was designed to allow the collection of general information about the village, notably its social organization, infrastructures, resource management, conflict prevention and management mechanisms, governance, community organizations, access to markets and basic social services, partnerships, shocks experienced, and coping strategies.

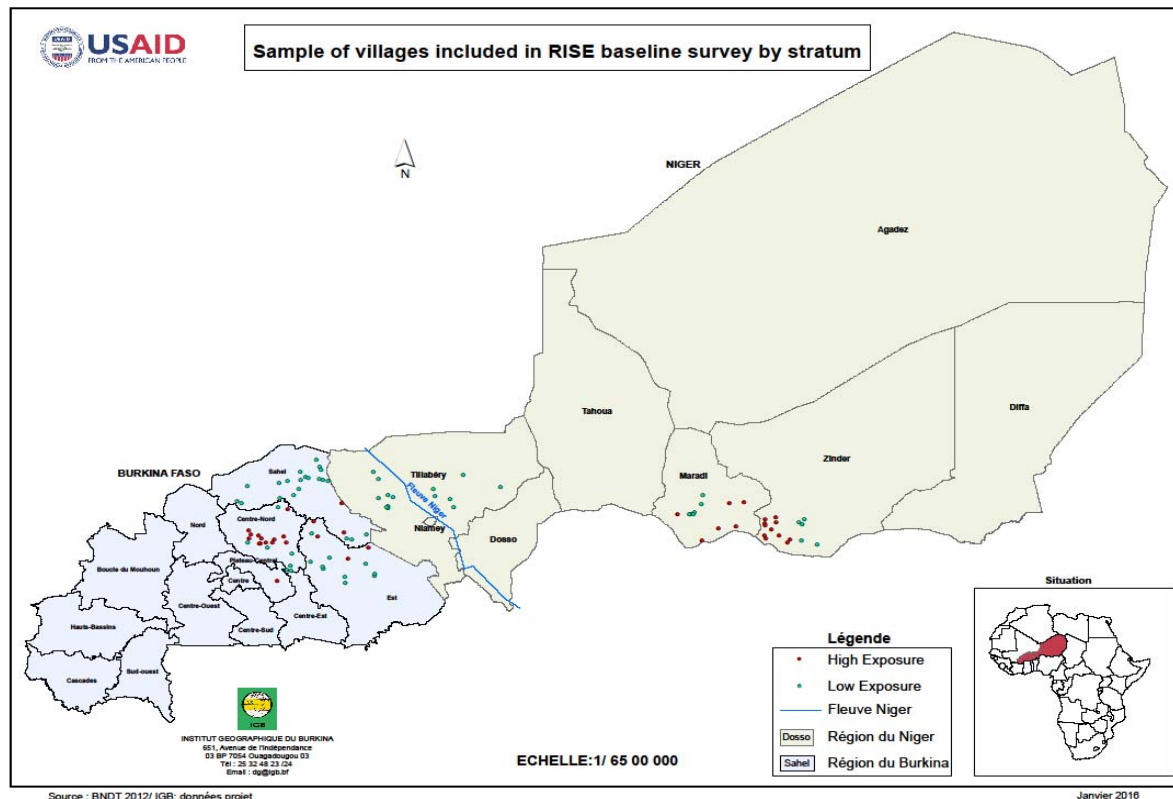
In contrast with the Household survey, the Community questionnaire is completed with a group of five to ten respondents selected for interview, including the village chief, opinion leaders, civil servants who have lived in the village for a long time and who have a very good knowledge of it (e.g. teacher, nurse), and selected women of the village

2.1.3. Sampling

In order to effectively measure the impact of the RISE program interventions, the research design for the study must include a satisfactory counterfactual. That is, intervention areas must be compared to plausibly comparable areas that did not receive those interventions. To establish a counterfactual, SAREL used a quasi-experimental research method that matches intervention communities with similar control communities. Thus, as noted above, two strata were defined based on the degree of exposure (“High” or “Low”) to RISE interventions in Burkina Faso and Niger. In agreement with USAID, SAREL has defined the High exposure zone as all communities/villages where (1) the REGIS-ER Project intervenes alone or intends to do so during the first three years of intervention (i.e., by late December 2016); (2) the REGIS-ER and FFP Projects jointly intervene; or (3) FFP intervenes alone. The Low exposure zone consists of communities/villages in the RISE intervention area which do not benefit from REGIS-ER or FFP interventions and will not do so in the next five years. This stratum therefore serves as an implicit control area from which a sample of communities/villages resembling the intervention communities/villages as closely as possible was drawn. Figure 2.1 below indicates the location of the 37 High exposure and 63 Low exposure villages that comprise the RISE baseline survey sample. (List of sample villages and their geographic coordinates is provided in Appendix D).

The selection of surveyed households took place in the field, based on the list of households in each surveyed village, after all households in the village were identified (using updated print lists). To achieve the desired sample size of 25 households per village, 28 were drawn in systematic random fashion, allowing for three reserves in the event that replacement was necessary.

Figure 2.1



2.1.4. Enumerator Training

In compliance with the approach adopted for the study, IMC first shortlisted candidates in both countries for enumerator positions, based on a number of criteria defined in the methodology note. A training phase followed from April 7-17, 2015, simultaneously in Niamey and Ouagadougou in compliance with the schedule. A technical team consisting of managers and representatives of IMC and PAAQ Wadata, in collaboration with members of the SAREL Project, then conducted the training in each country. The training focused on participants' understanding and mastery not only of data collection tools (questionnaires, manuals, and glossaries) but also of household sampling procedures and identification of other survey targets (for example, children under five years of age for the anthropometry modules).

During the training session, regular exchange of information allowed trainers from each organization involved to share observations and amendments. When necessary, this exchange occurred via internet or by telephone, allowing for real time decisions on new instructions in the event that the implicated experts were not present with the trainees. Supervisors were also organized in reporting teams vested with the responsibility of submitting a daily report, which served to strengthen their skills and capacity. Survey instruments and other necessary documents and tools were finalized through the process of training and collaboration.

Pilot Survey

In each country, a one-day pilot survey was conducted in localities close to the capital cities of Ouagadougou, Burkina Faso and Niamey, Niger. Administrative officials of the villages selected for this exercise—including both mayors and traditional leaders—were first consulted to obtain their consent before the pilot survey was started. To ease the administrative burden of the pilot survey, enumerator candidates were divided based on their command of languages spoken by the villagers and were organized in pairs that included an enumerator to administer the Household Questionnaire and another to administer the Gender Questionnaire, on the understanding that both would ensure all anthropometric measurements.

Representatives of IMC and the SAREL Technical Team provided supervision in both countries. All enumerator candidates had the opportunity to practice handling different data collection tools and survey instruments. At the end of the pilot survey, a debriefing session was held in each country to discuss lessons learned, findings, and recommendations.

Final Selection of Field Staff

Shortlisted candidates took a written test after the training session and the pilot survey and a final list of selected enumerators was published. 45 candidates were selected via this process in Burkina Faso and a team of 28 was assembled in Niger.

In each country, a waiting list was also prepared as a provision for potential replacements in case of staff withdrawals.

Successful enumerators were divided into teams based on the survey demands for different regions, as well as their knowledge of local languages and specific targeted areas. 16 teams in total, each comprising a controller and two mixed pairs, were formed. Each Area Supervisor, assigned to one of the six regions in Burkina Faso and Niger, supervised between two and four controllers and their respective enumerators. All staff reported to one of two General Supervisors, one per country. Both General Supervisors reported to the Survey Coordinator.

It should be emphasized that controllers received additional training on the management of field teams. They also undertook added instruction for the administration of the Community Questionnaire, since that instrument involved data collection from village stakeholders rather than households.

2.1.5. Number of Households Covered

Data was collected from 2,492 out of the 2,500 sampled households, constituting a success rate of 99.64%. Missing observations are generally explained by the fact that in some villages, the number of listed households amounted to less than the predetermined sample size of 25 households per village. In other cases, enumerators had used up the number of randomly selected households and replacements (totaling 28) without reaching the desired number of 25 households. A second round of data collection to supplement missing data or rectify identification errors was necessary in some villages, particularly in Niger.

2.1.6. Sampling Weights

For each of the strata, household- and community-level sample weights were calculated to account for the fact that households and villages had a different probability of being included in the sample across the High and Low exposure zones. The sampling weight is the inverse of the probability of inclusion, based on the total number of households/villages in the zone and the number sampled.

Table 2.1 presents the sampling weights and standardized weights for households and communities surveyed in the baseline study. Concretely, the sampling weight is the proportion of the population in each stratum divided by the proportion of the sample drawn from that stratum. The standardized weight is the proportion of the total sampling weight attributed to each of the strata. For each indicator of interest, this standardized weight is multiplied by the mean in each of the High/Low strata; those standardized means for the two strata are then added together to determine the standardized mean for the indicator across the RISE zone.

Table 2.1. Sampling Weights for Households and Communities in the RISE Zone

HOUSEHOLD						
Stratum	Population		Sample		Sampling Weight	Standardized Weight
	No. of HH	Prop. of HH	No. of HH	Prop. of HH		
High	263,903	0.48840	924	0.37079	1.31719	0.61832
Low	276,441	0.51160	1568	0.62921	0.81308	0.38168
COMMUNITY						
Stratum	Population		Sample		Sampling Weight	Standardized Weight
	No. of Villages	Prop. of Villages	No. of Villages	Prop. of Villages		
High	1,702	0.39037	37	0.37000	1.05505	0.5216
Low	2,658	0.60963	63	0.63000	0.96767	0.4784

Note that the indicator means reported in the summary table at the outset are weighted means. In the text of this report, the indicator means are reported in both weighted and unweighted terms. All other means that appear in the report (i.e. regarding demographic statistics) are unweighted. We stress the weighted means for the indicators to capture the impact of the RISE interventions with utmost precision.

2.1.7. Difficulties Encountered during Data Collection

The main difficulties encountered during the RISE baseline survey data collection process centered around logistical, technical, and communications demands in both countries. While the enumeration teams successfully overcame these challenges in most cases, they should nevertheless be taken into account for future data collection missions. They include:

- Some modifications proposed during final surveyor training not incorporated in the final versions of the survey instruments
- Motorcycles proved ill-adapted in Burkina Faso for transporting heavy or bulky loads (surveyors' baggage, questionnaires, scales, etc.)
- Insufficient number of vehicles available to field teams in Niger during first week
- Lack of local historical calendars to help in determining children's ages in months
- Large size of some primary sampling units which slowed the data collection
- Lack of interpreters for communication with Tamasheq-speaking households
- Delayed household mobilization on market days.

It should be noted that despite a few difficulties as indicated above, by and large, the data collection effort proceeded smoothly and according to schedule. The surveyor transport issues were rapidly resolved by renting additional vehicles for surveyor

deployment (Niger) and using public transport for remote locations (Burkina Faso). The absence of local historical calendars and the large size of primary sampling units were problems limited to Burkina Faso, and latter problem was encountered in only three of the 58 sample communities. Likewise, the survey teams had to find Tamasheq-speaking interpreters in only one Niger village.

The principal lessons that will be retained to guide the conduct of the mid-term and final evaluations are the following:

- In Burkina Faso, organize the deployment of groups of surveyors by vehicle in: 1) localities that are more than 50 km distant from major towns and that are not served by public transport, and; 2) all locations in zones affected by insecurity. For the latter zones, SAREL will seek advice and guidance from local authorities and solicit their support, as needed, with surveyor travel.
- Verify the presence of ethnic minorities in sample communities and ensure that that surveyors have adequate command of those languages to survey and interview households from those groups ;
- Strengthen the selection process for survey controllers to ensure they have the qualifications required to critically and rigorously review completed questionnaires ;
- Ensure that scheduling of interviews by survey teams takes full account of the availability of household members with regard to market days and to their religious obligations on Friday (Muslims) and Sunday (Christians).

2.2 Exploitation of the Data Collected

Following the data collection phase in the field, the collected data was analyzed using a two-step process consisting of data processing and report writing.

2.2.1. Data Processing

Processing of data consisted of four principal components: a systematic, manual check of all completed questionnaires; data entry; quality control of data entered; and file cleaning.

Checking and Coding Completed Questionnaires

When questionnaires were brought back from the field, a team of the best four enumerators and supervisors was established by IMC to check the data. The goal was to prepare all questionnaires for a systematic data entry process. During this work, the staff also coded some open-ended questions that could not be coded directly in the field. This allowed for a straightforward and efficient data entry process.

Data Entry and Quality Control

Data entry was carried out by a dozen staff members previously trained in understanding the survey instruments, input templates, and data entry protocols. Two Input Controllers recruited and trained specifically for the task supervised the organization and technical monitoring of the staff members' work. They were responsible for verifying the accuracy and completeness of the recorded data. Controllers brought the staff's attention to any entry errors they spotted so that corrections could be made efficiently before continuing the work. The Input Controllers themselves were supervised by the computer processing specialist. The IMC Technical Team ensured overall monitoring of the activity to meet the deadlines and guarantee proper functioning of logistics.

File Cleaning

Data entry quality largely depends on its cleaning process. In this case, it is worth noting that one of the requirements from SAREL was that IMC conduct double manual entry of all data for processing, meaning that the data from each questionnaire were entered twice, by two different data entry staff members. IMC met this requirement, and in so doing was able to conduct data corrections at the entry stage; this can be considered a first level of file cleaning. Double entry made the overall data cleaning process significantly easier.

Indicator Calculations

Once the cleaned data files were made available, IMC calculated the desired indicators. These were processed using descriptive analytical methods, including bivariate analysis, following the analysis plan for the baseline data with the support of TMG, SAREL, and IMC Technical Teams. In addition to the key indicators desired as part of the RISE program, IMC also calculated a number of indicators that shed additional light on the living conditions of households in the RISE zone.

2.2.2. Report Preparation

This Baseline Study Report was developed in two stages. Initially, IMC submitted an Interim Report to the SAREL Technical Team in order to review the work completed. Comments and other amendments made by this team were discussed at a debriefing workshop hosted by IMC for this purpose. Following the workshop, IMC incorporated the outcomes of the discussions in a provisional final survey report, which SAREL then finalized.

2.2.3. Limitations of the baseline study

The methodology employed for the baseline RISE study, while appropriate and statistically rigorous, suffers from two principal limitations. First, the assignment to intervention programs was not stratified by country or region within the two countries. To be clear, stratification in this case would mean that predetermined shares of intervention sites and control sites were allotted to each country area, in the event that systematic differences exist across those country areas. The process could also be taken a step further to ensure that each province within those countries received a predetermined share of intervention villages and control villages. The methodology employed for the baseline study assigned villages across the entire RISE zone to one of two treatment types, labeled High exposure (which received the intervention programs) and Low exposure (which serve as a control, having not received the intervention programs). The communities assigned to each of these strata were selected through independent draws, ensuring a representative sample of communities. However, the RISE zone was treated as one area without attention to the country—Burkina Faso or Niger—in which those communities lie. This does not suggest that the results cannot be disaggregated by country; they certainly can. The drawback is that an imbalance in the selected number of communities exists across the two countries and is also pronounced across regions in the two countries. This does not have an important impact statistically, but it may impact perceptions about the representative nature of the data, and thus may potentially generate skepticism regarding the general findings. More importantly, the fact that stratification did not occur across the two countries or regions within those countries means that some areas have an excess of control villages versus villages that received interventions. For example, one region in Niger has only Low exposure villages and no High exposure villages. If responses in that area differ from elsewhere, we would not be able to determine whether the outcome has something to do with the RISE programs or whether it is idiosyncratic. This limitation does not threaten the results of the study, but it can potentially leave questions regarding impact unanswered in certain places.

Second, the methodology does not distinguish between the degree of interventions or the timing of their implementation. Some communities received both REGIS-ER and Food for Peace programs, while others received only one. Furthermore, some began well before the baseline evaluation took place, as early as December 2014. We conducted the baseline evaluation on the assumption that the effects of those early interventions have not yet taken hold, and the decision to use a difference-in-differences analytical approach buttresses against this concern to some degree since the change in outcomes over time will be compared in High and Low strata communities. Nevertheless, the degree and timing of exposure to interventions can be viewed as a methodological limitation, albeit one that often arises due to practical issues surrounding implementation timeframes and evaluation timeframes.

3. HOUSEHOLDS AND COMMUNITIES

Understanding household living conditions in the RISE area is crucial to understanding their resilience. This chapter details some key household sociodemographic and economic characteristics that together create an overview of the living conditions of residents in the RISE study area.

3.1 Demographic Characteristics of Surveyed Population

The demographic characteristics analyzed in this section include gender, age, marital status etc.

3.1.1. Structure of Population by Sex

Among the approximately 2,500 households included in the baseline survey were nearly 19,000 individuals. Consistent with expectations, Table 3.1 indicates that just over half are female. Females, it should be noted, are the predominant target population for several of the RISE indicators.

Table 3.1 : Population Distribution by Sex

Sex	Headcount	Percentage (%)
Male	9, 143	48.9
Female	9, 567	51.1
Total	18, 710	100.0

3.1.2. Population Age Central Trend

Overall, the average age of the population of the surveyed communities was 19 and the median age was 13. This figure does not differ significantly across males and females (see Table 3.2). We note that far over half of the population in the RISE study area has the status of minor, leaving responsibility for many people in the hands of heads of households, parents, and other adults.

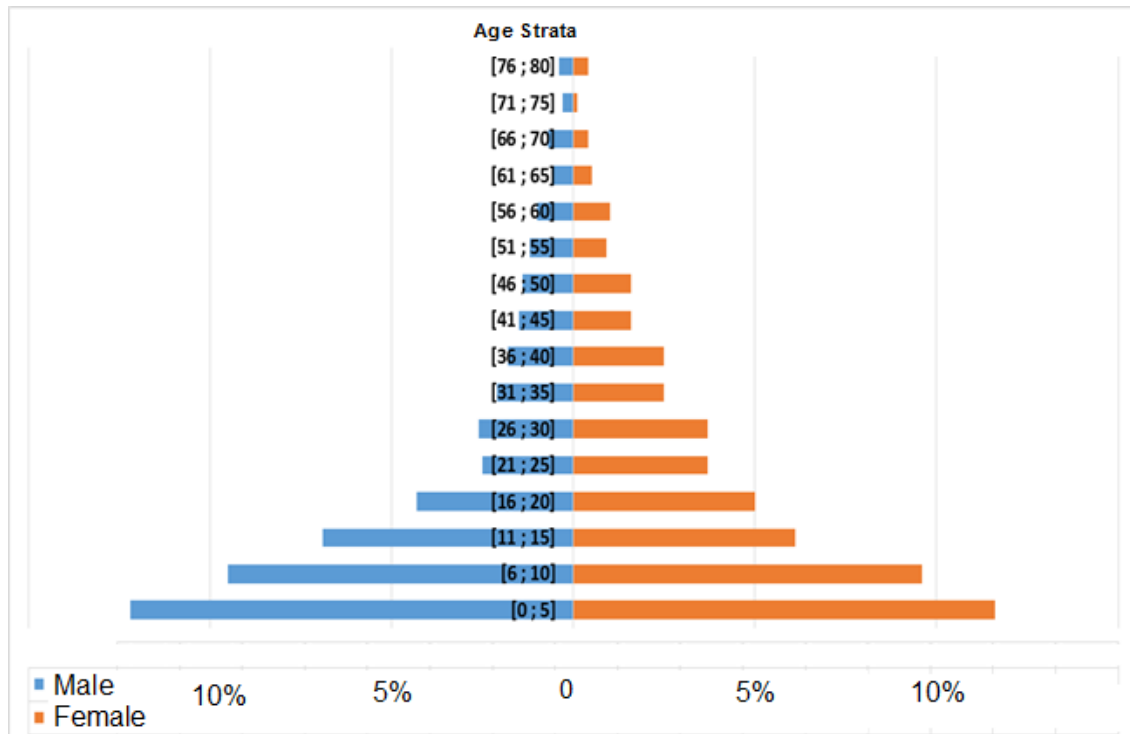
Table 3.2: Average and Median Age by Sex

	Age	
	Average	Median
Sex		
Male	19	12
Female	20	14
Together	19	13.0

3.1.3. Population Age Structure (Women/Men)

Figure 3.1 provides additional information on the population by age and sex. The bottom three levels combined indicate that fully 56% of the surveyed population is younger than 16 years old.

Figure 3.1 : Population Age Structure



3.1.4. Relationship to Head of Household

Households consist of many types of people who maintain various relationships to the head of household. The sons and daughters of the heads of households account for about 53.2% of the surveyed population, and spouses 16.3% (see Table 3.3).

Table 3.3: Relationship to Head of Household

Relationship to Head of Household	Headcount	Percentage (%)
Household Head	2,492	13.3
Spouse (wife/husband)	3,048	16.3
Own son/daughter	9,958	53.2
Child from spouse's other marriage	49	.3
Step-son/step-daughter	396	2.1
Grandson/granddaughter	1,026	5.5
Brother/sister	427	2.3
(Biological) parent father/mother	290	1.6
Step-father/step-mother	28	,1
Niece/nephew	617	3.3
Co-wife	16	,1
House Help	6	,0
Another household member	352	1.9
Total	18,705	100.0

3.1.5. Marital Status of Population Aged 12 or Over

As Table 3.4 illustrates, the population aged 12 and over consists predominantly of married persons--62.1%, including 38.7% monogamous and 23.4% polygamous. 32% have never been married.

Table 3.4: Marital Status of the Population

Marital Status	Headcount	Percentage (%)
Never got married	3,373	32.7
Married, monogamous	3,993	38.7
Married, polygamous	2,416	23.4
Cohabitation	31	0.3
Divorced/separated	110	1.1
Widow(er)	401	3.9
Total	10,324	100

3.2 Household Characteristics

3.2.1. Size and Composition of Households

A household (HH) is defined as a group of persons living under the same roof or in connected lodgings having a shared arrangement for production and consumption, and that recognizes the authority of a household head. A household can be composed of a single person, but in general it includes a husband, his wife (or wives), their children, their parents, etc.

The average number of household members in the 2,492 RISE zone households surveyed was 7.5. Average household sizes in the two countries are very similar (7.8 persons in Burkina Faso, and 7.1 in Niger). In the Burkina Faso study region, households of 7-10 people are the most common, accounting for 34% of all households, followed by households with 4-6 people (33.8%). The corresponding proportions in Niger are 33.1 and 36%. The Burkina Faso study region has a higher percentage of households with over 10 people (20% of households) compared to Niger (15.1%). Conversely, the Niger study zone has a higher percentage of households of fewer than 4 persons (15.9%) than the Burkina Faso study zone (11.7%). The largest households surveyed in Burkina Faso and Niger had 53 and 31 members, respectively.

Table 3.5: Household Size

Household Size	Burkina Faso			Niger			Overall Total
	Low (%)	High (%)	Total (%)	Low (%)	High (%)	Total (%)	
Fewer than 4 persons	11.3	12.6	11.7	16.2	15.5	15.9	13.5%
4 - 6 persons	34.9	31.8	33.8	35.9	36.0	36.0	34.7%
7 - 10 persons	34.8	32.6	34.0	32.4	34.1	33.1	33.6%
More than 10	19.0	23.0	20.4	15.5	14.4	15.1	18.1%
Overall Total	100%	100%	100%	100%	100%	100%	100%

3.2.2. Characteristics of Heads of Household

In terms of gender, of the 2,492 households surveyed as part of the RISE baseline study, 91% are headed by men.

55% of household heads are aged between 25 and 49, whereas 36.5% are over 50. Heads of households aged under 25 account for less than 10% of all households in the study area. By sex, the proportion of heads of households aged under 25 is 7.6% for men and 10.5% for women. Furthermore, the results show a significant proportion of female heads of household aged 50 and older. They account for 58.9% of female heads of households, compared to 35.3% of male Heads of Household in this age group (see Table 3.6). The difference owes to a greater relative number of widows than widowers, as shown below.

Throughout the RISE area, male Heads of Household were the most numerous (24.4%) in the Hausa ethnic group while female Heads of Household were most common among the Mossi ethnic group (29.7%). Regarding ethnicity more generally, Table 3.6 indicates that Hausa households are the most numerous (23.8%) in the study area, followed by the Mossi (22%) and Fulani/Peul (20.7%).

The table also shows that a significant share of heads of household practice agriculture as their primary activity. Indeed, over 80% of all household heads primarily practiced agriculture at the time of the survey. Livestock and trade follow with 5.6% and 4.2% of household heads, respectively. Based on the sex of the head of household, men outnumber women in agriculture (82.1% vs. 63.9%). It is also worth noting that female heads of household are more involved in trade compared to men.

Marital status differs significantly by the gender of the Head of Household. As Figure 3.2 illustrates, 61.2% of female heads of household live in a situation of marital breakdown, including 53.4% who are widows and 7.8% divorced or separated. Only 1% of male Heads of Household are in this situation. Moreover, we note that more than two-thirds (66.8%) of men surveyed are involved in monogamous unions while

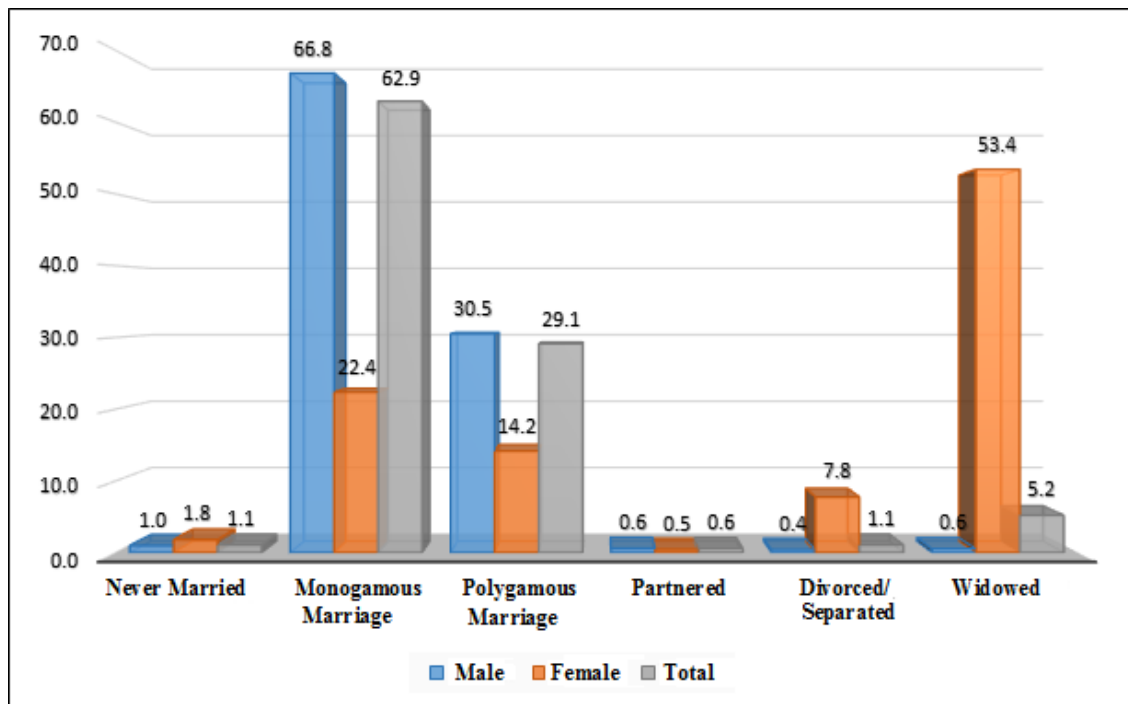
1% were never married. Three out of every 10 male Heads of Household in the study zone are involved in polygamous unions.

Table 3.6: Distribution of Heads of Households by Selected Characteristics and Sex

Characteristics HH Head	Total	Sex of the Head of Household	
		Male	Female
<u>Age</u>			
<25 years old	7.9	7.6	10.5
25-49 years old	55.6	57.1	40.6
50 and older	36.5	35.3	48.9
<u>Ethnic Group</u>			
Mossi	22.0	21.3	29.7
Fulfuldé/Peul	20.7	21.3	14.6
Gourmantché	11.6	12.3	4.6
Songhai/Sonraï	6.8	7.4	13.7
Tuareg	2.0	2.0	1.8
Bella	5.6	5.4	6.4
Other ethnic groups	1.6	1.6	1.4
Hausa	23.8	24.4	17.8
Djerma	5.1	4.7	10.1
<u>Main Activity</u>			
Agriculture	80.5	82.1	63.9
Livestock	5.6	5.8	3.2
Trade	4.2	4.0	6.4
N/A	2.0	1.2	11.0
<u>Other activities</u>	6.4	5.8	12.3
Unaccounted for	0.1	0.0	0.5
Artisanal Miner	1.3	1.1	2.7
Total Headcount	2,491	2,272	219

Overall, six in 10 heads of household are involved in monogamous unions, while 29.1% are in polygamous ones and 1.1% are single (never married). Widowed, divorced or separated females account for 5.2% of heads of household. It is exceedingly uncommon in the region to find households led by a partnered but non-married person. Again, see Figure 3.2 on the following page for more details regarding the marital status of Heads of Household by gender.

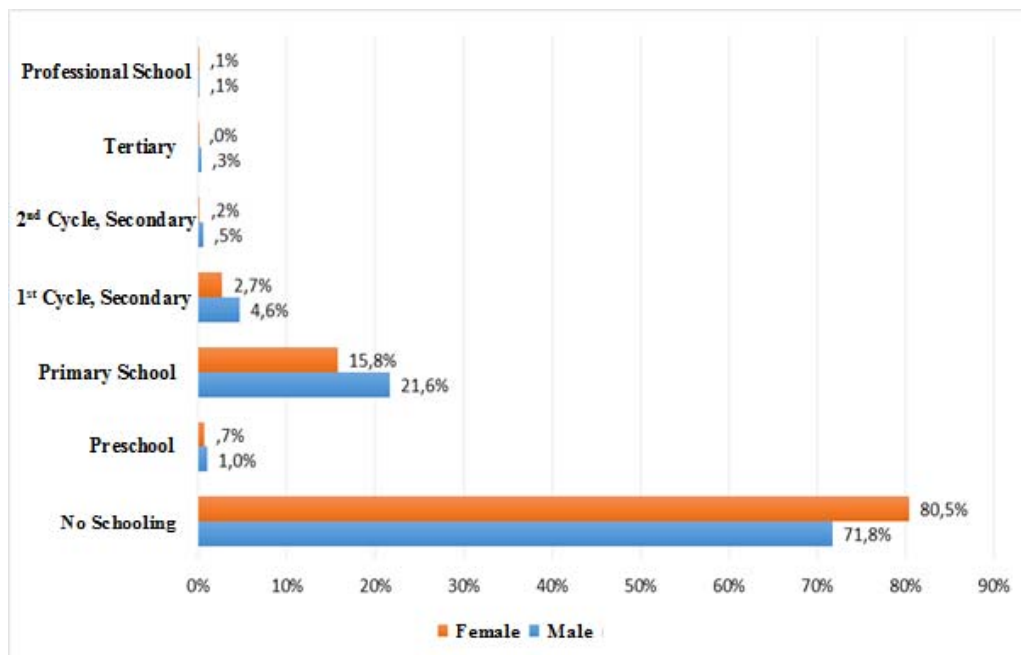
Figure 3.2: Heads of Household by Marital Status and Sex



3.2.3. Education Levels

Overall, 76.3% of individuals in the surveyed households never attended school. This rate is high for both males and females (see Figure 3.3).

Figure 3.3: Population's Educational Attainment by Sex



3.2.4. Highest Educational Attainment of Heads of Household

With reference to the education levels of Heads of Households, the baseline survey revealed that 85.6% of them never attended school, 9.2% attended primary education as their highest level, and 4.2% reached a level of secondary education. However, compared to men, women face a greater deficit in terms of education. Indeed, more than nine of 10 female Heads of Household have never been to school, compared to 85.1% of their male counterparts. Moreover, among all surveyed households in the RISE area, no female Head of Household had reached tertiary education, while 0.7% of male Heads of Household had.

3.2.5. Literacy by Language

A very large share of the population surveyed (92.9%) is not literate in the local language (See Table 3.7).

Table 3.7: Local Language Literacy

Local Language Literate	Headcount	Percentage (%)
Yes	1,057	7.1
No	13,892	92.9
Total	14,949	100.0

Regarding other languages, only French (10.1%) registered a higher rate than local languages. As Table 3.8 illustrates, English and Arabic are read only marginally spoken in the study region.

Table 3.8: Foreign Language Literacy

Foreign Language Literate	Headcount	Percentage (%)
French	1,516	10.1
English	229	1.5
Arabic	229	1.5
Other	16	0.1
None	12,947	86.7
Total	14,937	100

3.3 Home Features and Construction

3.3.1. Main Housing Characteristics

A housing room is understood as an enclosed space in a home which is finished and habitable all year round.

The survey results show that surveyed households have 2.8 rooms on average, with a minimum and a maximum in the RISE zone of 1 and 32 rooms, respectively. The size of homes varies according to the disaggregation factors outlined in Table 3.9.

Table 3.9: Number of Rooms and the Overcrowding Rate

	Number of Housing Rooms			Overcrowding Rate
	Min	Max	Average	
Country				
Burkina Faso	1	32	2.95	0.14
Niger	1	17	2.57	0.10
Whole Area	1	32	2.79	0.12
Stratum				
High	1	14	2.82	0.11
Low	1	32	2.77	0.13
Sex of the Head of Household				
Male	1	32	2.86	0.13
Female	1	11	2.06	0.00
Marital Status of Household Head				
Never got married	1	4	2.19	0.00
Married, monogamous	1	32	2.38	0.19
Married, polygamous	1	17	3.85	0.00
Cohabitation	1	5	2.00	0.00
Divorced/separated	1	7	2.04	0.00
Widow(er)	1	10	2.25	0.00

Space is critical to the growth and health of an individual. Close physical proximity between individuals in a household is therefore not conducive to development and maintaining cleanliness.

To measure this, the overload rate, i.e., the percentage of households with more than three people per room, was calculated. On average, this rate is very low (0.12%) for all households covered.

3.3.2. Building Materials for Dwelling Structures

Living in insecure housing may have adverse effects on the health and productive capacity of individuals living in RISE area households. One way to measure the precariousness of dwelling structures is to account for the type of materials used in household construction.

The survey data indicates that approximately three-quarters of households surveyed have walls built of clay or mud brick. 17% have walls built of straw, and a very small percentage are constructed with sustainable and good quality materials (3% used cement/concrete and 1% used baked bricks).

Table 3.10: Wall-Building Materials for Dwelling Structures

Wall-Building Material	% of All Household Walls
Cement	3.4
Fired Brick	1.1
Clay/Mud Brick	75.3
Wood/Bamboo	2.4
Stone	0
Sheet Metal	0
Straw	17.3
Other	0.4
Total	100.0

As far as roof-building materials go, Table 3.11 indicates that wood and earth (38.2%), straw (33.8%), and sheet metal (27.7%) are the most common forms of roofing in the RISE region. However, 93% of the sheet metal roofs are found in Burkina Faso, whereas wood/earth and straw roofs are more common in Niger.

Table 3.11: Roof-Building Materials for the Main Housing

Roof-Building Material	% of All Household Roofs
Sheet Metal	27.7
Cement	0.3
Straw or Thatch	33.8
Wood and Earth	38.2
Other	0

3.3.3. Main Housing Flooring Type

Dirt floors with no quality material such as cement or tiling as a cover exacerbate the spread of germs and disease. The survey results show that only a small number of households (14%) covered the floor of their dwelling with concrete/cement, and that nearly half of the households surveyed (about 49%) used clay as flooring. 35% used sand (see Table 3.12).

Table 3.12: Flooring Materials in Dwelling Structures

Flooring Material	% of All Household Floors
Dirt/Clay	49.3
Cow Dung	0.6
Concrete/Cement	14.4
Sand	35.3
Other	0.5

3.4 Drinking Water Supply

The importance of drinking water for the health and productivity of individuals is well established, and access to adequate supplies of clean water is of paramount importance to humans. The Household Questionnaire included questions regarding households' main source of water.

The survey results show that half of the surveyed households (50.4%) use boreholes/tube wells for their supply of drinking water, whereas only a small percentage use public or private taps, and fewer than 10 total households use bottled water as their main source of drinking water.

Table 3.13: Main Source of Households' Drinking Water Supply

Source of Drinking Water	% of All Households
Surface Water	1.4
Protected Well	3.9
Uncovered Well with Drains	13.4
Traditional Well	19.2
Borehole/Tube Well	50.4
Public Tap	8.9
Own Indoor Tap	1.4
Shared Outdoor Tap	1.4
Bottled Water	0.1

Reducing distances and waiting time for fetching water are factors which greatly facilitate access to water. To do this, it is important to estimate the time a household dedicates to fetching water. From a question on the Household Questionnaire, the

data indicates that, on average, households in the RISE zone spend 82 minutes per day to get the water they require. Water collection time in minutes are disaggregated by various factors in Table 3.14.

Table 3.14: Average Water Collection Time in Minutes

Household Characteristics	Average Water Collection Time (min)
<u>Country</u>	
Burkina Faso	111
Niger	42
Whole Area	82
<u>Stratum</u>	
High	78
Low	84
<u>Sex of the Head of Household</u>	
Male	84
Female	63
<u>Marital Status of Household Head</u>	
Never got married	50
Married, monogamous	80
Married, polygamous	90
Cohabitation	106
Divorced/separated	59
Widow(er)	67

3.5 Types of Toilets Used by Households

The vast majority of households surveyed (about 81%) go to the toilet in the open. Just 16% use slab-covered pit latrines, while less than 2% use other types of toilets.

3.6 Livestock Headcount

The most common animals kept as livestock in the RISE zone are cattle, sheep, goats and poultry. The average number of livestock per household in the RISE zone of Burkina Faso is notably higher than in Niger: households in Burkina Faso reported owning an average of six cattle, six sheep, and five goats, compared to one head of cattle, two sheep, and three goats in Niger. Table 3.15 lists livestock holdings on average, by country, and by High/Low strata, though at this baseline stage of the project we do not suggest that the difference across strata is due to the RISE interventions. Midline data will better reveal the effects of the interventions.

Table 3.15: Average Number of Livestock Owned by Households

	Together	Country		Stratum	
		Burkina Faso	Niger	Low	High
Bulls	4	6	1	4	2
Sheep	4	6	2	5	4
Goats	5	7	3	5	5
Donkeys	1	1	0	1	1
Horses	0	0	0	0	0
Pigs	0	0	0	0	0
Camels-dromedaries	0	0	0	0	0
Rabbits	0	0	0	0	0
Hens	6	8	3	7	5
Guinea fowls	2	3	1	2	2
Turkeys	0	0	0	0	0
Ducks	0	0	0	0	0
Pigeons	1	1	1	0	1

3.7 Farm Lands

Although the baseline survey revealed a range of different farm land types exploited by the surveyed households in Burkina and Niger in the RISE zone (see Table 3.16 below) including gardens, orchards, and off-season (irrigated) fields, rain-fed farms constitute a crushing majority (94.8%) of the lands. As noted in Table 3.17 below, taken together, off-season (irrigated) lands (2.4%), gardens (0.7%), hydro-agricultural development parcels (0.7%), and orchards (0.6%) comprise less than 5% of the lands worked by the households surveyed.

Table 3.16: Types of Farm Lands Worked by Surveyed Households in the RISE zone (count)

Type of farm lands	Burkina Faso			Niger			Overall Total
	High	Low	Total	High	Low	Total	
Rain-fed	1284	1984	3268	857	1212	2069	5,337
Off season (irrigated)	16	33	49	25	60	85	134
Orchard	6	12	18	3	13	16	34
Hydro-agricultural development	8	4	12	1	27	28	40
Garden	9	18	27	2	10	12	39
Rain-fed + off season	3	7	10	7		7	17
Rain-fed + off season + orchard	1	1	2	1		1	3
Orchard + off season		3	3	7	3	10	13
Orchard + rain-fed		2	2				2
Others		6	6				6
Undeclared		1	1		5	5	6
Overall Total	1,327	2,071	3,398	903	1,330	2,233	5,631

Table 3.17: Breakout of Farm Lands by Type (percentage)

Type of farm lands	Burkina Faso (%)			Niger (%)			Overall Total
	High	Low	Total	High	Low	Total	
Rain-fed	96.8	95.8	96.2	94.9	91.1	92.7	94.8%
Off season (irrigated)	1.2	1.6	1.4	2.8	4.5	3.8	2.4%
Orchard	0.5	0.6	0.5	0.3	1.0	0.7	0.6%
Hydro-agricultural development	0.6	0.2	0.4	0.1	2.0	1.3	0.7%
Garden	0.7	0.9	0.8	0.2	0.8	0.5	0.7%
Rain-fed + off season	0.2	0.3	0.3	0.8	0.0	0.3	0.3%
Rain-fed + off season + orchard	0.1	0.1	0.1	0.1	0.0	0.0	0.1%
Orchard + off season	0.0	0.1	0.1	0.8	0.2	0.5	0.2%
Orchard + rain-fed	0.0	0.1	0.1	0.0	0.0	0.0	0.0%
Others	0.0	0.3	0.2	0.0	0.0	0.0	0.1%
Undeclared	0.0	0.1	0.0	0.0	0.4	0.2	0.1%
Overall Total	100%	100%	100%	100%	100%	100%	100%

As shown in Table 3.18 below, approximately 55% of the rain-fed fields are between 1 and 3 ha in size, and 24% are smaller than a hectare.

Table 3.18: Size of Household Farm Lands in RISE Zone

Type of farm land	Burkina Faso			Niger			Overall Total
	High	Low	Total	High	Low	Total	
Rain-fed farm	96.8%	95.8%	96.2%	94.9%	91.1%	92.7%	94.8%
0-1ha	39.4	17.,5	26.1	27.7	16.7	21.2	24.2
1-3ha	49.5	57.4	54.3	56.9	54.4	55.4	54.8
3-5ha	8.9	17.2	14.0	11.1	18.5	15.4	14.5
5-10ha	1.,6	7.0	4.9	3.7	8.8	6.7	5.6
Plus de 10ha	0.6	0.8	0.7	0.6	1.7	1.3	0.9

Acquisition of farm lands in the RISE zone

Three quarters of household heads in the RISE zone indicated that they had acquired their land by inheritance with little difference noted between Burkina Faso (74.1%) and Niger (74.5%). The percentage of households borrowing, leasing, or sharecropping land were also very similar. The main differences revealed by Tables 3.19 and 3.20 below are the much larger percentage of Niger households that reported purchasing land (12%) compared to households in the RISE zone of Burkina (1.2%), and the percentage of Burkina households that reported acquiring land through gift or grant (9.5%) compared to 0.5% in Niger.

Table 3.19: Mode of Acquisition of Land in the RISE Zone (count)

Mode of acquisition	Burkina Faso			Niger			Grand Total
	High	Low	Total	High	Low	Total	
Inherited	932	1586	2518	624	1054	1678	4,196
Bought	10	32	42	164	105	269	311
Sharecropping basis	1	21	22	11	34	45	67
Use right (usufruct)	51	98	149	34	19	53	202
Borrowed	163	46	209	19	70	89	298
“Right of the axe”	63	42	105	13	7	20	125
Hydro-agricultural development		3	3		6	6	9
Leased	8	2	10	27	29	56	66
Gift, Grant	88	234	322	6	6	12	334
Undeclared	11	7	18	5		5	23
Overall Total	1,327	2,071	3,398	903	1,330	2,233	5,631

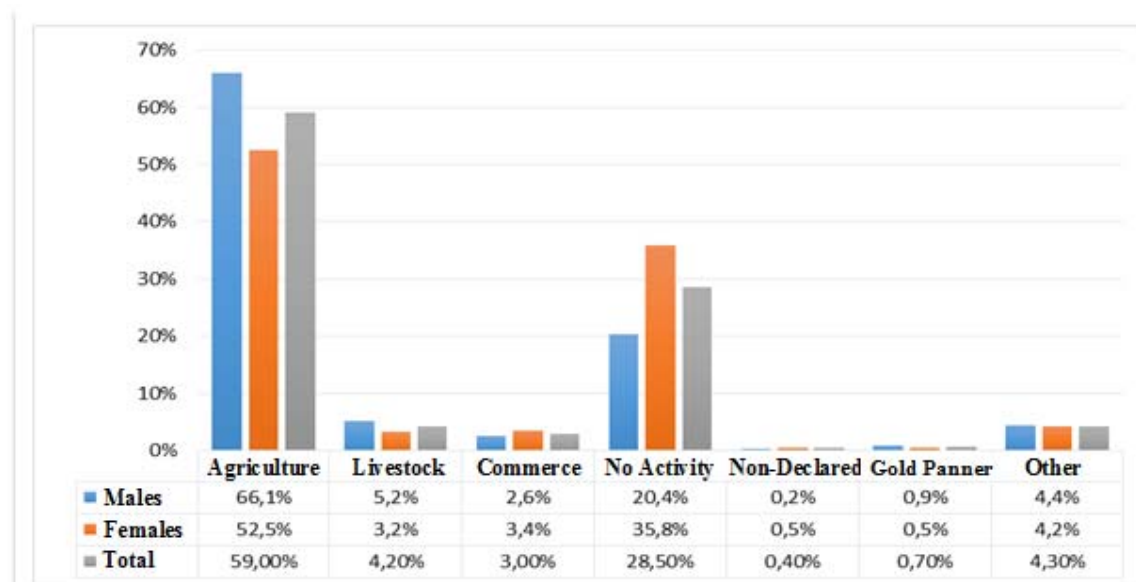
Table 3.20: Mode of acquisition of land in the RISE zone (percentage)

Mode of acquisition	Burkina Faso (%)			Niger (%)			Overall Total %
	High	Low	Total	High	Low	Total	
Inherited	70.2	76.6	74.1	69.1	79.3	75.2	74.5%
Bought	0.8	1.6	1.2	18,16	7.9	12.0	5.5
Sharecropping basis	0.1	1.0	0.7	1,22	2.6	2.0	1.2
Use right (usufruct)	3.8	4.7	4.4	3,77	1.4	2.4	3.6
Borrowed	12.3	2.2	6.2	2,10	5.3	4.0	5.3
“Right of the axe”	4.8	2.0	3.1	1,44	0.5	0.9	2.2
Hydro-agricultural development	0.0	0.1	0.1	0,00	0.5	0.3	0.2
Leased	0.6	0.1	0.3	2,99	2.2	2.5	1.2
Gift, Grant	6.6	11.3	9.5	0,66	0.5	0.5	5,9
Undeclared	0.8	0.3	0.5	0,55	0,00	0.2	0.4
Overall Total	100%	100%	100%	100%	100%	100%	100%

3.8 Livelihoods

We noted earlier that a vast majority of Heads of Households rely on agriculture as their primary activity. Among all individuals above the age of 12 in the surveyed households, 59% do so. The majority of both men (66.1%) and women (52.5%) are farmers in the RISE zone.

Figure 3.4: Structure of the Population Aged 12 and older by Main Activity



A small share of surveyed population cites other types of activities, such as livestock, trade, and artisanal mining as “main activities”. As noted below, however, in the

section on sources of household revenue, these secondary activities make a very important contribution to subsistence in the RISE zone.

Breakout of Main Activities by Age Groups

Figure 3.5 and Table 3.21 below disaggregate the main activities of RISE survey household members in both strata according to six age groups. Agriculture is the dominant occupation among all age groups between 19 and 65 years of age, averaging approximately 70% for groups between 28 and 65 years, and slightly less (62%) for the 19-27 year-old group.

Approximately half of household members in the 12-18 year old group are economically active, most of them in agriculture (40%). “Inactive” members of this age cohort include children enrolled in school. Not surprisingly, economic activity drops sharply in the group aged 66 and older with slightly less than 40 percent still engaged in some activity, mainly agriculture (about 25%) and some livestock raising. Artisanal mining is listed as a main activity of a small fraction of household members in all age groups except for those over 66.

Figure 3.5: Main Activities by Age Group

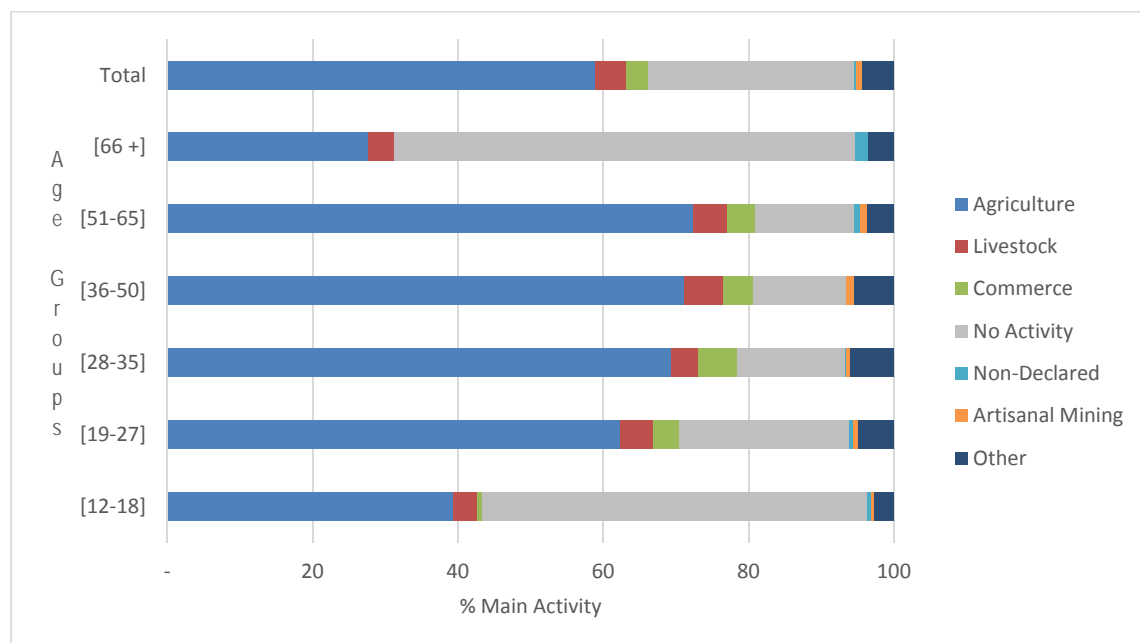


Table 3.21: Main Activities by Age Group

Main Activity	Age Groups						Total
	12-18 yrs.	19-27 yrs.	28-35 yrs.	36-50 yrs.	51-65 yrs.	66+ yrs.	
Agriculture	39.3	62.3	69.4	71.2	72.4	27.7	59.0%
Livestock	3.4	4.5	3.7	5.3	4.8	3.6	4.2%
Trade	0.7	3.6	5.3	4.1	3.3	0.0	3.1%
No Activity	52.9	23.5	14.8	12.8	13.8	63.4	28.3%
Non-declared	0.5	0.4	0.1	0.1	0.7	1.8	0.4%
Artisanal Mining	0.5	0.7	0.7	1.0	1.0	0.0	0.7%
Other	2.7	4.9	6.0	5.5	3.6	3.6	4.4%
Total	100%	100%	100%	100%	100%	100%	100%

Sources of household revenue

Households participating in the baseline survey in the RISE zone of Burkina Faso and Niger were asked to indicate the proportion of food/revenue that different subsistence activities contributed during the previous 12 months. Sources included agricultural, non-agricultural, and external (non-agricultural) sources including migration remittances, gifts, and inheritance. The results are summarized in the section below and detailed in Table 3.22.

Agricultural Sources

Agricultural sources are those dependent on climate, notably the production and sale of agricultural and animal products, services directly linked to agricultural and livestock activities, farm laborer, etc.

The survey results reveal that agricultural and livestock production constitute by far the most important sources of revenue for the RISE zone households. More than 70% of the households surveyed in Niger and in the High exposure stratum of Burkina Faso declared that agricultural production contributed more than 50% of their revenues in the previous 12 months. That corresponding figure for the Low exposure stratum of Burkina Faso was 50% of households.

Table 3.22 below indicates that in the RISE zone, animal production and sales contribute much more to household revenues in Burkina Faso than in Niger. In the High exposure stratum of Burkina Faso, more than 48% of households surveyed affirmed that this activity contributed between 10 and 30% of their revenues; 20% of the households responded that this activity contributed between 30 and 50% of their revenues. And 9% reported that the production and sale of animal products contributed more than 50% of their revenues. The corresponding amounts for the

Low exposure stratum of Burkina Faso were 33% (10-30% of revenues), 30,9% (30-50%) and 17% (>50%). In contrast, only about 3% of households in Niger's High exposure stratum reported that animal production and sales contributed more than 50% of revenues. This figure was even lower (1.4%) in the Low exposure stratum of Niger.

Non-agricultural Sources

Despite the predominance of agricultural activities in the sources of household revenues in the RISE zone, the survey results (see Table 3.22 below) confirm the importance of non-agricultural sources in their subsistence. The most important non-agricultural sources are small commerce/trade and artisanal mining (in Burkina Faso). More than 11% of households surveyed in Niger and in the High exposure stratum of Burkina Faso, for example, drew at least 30% of their revenues from trade in the 12 months preceding the survey. Artisanal mining constitutes a substantial revenue source in the RISE zone of Burkina Faso where 18.9% of the households surveyed in the Low exposure stratum and 14.2% in the High exposure stratum reported that this activity contributed between 10 and 50% of their revenue in the 12 months preceding the survey. On the other hand, this activity makes no significant contribution to revenues among households surveyed in the RISE zone of Niger.

The percentage of households surveyed that report that they drew at least 30% of their revenues from technical and professional activities (carpentry, masonry, bicycle or motorcycle repair, pump repair, tailoring, etc.) varied from a low of 2% (High exposure stratum of Burkina Faso) to a high of 5.4% (High exposure stratum of Niger).

External Non Agricultural Sources

The RISE baseline survey reveals that external non-agricultural sources consist mainly of migration in RISE zone of both Niger and Burkina Faso. The contribution of migration to household revenues, however, is significantly greater in Niger than in Burkina Faso. In Niger, 32.3% of households in the Low exposure stratum and 34.9% of households in the High exposure stratum reported that migration contributed between 10 and 50% of their revenues in the 12 months preceding the survey. In Niger, the percentage of households drawing more than 50% of their revenues from migration was 9% in the Low exposure stratum and 10.1 in the High exposure stratum. The corresponding figures among Burkina Faso households surveyed were 2% (Low exposure) and 0.4% (High exposure).

Table 3.22: Contribution of agricultural and non-agricultural activities to revenues of surveyed households

Activities	Burkina Faso										Niger									
	High					Low					High					Low				
	R0	R10	R20	R30	R50	R0	R10	R20	R30	R50	R0	R10	R20	R30	R50	R0	R10	R20	R30	R50
Agricultural Sources	%					%					%					%				
Agricultural production and sales	5.40	4.00	7.00	11.00	72.60	10.06	5.95	9.24	24.64	50.10	3.53	1.65	5.65	18.12	71.06	5.56	1.01	2.70	18.72	72.01
Animal production and sales	22.00	26.40	21.60	20.20	9.80	19.10	16.32	16.63	30.90	17.04	53.88	10.35	14.35	18.35	3.06	75.72	6.58	6.24	10.12	1.35
Agricultural laborer	98.00	1.40	0.60	0.00	0.00	98.87	0.41	0.21	0.21	0.31	95.29	2.35	1.88	0.47	0.00	94.10	3.88	1.01	0.84	0.17
Production and sale of seedlings, seeds, and forage	99.80	0.00	0.20	0.00	0.00	99.79	0.10	0.10	0.00	0.00	100.00	0.00	0.00	0.00	0.00	97.81	1.18	0.34	0.67	0.00
Production and sale of firewood, charcoal, poles, etc.	98.00	0.40	0.40	0.40	0.80	99.49	0.00	0.31	0.00	0.21	99.06	0.47	0.24	0.00	0.24	95.28	1.01	1.52	1.52	0.67
Sale of wild products	99.60	0.40	0.00	0.00	0.00	98.67	1.13	0.00	0.21	0.00	98.59	0.71	0.24	0.00	0.47	98.65	0.67	0.34	0.17	0.17
Employed in enterprise that processes and sells agricultural and animal products	99.80	0.20	0.00	0.00	0.00	99.28	0.21	0.21	0.00	0.31	99.76	0.00	0.00	0.00	0.24	99.83	0.00	0.00	0.17	0.00
Provider of private agricultural services (para-veterinary auxiliary, ag extension agent, etc.)	99.80	0.20	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00
Other	98.80	0.60	0.00	0.10	0.50	99.18	0.10	0.21	0.10	0.41	99.06	0.24	0.12	0.47	0.12	96.80	0.93	0.34	0.93	1.01

(See continuation of table on next page)

Legend: Contribution to total household revenues

R0: 0 - 10%

R10: 10 - 20%

R20: 20 - 30%

R30: 30 - 50%

R50: more than 50% of total household revenues

Table 3.22 (continued): Contribution of agricultural and non-agricultural activities to revenues of surveyed households

Activities	Burkina Faso										Niger									
	High					Low					High					Low				
	R0	R10	R20	R30	R50	R0	R10	R20	R30	R50	R0	R10	R20	R30	R50	R0	R10	R20	R30	R50
Non-Agricultural Sources	%					%					%					%				
Small commerce	72.80	10.40	5.00	7.20	4.60	82.14	5.54	5.03	3.39	3.90	73.18	6.82	8.94	7.06	4.00	81.11	3.71	4.05	6.24	4.89
Non-agricultural services	96.60	0.60	0.80	0.80	1.20	97.43	1.03	0.51	0.21	0.82	98.35	0.24	0.71	0.71	0.00	97.47	0.51	1.01	0.34	0.67
Technical and trade activities (carpenter, mason, bicycle or motorcycle repair, mechanic, pump repair technician, tailor, etc.)	95.80	1.80	1.40	0.60	0.40	92.61	1.95	1.13	2.05	2.26	92.00	1.41	1.18	2.82	2.59	96.12	0.84	0.34	1.52	1.18
Artisanal mining	84.40	7.00	4.00	3.20	1.40	74.95	6.98	5.65	6.26	6.16	99.76	0.00	0.00	0.00	0.24	95.45	1.01	0.17	2.36	1.01
Non-agricultural labor (factory, enterprise, mining company, etc.)	99.20	0.40	0.00	0.40	0.00	98.25	0.21	0.10	0.62	0.82	99.29	0.00	0.00	0.24	0.47	99.33	0.17	0.34	0.17	0.00
Household work	99.60	0.00	0.20	0.20	0.00	99.79	0.21	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	99.83	0.00	0.00	0.17	0.00
Artisan (pottery, weaving, wood sculpturing, etc.)	98.00	1.20	0.40	0.00	0.40	95.17	2.36	0.92	1.03	0.51	99.06	0.00	0.47	0.00	0.47	97.98	0.00	0.34	1.52	0.17
Transportation, materials handling	99.20	0.20	0.20	0.20	0.20	99.18	0.21	0.31	0.10	0.21	98.35	0.24	0.47	0.47	0.47	98.48	0.84	0.17	0.17	0.34
Other	98.80	0.20	0.20	0.30	0.50	97.74	0.51	0.26	0.62	0.87	97.29	0.47	0.82	0.71	0.71	97.72	0.42	0.42	0.42	1.01
External Non-Agricultural Sources	%					%					%					%				
Migration	91.60	4.20	2.00	1.80	0.40	91.89	2.87	2.36	1.23	1.64	54.82	6.35	12.47	16.24	10.12	59.02	14.33	7.76	9.95	8.94
Gifts/Inheritance	94.20	2.40	1.20	1.40	0.80	93.63	2.16	2.05	0.62	1.54	98.82	0.24	0.24	0.47	0.24	97.81	1.01	0.00	0.67	0.51
Other	100.00	0.00	0.00	0.00	0.00	99.83	0.00	0.03	0.07	0.07	99.29	0.00	0.00	0.47	0.24	99.38	0.11	0.06	0.17	0.28

Legend

R0: 0 - 10%

R10: 10 - 20%

R20: 20 - 30%

R30: 30 - 50%

R50: more than 50% of total household revenues

4. HOUSEHOLD POVERTY

This chapter describes the indicators that capture the degree of household poverty and economic instability in the RISE zone. Given the prevalence of subsistence livelihoods and informal sector employment in the region, measures based on household earnings would not be appropriate. Instead, the indicators described here are based on household daily consumption expenditures and on the assets that households possess. Changes in expenditure patterns and in asset ownership over time constitute a reasonable means of assessing whether households are achieving greater financial stability. The indicators reported here are: breadth of extreme poverty, depth of extreme poverty, asset ownership, and average value of assets owned.

4.1 Prevalence of Poverty in the RISE Zone (Indicator 4)

Prevalence of Poverty measures the proportion of individuals in the study zone living on less than \$1.25 per day. As noted, the calculation is based on consumption expenditures rather than reported income.

4.1.1. Methodology Note

Household consumption expenditure is a welfare indicator. It includes food expenditures, non-food expenditures, and durable goods expenditures, excluding investments and using imputed rent. Food expenditures include the purchase of food consumed during the reference period of seven (7) days, the value of food consumed from the household's own production, and any in-kind food donations and gifts received during the reference period. Values were calculated based on unit price and number of units consumed (see the Analysis Plan for details).

Expenditures on non-food items (clothing, furniture, etc.) are based on longer periods of reference, either three months or one year. In all cases, the expenditures are divided by the number of days in the reference period in order to determine a daily expenditure amount.

Household rent was not collected at the time of the survey. In order to determine an appropriate value for lodging expenditures, auxiliary information from the 2009-2010 Integrated Survey on Household Living Conditions (EICVM) conducted by INSD was used to estimate imputed rent. Survey results establish the average daily imputed rent at CFAF158 in the three survey areas in Burkina Faso. This average value was attributed to all households in the sample, both in Burkina Faso and Niger. The imputation relies on the assumption that lodging prices across the survey area are comparable.

Because the measure for prevalence of poverty is a per capita measure (rather than per household), daily household expenditures must be divided by the number of individuals in the household.

Additionally, to determine the poverty line threshold of \$1.25/day in Local Currency Units (LCUs), we convert US dollars to LCUs using the World Bank's Purchasing Power Parity (PPP) rates.⁴ Those figures are:

- a. For Burkina Faso, 1USD = 223.10 FCFA
- b. For Niger, 1USD = 229.23 FCFA

We also adjust that figure for inflation since 2010 using the Consumer Price Index (CPI) for the month closest to the data collection, with average monthly inflation in 2010 as the base factor (2010 CPI = 100). Those figures are obtained through the International Financial Statistics from the International Monetary Fund (IMF).⁵ Note that beginning in 2015, the IMF began using 2010 inflation as the base factor, instead of 2005.

- a. For Burkina Faso, $CPI_{\text{March 2015}} = 105.636/100$
- b. For Niger, $CPI_{\text{April 2015}} = 103.657/100$

The threshold is thus 1.25 multiplied by the LCUs adjusted for 2010 PPP and inflation.

- a. For Burkina Faso: $1.25 * 223.10 * 105.636/100 = 294.592$ FCFA
- b. For Niger: $1.25 * 229.23 * 103.657/100 = 297.016$ FCFA

The prevalence of poverty in the RISE zone is thus the proportion of individuals whose daily consumption expenditures including food, non-food items, and imputed rent are valued at less than that threshold in FCFA currency.

4.1.2. Findings: Prevalence of Poverty

More than one-third of individuals surveyed in the study zone live in extreme poverty: in total, 36.1 percent (weighted) live on less than US\$1.25 a day (34.5% in the unweighted sample). . This figure is somewhat lower than expected, for reasons noted below.

As shown in Table 4.1, the prevalence of poverty is 38.5% in the High stratum, where REGIS and Food for Peace projects are planned or recently underway, and 32.1% in

⁴ Data available at <http://data.worldbank.org/indicator/PA.NUS.PRVT.PP>.

⁵ Data available at <http://elibrary-data.imf.org/DataReport.aspx?c=1449311&d=33061&e=169393>.

the Low stratum. This difference of six percentage points is not statistically significant given a p-value of 0.204 from an equality test. The difference is likely due to idiosyncratic reasons, but we note it now so that results drawn from the midline evaluation can be based on differential baseline figures from the High and Low exposure zones.

Table 4.1 : Prevalence of Poverty by Stratum (unweighted)

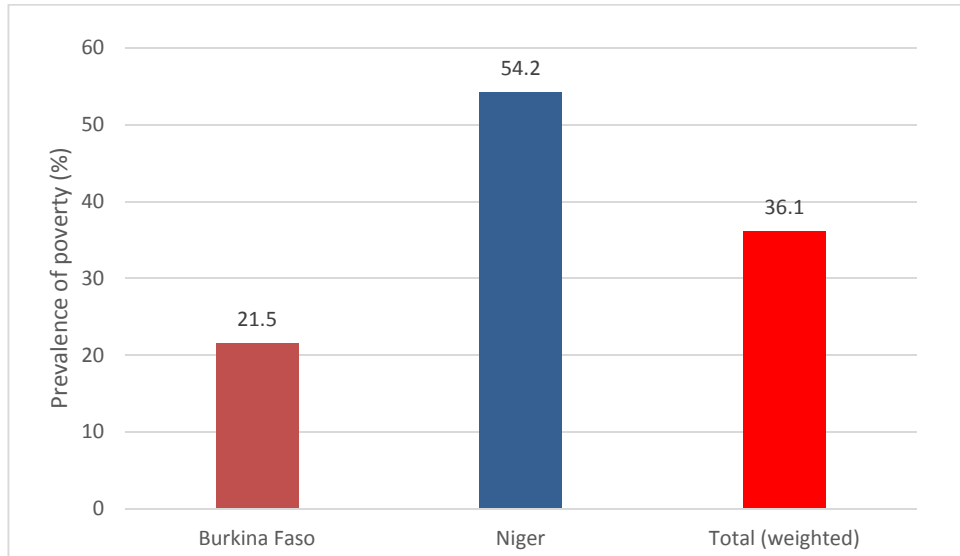
Stratum	Estimate	Linearized Std. Err.	[95% Conf. Interval]	
			Lower Bound	Upper Bound
HIGH	38.5%	0.034	31.7%	45.2%
LOW	32.1%	0.036	24.9%	39.3%
[High]–[Low]	6.4% ^a	0.050		

a : t=1.28 and p-value=0.204

Though the RISE zone of intervention spans areas of Burkina Faso and Niger and the priority lies in differences across High and Low exposure zones (rather than across countries), we note a significant difference in prevalence of poverty across the Burkina Faso and Niger locations. As Figure 4.1 indicates, over half (54.2%) of *Nigeriens* in the study live in extreme poverty, whereas 21.5% of surveyed individuals in Burkina Faso live below the \$1.25/day threshold. A closer examination of the data indicates that households in Burkina Faso tend to have higher relative wealth as a result of greater livestock investments, for which there may be cultural or geographic differences across the border. In fact, in comparisons with external national-level data, we find that the figure reported in the RISE zone is in keeping with expectations for Niger but is quite low in Burkina Faso: the United Nations Millennium Development Goals Indicators report the most recent rates for prevalence of poverty at 40.8 percent in Niger and 44.5 percent in Burkina Faso.⁶ Because the data were collected in the same manner across the rise zone, it is likely that the differences stems from local idiosyncrasies in wealth in the RISE area of Burkina Faso rather than in flaws in the data collection process, though that cannot be ruled out entirely. Subsequent rounds of data collection will provide important insight on the matter.

⁶ <http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=580>. Niger data from 2011; Burkina Faso data from 2009. The World Bank uses a threshold of \$1.90/day, so their figures are not comparable.

Figure 4.1: Prevalence of Poverty by Country (%) (RISE Zone)



The data also indicates that women-headed households are relatively poorer than those headed by men. As shown in Table 4.2, whereas 34.0% of households headed by a male fall below the extreme poverty threshold (aggregating the number of individuals therein), 41.5% of households headed by females fall below the threshold. Whereas there is no difference between the proportions of males and females more generally who fall below the poverty line—both do so at a rate of 34.5%--the sex of the Head of Household does seem to make a difference in terms of household level poverty.

Table 4.2: Poverty Prevalence Rate by Sex of the Head of Household

Sex of HH Head	Poverty		Total
	Non poor	Poor	
Male	66.0	34.0	100
Female	58.5	41.5	100
Together	65.5	34.5	100

Finally, we note that households comprised of single people who never married and of divorced/separated heads of households are more likely to fall below the poverty threshold: 43.1% and 43.0% of these households, respectively, live on less than \$1.25/day, compared to 32.8% of married, monogamous heads of households. See Table 4.3.

Table 4.3: Prevalence of Poverty by Marital Status of the Head of Household

Marital Status of HHH	Poverty		
	Non poor	Poor	Total
Never got married	56.9	43.1	100
Married, monogamous	67.2	32.8	100
Married, polygamous	63.4	36.6	100
Cohabitation	100.0	-	100
Divorced/separated	57.0	43.0	100
Widow(er)	65.9	34.1	100
Total	65.5	34.5	100

4.2 Depth of Poverty in the RISE Zone (Indicator 1)

The depth of poverty indicator measures the degree to which households living in extreme poverty are below that poverty threshold. This gives an indication of how poor the poorest households are. It may also serve as a guide for governments and aid organizations in determining where to devote resources. For example, if many individuals fall below the poverty threshold but only by a small amount, broad-based programs that reach a wider proportion of the population may constitute a more effective use of resources. Conversely, if a portion of the population falls deeply below the poverty threshold, governments and aid organizations may determine that efforts targeted at ensuring the survival of those extremely poor households constitute a better use of resources.

4.2.1. Methodology Note

The calculation of depth of poverty is based on the prevalence of poverty indicator. Once the proportion of individuals living on less than \$1.25/day is determined, the depth of poverty is measured as the degree to which those poorest individuals fall below the threshold. For example, an individual living on \$1.00/day would be considered to have a depth of poverty of 0.80, which is the person's daily consumption expenditures (\$1.00) divided by the threshold (\$1.25). The depth of poverty for each individual is then averaged across the study zone. Individuals above the threshold of \$1.25/day are counted as having a depth of poverty of zero.

4.2.2. Findings: Depth of Poverty

The depth of poverty is 12.4% (weighted) in the RISE area as a whole, with respect to the population surveyed. In other words, the poor are on average 12.4% below the poverty line of US\$1.25/day. The unweighted depth of poverty is 12.5%.

There is no notable difference in depth of poverty across the High and Low exposure zones. As Table 4.4 indicates, the depth of poverty is estimated at 12.2% in the High stratum and 12.7% in the Low stratum, with a p-value of 0.851 on the difference. These figures will serve as the baseline for difference-in-differences calculations after the midline data collection.

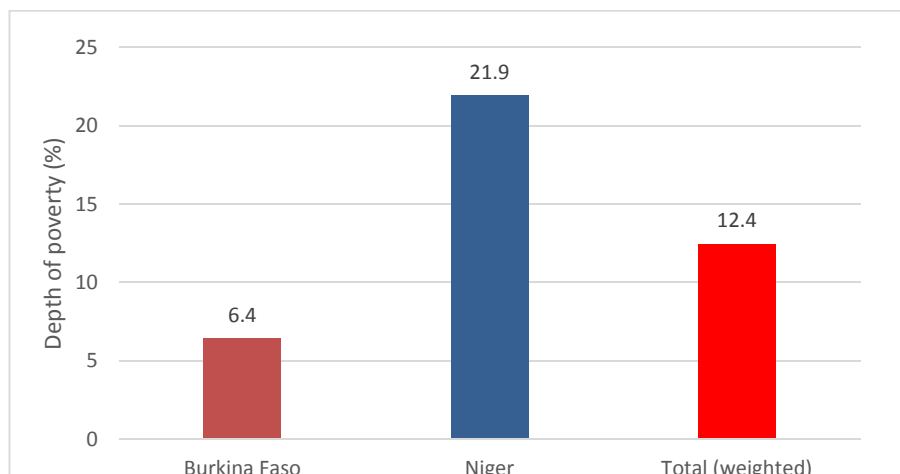
Table 4.4: Depth of Poverty by Stratum (unweighted)

Stratum	Estimate Depth of Poverty	Linearized Std. Err.	[95% Conf. Interval]	
HIGH	12.2%	0.014	9.5%	15.0%
LOW	12.7%	0.022	8.4%	17.0%
[High]–[Low]	-0.5 ^a	0.026		

a: $t = -0.19$ and $p\text{-value} = 0.851$

In keeping with the findings on prevalence of poverty, we again notice a significant difference in depth of poverty across the research sites in Burkina Faso and Niger: the depth of poverty in Niger is approximately 22%, whereas in Burkina Faso the figure is only 6.4% (see Figure 4.2). While this difference is somewhat perplexing given the similarity in livelihood activities in the region, we again stress the apparent cross-border difference in livestock investments which seem to have kept more households in Burkina Faso from deep poverty. We also stress that the effectiveness of the RISE interventions will be based on difference-in-differences calculations across the High and Low exposure zones, which exist in both countries, so we anticipate that seeing intervention effects regardless of these cross-border differences. Nevertheless, the Burkina Faso-Niger differences in poverty levels merit close attention over the course of the RISE program.

Figure 4.2 : Depth of Poverty by Country (RISE Zone)



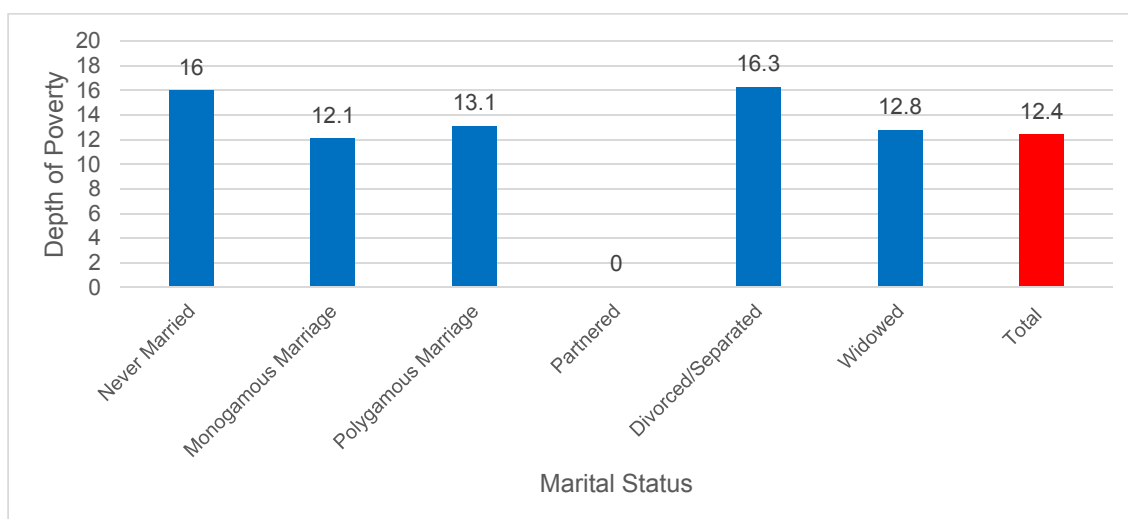
Poverty is deeper among women-headed households than among those headed by men. In other words, not only are individuals of women-headed households more likely to be extremely poor, but they are also further away from the extreme poverty line than are those living in male-headed households. See Table 4.5. Again, there is no notable difference in depth of poverty across male and female household heads in general, but we do find that the sex of the head of household plays a role in the household's depth of poverty.

Table 4.5: Depth of Poverty by Sex of the Head of Household (%)

Sex of HHH	Depth of Poverty
Male	12.3
Female	16.5
Together	12.5

Finally, we again note that depth of poverty is greater among households with a divorced/separated head of household and where heads of households are single or never married. The depth of poverty for these households is approximately 16%, whereas other households face a depth of poverty of roughly 12.5% (see Figure 4.3).

Figure 4.3 : Poverty Depth Structure by Marital Status of the Head of Household



4.3 Summary of the Prevalence and Depth of Poverty

To summarize the findings related to daily consumption expenditures, Table 4.6 indicates the prevalence and depth of poverty across both the High and Low exposure zones and the two country settings (since substantive differences exist in this regard). The table also reports average daily expenditures on food and non-food items across these same strata. Together, the findings suggest somewhat surprising outcomes from the Burkina Faso study area, but otherwise a level of extreme poverty consistent with the need for robust interventions.

Table 4.6: Expenditures and Poverty

Indicator	RISE Zone			Intervention Stratum	
	Together	Burkina Faso	Niger	Low	High
Prevalence of Poverty (%)	36.1*	21.5	54.2	32.1	38.5
Depth of Poverty	12.4*	6.4	21.9	12.2	12.7
Average Per Capita Daily Expenditures (FCFA)					
Together	501.9	596.9	357.7	510.9	486.9
Food	192.3	209.1	166.8	197.7	183.2
Non-food	309.7	387.8	190.9	313.2	303.7

* Weighted

4.4 Asset Ownership in RISE Zone Households (Indicator 3b)

Asset Ownership measures the number of assets and items in the household's possession. The rationale behind this indicator is that economic stability is associated with the purchase of additional assets, so household's whose stability improves over time should possess increasing numbers of assets.

4.4.1. Methodology Note

The indicator measures the possession of assets related to consumption, production, and livestock. The value is taken at the household level. Because Indicator 3a focuses on the average value of such assets, here we focus on the accumulation of assets themselves. With the implementation of High and Low exposure programs and subsequent data collection, the indicator will allow us to track increases in the economic well-being of program beneficiaries through their acquisition of new assets.

The approach we employ here includes consumptive assets, productive assets, and Total Livestock Units (TLUs). It does not include land, nor does it include the agricultural output from production. The indicator focuses on the durable (and livestock) assets that households possess.

4.4.2. Findings: Asset Ownership

On average, families in the RISE zone own just over 50 assets (51.14 weighted and 52.6 unweighted). This figure includes consumptive assets such as furniture, jewelry, and radios; productive assets such as hoes, tractors, and watering cans; and livestock (large and small). As Table 4.7 indicates, we do not find an important difference at this baseline stage across the High and Low exposure zones.

Table 4.7: Number of Assets Possessed (unweighted)

Stratum	Number of Assets	Linearized Std. Error	[95% Conf. Interval]	
			Lower Bound	Higher Bound
HIGH	48.96	3.33	42.35	55.57
LOW	54.67	3.91	46.89	62.44

4.5. Average Value of Household Assets (Indicator 3a)

Average value of household assets is an important indication of the economic wellbeing of households in the study region. Whereas the number of household assets is valuable in ultimately measuring the accumulation of new goods, the average value measure indicates whether households are choosing to purchase goods of greater or lesser quality.

4.5.1. Methodology Note

This measure captures the value of Consumptive, Productive, and Livestock assets in each household's possession, and averages the values across all households. The indicator can be reported in either LCU, in this case FCFA, or in US dollars.

A challenge arises in the calculation of average asset value at the household level; in short, we are unable to measure the value of assets in each household's possession with precision. For the consumptive and productive assets, the survey questionnaire provides data on the number of items the household owns currently, the number it possessed one year ago, the number it possessed two years ago, whether or not one of the items was purchased during the last twelve months, and how much the household paid for all of those items purchased in the last twelve months. However, because we do not have information on how many of the items were purchased during the last twelve months, we cannot determine the precise average cost of the recently purchased items. We also do not have a baseline from which to assign monetary values to older assets, and we have no other data on their cost or how many were lost. The key shortcoming is that we do not have a precise way of determining the number of recently purchased items, so we are unable to determine average value for those items. This inhibits us from assigning values to goods purchased earlier.

As an alternative, we simply add the total amounts spent on items during the last 12 months in each household. Thus, the value of assets per household includes only items purchased during the last 12 months, along with the value of livestock, for which we do have quantities currently owned and average price.

4.5.2. Findings: Average Value of Household Assets

The average value of household assets across all surveyed households is approximately 734,023 FCFA (weighted) and 765,500 FCFA (unweighted). Some difference is apparent across the High and Low exposure zones, which may be attributed to the random assignment of villages with extensive livestock raising to the Low exposure stratum. Because there are no systematic explanations for the difference across High and Low exposure zones (due to the process of random assignment), we stress the importance of waiting for midline results before drawing conclusions about the effectiveness of RISE intervention programs. Table 4.8 presents the results by exposure zone.

Table 4.8: Average Value of Household Assets (unweighted)

Stratum	Asset Value (FCFA)	Linearized Std. Error	[95% Conf. Interval]	
			Lower Bound	Higher Bound
HIGH	673,712	88,183.11	498,738	848,686
LOW	831,727	71,769.59	689,321	974,134

5. HUNGER AND MALNUTRITION

This chapter describes findings for a number of indicators related to the prevalence of hunger and malnutrition in the RISE study zone. Efforts to ameliorate nutritional shortcomings constitute a principal element of building resilience, so progress in terms of specific hunger-related measures can be taken as direct evidence of the effectiveness of the RISE interventions, particularly as GAM rates have been identified as a top-line indicator for the RISE program. As the data show, with one or two exceptions, there is much room for improvement in the RISE zone, given excessive baseline levels of hunger and malnutrition.

5.1 Moderate and Severe Hunger (Indicator 2)

More than 1 in 10 households are affected by moderate or acute hunger in both Burkina Faso and in Niger. In fact, while still high, this figure is lower than findings from other studies in neighboring countries. Furthermore, Low stratum households appear to suffer more from acute hunger than High stratum ones. The quantitative baseline study conducted by SAREL is not equipped to determine whether that difference is a function of RISE interventions already in place in the High exposure zones or if it is due to idiosyncratic differences in High and Low exposure villages. Qualitative studies and subsequent rounds of quantitative data collection will shed more light on that issue.

5.1.1 Methodology Note

Three questions from the Household Hunger Scale (HHS) help capture the degree of household hunger. Respondents were asked to indicate the frequency of three distinct events potentially experienced by household members over the past four weeks. The wording of the three events is as follows:

- In the past four weeks, was there ever no food to eat (of any kind) in your household because of lack of resources to get food?
- In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?
- In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?

The three questions are used to construct a score between 0 and 6. Households scoring 2 or 3 on the HHS are considered to suffer from moderate hunger and those with scores between 4 and 6 suffer from acute hunger.

5.1.2 Findings: Prevalence of Hunger in the RISE Area

Out of a total of 2,488 surveyed households that provided sufficient answers in the analysis of hunger, 341 scored greater than 2 on the Household Hunger Scale (HHS). In terms of share, 13.7% of (unweighted) households suffer from moderate to acute hunger. In weighted terms, 11.9% are reported to suffer from moderate or acute hunger: 10.1% are classified in a state of moderate hunger, while 1.8% face acute hunger.

5.1.3 Prevalence of Hunger in RISE Zone of Burkina Faso and Niger

There are no notable differences across the two countries in the RISE study zone in terms of general hunger. The prevalence of moderate or acute hunger is 13.3% in the Burkina RISE area and 14.3% in Niger. The prevalence of moderate hunger, specifically, is 12.1% in Burkina Faso and 9.7% in Niger. This difference is not statistically significant (see Table 5.1). Yet, as the table indicates, the prevalence of acute hunger is lower in Burkina Faso (1.2%) than in Niger (4.6%).

Table 5.1: Prevalence of Household Hunger in RISE Zone of Burkina Faso and Niger (unweighted)

Country	No Hunger		Moderate Hunger		Acute Hunger		Total	
	Count	%	Count	%	Count	%	Count	%
Burkina Faso	1,253	86.7	175	12.1	17	1.2*	1,445	100
Niger	888	85.6	101	9.7	48	4.6*	1,037	100
Together	2,141	86.3	276	11.1	65	2.6	2,482	100

**The difference is significant at the 5% threshold*

5.1.4 Prevalence of Hunger by Stratum

Table 5.2 shows the difference across High and Low exposure zones. As the table indicates, 12.7% of Low stratum households suffer from moderate hunger, versus 8.5% of households in the High stratum. Tests of equality indicate that this difference of more than four percentage points, or approximately 50 percent, is statistically significant. A notable difference is also apparent in terms of acute hunger. Low stratum households appear to suffer relatively more from acute hunger (3.8%) than those in the High stratum (0.7%).

Table 5.2: Prevalence of Hunger by Stratum (unweighted)

Stratum	Estimate (%)	Linearized Std. Err.	95% Conf. Interval	
Moderate Hunger				
High	8.5*	1.4	5.8	11.2
Low	12.7*	1.6	9.5	15.8
Acute Hunger				
High	0.7*	0.2	0.2	1.1
Low	3.8*	1.0	1.9	5.7

*The difference is significant at the 5% threshold

Reduced hunger in the High exposure communities is precisely what we would hope to see: those villages receive support from the REGIS-ER and FFP projects and should thus show evidence of improvement in terms of hunger and malnutrition. At this baseline stage, however, we cannot state with confidence that the difference across High and Low strata is a function of the programs or simply of idiosyncratic differences.

5.1.5 Prevalence of Hunger by Sex of the Head of Household

As Table 5.3 shows, the prevalence of moderate to acute hunger is significantly higher among women-headed households (22.4%) than among households headed by men (12.9%). There is no apparent difference between male- and female-headed households in terms of acute hunger, but female-headed households are significantly more susceptible to moderate hunger, compared to their male-headed counterparts.

Table 5.3: Prevalence of Household Hunger by Sex of the Head of Household (unweighted)

Sex of HHH	No Hunger		Moderate Hunger		Severe Hunger	
	Count	%	Count	%	Count	%
Male	1,971	87.1	237	10.5*	55	2.4
Female	170	77.6	39	17.8*	10	4.6
Together	2,141	86.3	276	11.1	65	2.6

*The difference is significant at the 5% threshold

5.1.6 Hunger by Marital Status of the Head of Household

In keeping with the findings regarding poverty, we also find that households headed by divorced or separated people tend to suffer more from hunger. According to Table 5.4, over one-third (36.0%) of households headed by divorced or separated people suffer from moderate to acute hunger. This is far above the study-wide average of approximately 10%. Widow/widower-headed households rank second with an 18.5% prevalence of moderate or acute hunger.

Table 5.4: Hunger by Marital Status of the Head of Household

Marital Status of HHH	No Hunger		Moderate Hunger		Severe Hunger	
	Count	%	Count	%	Count	%
Never got married	25	92.6	2	7.4	0	0.0
Married, monogamous	1332	85.3	183	11.7	46	2.9
Married, polygamous	647	89.4	63	8.7	14	1.9
Cohabitation	15	100.0	0	0.0	0	0.0
Divorced/separated	16	64.0	7	28.0	2	8.0
Widow(er)	106	81.5	21	16.2	3	2.3
Together	2141	86.3	276	11.1	65	2.6

5.1.7 Links between Hunger and Poverty

If a relationship exists between hunger and poverty, household hunger and malnutrition may be combatted both directly, through food-related measures, and indirectly (by reducing poverty). The data from the SAREL baseline study indicates that such a relationship does exist. As Table 5.5 indicates, 19.6% of poor households suffer from moderate or acute hunger, compared to just 11.4% of non-poor households. Disaggregating between moderate and acute hunger, poor households are significantly more likely to suffer from both. Thus, unsurprisingly, poverty and hunger go hand in hand. A positive implication from this finding is that hunger and malnutrition may be addressed in multiple ways – including through poverty reduction interventions.

Table 5.5: Connection between Household Poverty and Hunger

Poverty Status	No Hunger		Moderate Hunger		Severe Hunger		Moderate or Severe Hunger	
	Count	%	Count	%	Count	%	Count	%
Non poor	1,579	88.6	180	10.1*	24	1.3*	204	11.4*
Poor	562	80.4	96	13.7*	41	5.9*	137	19.6*
Together	2,141	86.3	276	11.1	65	2.6	341	13.7

*The difference is significant at the 5% threshold

5.1.8 Poverty, Hunger and Sex of the Head of Household

Among women-headed households, poverty does not necessarily mean hunger. Table 5.6 indicates that, among female-headed households, little difference exists in the proportion of poor and non-poor households suffering from moderate hunger. However, acute hunger is significantly more likely to affect poor female-headed households compared to non-poor households (8.3% vs. 2.7%). The same is true of male-headed households: poverty—living below the extreme poverty threshold outlined above—is a strong predictor of acute hunger. Differences in exposure to moderate and severe hunger based on poverty, as well as the sex of the head of household, constitute an important qualification of the overall assessment that poverty and hunger are related in the RISE study zone.

Table 5.6: Poverty and Hunger by Sex of the Head of Household

Sex of HH Head	Poverty	Moderate Hunger	Severe Hunger	Moderate or Severe Hunger	Total
Male	Non poor	9.5	1.2	10.7*	100
	Poor	13.1	5.6	18.4*	100
	Total	10.5	2.4	12.9	100
Female	Non poor	17.0	2.7	19.7	100
	Poor	19.4	8.3	27.8	100
	Total	17.8	4.6	22.4	100

*The difference is significant at the 5% threshold

5.2 Global Acute Malnutrition (GAM) in the RISE Zone (Indicator 10)

This indicator measures the proportion of children under 5 years of age who are acutely malnourished based on a comparison of a child's weight to his/her height.

GAM is a standard measure used globally. Both inadequate dietary intake and disease are the immediate causes of acute malnutrition.

5.2.1 Methodology Note

Global Acute Malnutrition (GAM) as defined by a weight-for-height Z score of two standard deviations below the global mean, which is calculated by the World Health Organization (WHO). In other words, the WHO lists an average weight for any given height, based on data from around the world. Children whose weight is significantly below that average based on their height are considered acutely malnourished. The threshold is two standard deviations below the average. Figures are provided by the WHO.

A different set of standards is used for children under the age of 2 and those aged 2 – 5 years, because the older children are measured in terms of standing height while the younger children are measured in terms of length. This results in a minor discontinuity in height at the age of two but does not otherwise affect the calculations.

5.2.2 Findings: Global Acute Malnutrition

The GAM rate in the entire RISE survey area is 17.2% weighted and 17.8% unweighted. It is slightly lower in the High stratum (16.2%) than in the Low stratum (18.7%). Again, this could be a function of early implementation of the RISE interventions in the High exposure zones, but it may also be a matter of chance; subsequent rounds of data collection will add additional insight. See Table 5.7.

There are differences in GAM rates based on a number of secondary factors, as indicated in Table 5.7. First, a greater share of children are acutely malnourished in Burkina Faso (19.5%) than in Niger (15.8%). Second, male-headed households have a higher acute malnutrition rate (17.9%) than do households headed by females (15.6%). This is an interesting finding given that female-headed households tend to be poorer, and may be related to the manner in which female heads of household distribute available food resources, but additional rounds of data are necessary to confirm the finding. Finally, boys are acutely malnourished at a higher rate than are girls (19.2% vs. 16.4%).

Table 5.7: Global Acute Malnutrition (GAM) Rate (unweighted)

		Malnourished child			Malnourished child		
		No	Yes	Total	No	Yes	Total
		Headcount	Headcount	Headcount	%	%	%
Whole Area		2,786	603	3,389	82.2	17.8	100
Stratum	High	1,067	207	1,274	83.8	16.2	100
	Low	1,719	396	2,115	81.3	18.7	100
Country (RISE Zone)	Burkina Faso	1,484	359	1,843	80.5	19.5	100
	Niger	1,302	244	1,546	84.2	15.8	100
Sex of HHH	Male	2,640	576	3,216	82.1	17.9	100
	Female	146	27	173	84.4	15.6	100
Sex of the Child	Boy	1,410	334	1,744	80.8	19.2	100
	Girl	1,376	269	1,645	83.6	16.4	100

Household Poverty and Global Acute Malnutrition

A finding worth noting is that no correlation is found between household poverty and the likelihood that children in those households are malnourished. We disaggregated households by their poverty status—that is, whether or not the household members each live on \$1.25 or less per day on average. Overall, approximately 37 percent of households in the RISE zone fall below the poverty threshold; this figure is slightly higher than the reported share of individuals living below the poverty threshold (34 percent) because the calculation here is based on households in which members are in poverty, rather than on the individuals themselves (and poorer households in the study area tend to have more members). We then calculated the proportion of malnourished children living in the poor households and the non-poor households. In the households that fall below the poverty threshold, 18.8 percent of children (238 out of 1268 total) were coded as malnourished; this compares to 17.2 percent (365 out of 2121 total) in the non-poor households. That difference is in the expected direction but is fairly minor in substantive terms and is not statistically significant ($p=0.25$). In a correlation test between household poverty and childhood malnutrition, the Pearson's correlation coefficient is only 0.02, adding further evidence that no relationship exists between household-level poverty and the likelihood of children in those households being malnourished.

The lack of correlation between household poverty and malnourished children is counter-intuitive but could be explained in two possible ways. First, from a computational standpoint, it could be that more children in poor households tend to fall just below the threshold for malnourishment, whereas children in the non-poor households tend to be well below that threshold. If that were the case, the standard guidelines for poverty and global acute malnutrition would unfortunately mask the

nutritional consequences of poverty in the RISE zone. Alternatively, from a behavioral standpoint, it could be that parents and caretakers in the poorest households are devoting a greater share of resources and food to the nourishment of their children, prioritizing this challenge over the many others they face. If this were the case, the data would reveal the capacity of households to reprioritize in favor of basic nutritional needs when resources are particularly limited.

Table 5.8: Global acute malnutrition and poverty (unweighted)

		Poor		Total
		No	Yes	
Acutely malnourished	No	1,756	1,030	2,786
	Yes	365	238	603
Total		2,121	1,268	3,389

Table 5.9: Correlation between child malnutrition and household poverty (unweighted)

		Acutely malnourished	Poor
Acutely malnourished	Pearson Correlation	1	0.020
	Sig. (2-tailed)		0.250
	N	3,389	3,389
Poor	Pearson Correlation	0.020	1
	Sig. (2-tailed)	0.250	
	N	3,389	3,676

In terms of malnutrition by ethnic group, some important differences are apparent. In the RISE zone of Niger, the Hausa and Zarma have relatively low rates of Global Acute Malnutrition among children, at 15.2 percent and 11.3 percent, respectively. Conversely, the rate of childhood malnutrition among the Fulfuldé/Peul reaches 19 percent, and fully one-quarter of Tuareg children are malnourished. The Bella and Songhai fall in between those extremes. In the Burkina Faso study zone, the predominant Mossi are also the least malnourished: 15.6 percent of those children fall below the malnutrition threshold, compared to 22 percent of the Gourmantché, 22.6 percent of the Fulfuldé/Peul, and 26.3 percent of the Bella. That excludes the Songhai, who are less likely to be malnourished but who also account for only about two percent of the children in the Burkina Faso area of the RISE zone. See Table 5.10 below for more detail.

Table 5.10: Global acute malnutrition (GAM) rates in RISE zone by ethnic group

		Acute Malnutrition			Acute Malnutrition		
		No	Yes	Total	No	Yes	Total
		Number	Number	Number	%	%	%
Entire zone		2786	603	3389	82.2	17.8	100.0
Stratum	High	1067	207	1274	83.8	16.2	100
	Low	1719	396	2115	81.3	18.7	100
Country (RISE zone)	Burkina	1484	359	1843	80.5	19.5	100
	Niger	1302	244	1546	84.2	15.8	100
Sex of HH head	Male	2640	576	3216	82.1	17.9	100
	Female	146	27	173	84.4	15.6	100
Sex of child	Boy	1410	334	1744	80.8	19.2	100
	Girl	1376	269	1645	83.6	16.4	100
Ethnic Group	Mossi Burkina	634	117	751	84.4	15.6	100
	Fulfuldé/Peul Burkina	390	114	504	77.4	22.6	100
	Gourmantché Burkina	298	84	382	78.0	22.0	100
	Songhai/Sonraï Burkina	39	3	42	92.9	7.1	100
	Tuareg Burkina	3	0	3	100	0.0	100
	Bella Burkina	87	31	118	73.7	26.3	100
	Other ethnic groups, Burkina	28	8	36	77.8	22.2	100
	Hausa Niger	730	131	861	84.8	15.2	100
	Zarma Niger	211	27	238	88.7	11.3	100
	Fulfuldé/Peul Niger	111	26	137	81.0	19.0	100
	Gourmantché Niger	0	0	0	0.0	0.0	0,0
	Tuareg Niger	51	17	68	75.0	25.0	100
	Bella Niger	27	6	33	81.8	18.2	100
	Songhai/Sonraï Niger	166	36	202	82.2	17.8	100
	Other ethnic groups, Niger	5	0	5	100	0.0	100
Poverty	Not poor	1756	365	2121	82.8	17.2	100
	Poor	1030	238	1268	81.2	18.8	100

5.3 Prevalence of Stunted Children Under 5 Years of Age (Indicator 11)

Stunted growth refers to low height-for-age, when a child is short for his/her age but not necessarily thin. The indicator measures the proportion of children under 5 years of age in the RISE study zone who are categorized as moderately and severely stunted. RISE interventions that address access to stable food sources are intended to combat stunting in the region.

5.3.1 Methodology Note

Moderate and severe stunting are defined by a length/height Z score of two or three standard deviations, respectively, below the global mean, calculated by the World Health Organization (WHO). That is, the WHO provides average height/length for all ages up to 5 years, in terms of months. Children who are significantly below the average height/length for their age are considered moderately or severely stunted.

A different set of standards is used for children under the age of 2 and those aged 2 – 5 years, because the older children are measured in terms of standing height while the younger children are measured in terms of length.

5.3.2 Findings: Prevalence Stunting in Children under 5

In total, more than four out of every ten children in the study zone are moderately or severely stunted. As Table 5.11 shows, 42.5% of children in the weighted sample (42.1% unweighted) are at least two standard deviations below the average height/length for their age. There is no significant difference in stunting rates across the High and Low exposure zones at this baseline period.

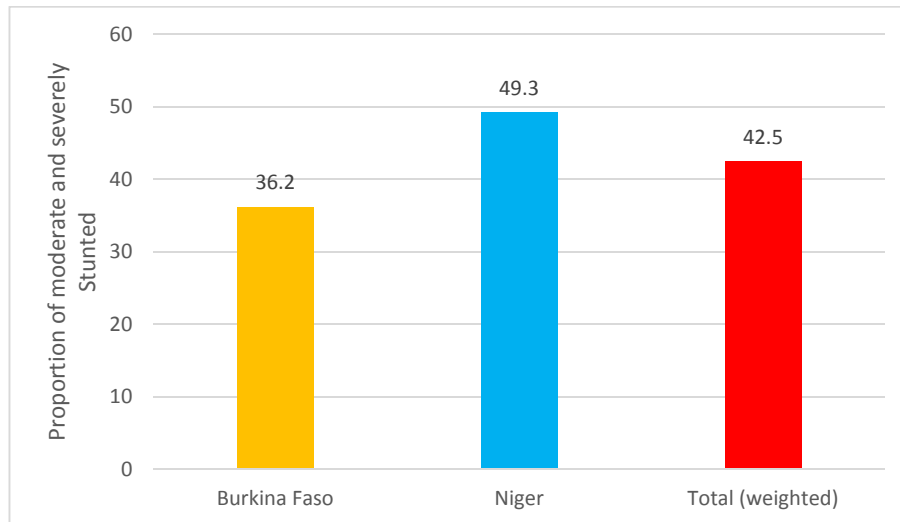
Table 5.11: Prevalence of Moderate and Severe Stunting in Children under 5

		Stunting			Stunting		
		No	Yes	Total	No	Yes	Total
		Count	Count	Count	%	%	%
Whole Area		1, 964	1, 427	3, 391	57.5*	42.5*	100
Stratum	HIGH	720	548	1, 268	56.8	43.2	100
	LOW	1, 244	879	2, 123	58.6	41.4	100
Country	Burkina Faso	1, 188	673	1, 861	63.8	36.2	100
	Niger	776	754	1, 530	50.7	49.3	100
Sex of HHH	Male	1, 872	1, 350	3, 222	58.1	41.9	100
	Female	92	77	169	54.4	45.6	100
Sex of the child	Boy	961	783	1, 744	55.1	44.9	100
	Girl	1, 003	644	1, 647	60.9	39.1	100

* Weighted

However, it must be noted that the rate of moderate and severe stunting is high in surveyed villages in the RISE zone of Niger (49.3%) compared to the Burkina Faso study area (36.2%); essentially half of all children in the Niger area suffer from moderate and severe stunting (see Figure 5.1).

Figure 5.1: Moderate and Severe Stunting Rates by Country (RISE zone)



Referring back to Table 5.11, children in female-headed households face a somewhat higher rate of moderate and severe stunting than do children in male-headed households. Boys in the RISE zone are also somewhat more prone to moderate and severe stunting than are girls (44.9% vs. 39.1%).

5.4 Prevalence of Underweight Children under 5 (Indicator 12)

Underweight status indicates that a child does not weigh as much as he/she should, based on age. The indicator measures the proportion of children in the RISE study zone who fall significantly below the global average.

5.4.1 Methodology Note

Underweight status is defined by a weight Z score of two standard deviations below the global mean, calculated by the World Health Organization (WHO). That is, the WHO provides average weight for all ages up to 5 years, in terms of months. Children who are significantly below the average weight for their age are considered acutely underweight. The threshold for acutely underweight is two standard deviations below the mean, provided by the WHO. Measures of weight are consistent for all age groups within the 0-5 year range.

5.4.2 Findings: Proportion of Underweight Children under 5

Overall, nearly one-third (32.7% weighted; 33.2% in the unweighted sample) of children in the surveyed households are acutely underweight. This figure does not differ significantly across the High and Low exposure zones (32% vs. 33.9%). Slightly fewer children are underweight in the High stratum where RISE interventions are taking place, but we caution against attributing that minor difference to the interventions at this early stage. See Table 5.12.

Again, we see a notable difference across countries in the study zone: 39.3% of children surveyed in Niger, versus 28.2% in Burkina Faso, are acutely underweight (see Table 5.12). Boys are also more likely to be underweight for their age than are girls (35.4% vs. 30.9%). There is no significant difference in the prevalence of underweight children based on male or female heads of household.

Table 5.12: Prevalence of Underweight Children under 5

		Underweight			Underweight		
		No	Yes	Total	No	Yes	Total
		Count	Count	Count	%	%	%
Whole Area		2, 269	1, 128	3, 397	67.3*	32.7*	100
Stratum	HIGH	863	406	1, 269	68.0	32.0	100
	LOW	1, 406	722	2, 128	66.1	33.9	100
Country	Burkina Faso	1, 338	525	1, 863	71.8	28.2	100
	Niger	931	603	1, 534	60.7	39.3	100
Sex of HHH	Male	2, 155	1, 073	3, 228	66.8	33.2	100
	Female	114	55	169	67.5	32.5	100
Sex of the child	Boy	1, 129	618	1, 747	64.6	35.4	100
	Girl	1, 140	510	1, 650	69.1	30.9	100

* Weighted

5.5 Household Dietary Diversity (Indicator 16)

Household Dietary Diversity is a score that indicates the extent to which members of the household consume a variety of critical food groups. It replaces the indicator for Women's Dietary Diversity, which is similar but which requires that the data relate exclusively to the food consumption of females.

The measure accounts for consumption in the previous 24 hours of 12 different food categories, by any member of the household. The food categories include: cereals, roots and tubers, vegetables, fruits, meat and poultry, eggs, fish and seafood, legumes and nuts, milk, oil, sugar, and miscellaneous (condiments, spices, etc.). The guidelines are based on the definition for dietary diversity developed by the Food and Agriculture Organization of the United Nations.

5.5.1 Methodology Note

The household is given a score of 1 for each of the 12 food categories that someone in the household consumed during the 24 hours prior to the survey. Households thus receive a score of 0-12 for Household Dietary Diversity, which can then be averaged across the study zone.

5.5.2 Findings: Household Dietary Diversity

The average Household Dietary Diversity score across the RISE study zone is 5.1 (weighted) and 5.2 (unweighted) out of 12. Worth noting is the fact that household diets in the communities under study in Burkina Faso are more diverse than those in Niger: Burkinabe households scored an average of 6.1 out of 12, while Niger households scored an average of just 4.0 out of 12. There are no notable differences at this point across the High and Low exposure zones. Male-headed households appear to have slightly more diverse diets than their female-headed counterparts. Households with divorced and widowed heads tend to have a less diverse diet, but interestingly, those whose head of household never married have more diverse diets. This is likely due to the smaller household size (i.e. young individuals living alone) and perhaps the tendency to eat outside of the home more frequently. See Table 5.13 for details.

Table 5.13: Household Dietary Diversity

		Dietary Diversity Score (Out of 12)
Whole Area		5.1*
Stratum	HIGH	5.0
	LOW	5.3
Country	Burkina Faso	6.1
	Niger	4.0
Sex of HHH	Male	5.3
	Female	4.5
Marital Status of Household Head	Never got married	6.4
	Married, monogamous	5.2
	Married, polygamous	5.3
	Cohabitation	6.3
	Divorced/separated	4.3
	Widow(er)	4.7

* Weighted

5.6 Prevalence of Children Receiving a Minimum Acceptable Diet (Indicator 17)

The Minimum Acceptable Diet (MAD) is a global dietary standard for children aged 6-23 months. It addresses two principles: the frequency of feedings and the diversity of diet. Frequency generally requires that children eat at least two meals per day, three for those over six months of age. Diversity requires at least four food groups. Breastfeeding is also taken into account.

5.6.1. Methodology Note

Data is drawn from children aged 6 – 23 months living in the surveyed households in the RISE zone. The measure accounts for both diversity—in terms of food groups consumed by the children—and frequency of meals. Standards differ based on age categories (6 – 8 months vs. 9 – 23 months) and on whether or not the child is breastfed. Those standards are as follows:

- 1) 6 – 8 months, breastfed: at least 2 meals per day and 4 food categories
- 2) 9 – 23 months, breastfed: at least three meals per day and 4 food categories

- 3) 6 – 23 months, not breastfed: at least 2 meals per day, 4 food categories, and 2 milk servings.

5.6.2. Findings: Children with a Minimum Acceptable Diet

The Sahel resilience quantitative survey data shows that very few children in the RISE zone receive a Minimum Acceptable Diet. Indeed, only 5.2% of the weighted sample of 1,097 children aged 6 – 23 months counted during the data collection stage receive a MAD. The unweighted mean is 5.4%. The figure is slightly lower in the High exposure communities (4.9%) compared to the Low exposure ones (5.7%), though the difference across this stratum will not be meaningful until subsequent rounds of data are collected. Children in Burkina Faso have somewhat better odds of receiving a MAD. Importantly, the data indicates that children aged 9-23 months are more likely to receive a MAD than are the younger children aged 6 – 8 months (5.8% vs. 3.2%). Analysis by sex of the child shows no significant difference in terms of MAD across boys (5.6%) and girls (5.1%). See Table 5.14 for details.

Table 5.14: Share of Children Receiving a Minimum Acceptable Diet

		MAD (Count)			MAD (%)		
		No	Yes	Total	No	Yes	Total
		Count	Count	Count	%	%	%
Whole Area		1, 038	59	1, 097	94.8*	5.2*	100
Stratum	HIGH	407	21	428	95.1	4.9	100
	LOW	631	38	669	94.3	5.7	100
Country	Burkina Faso	565	39	604	93.5	6.5	100
	Niger	473	20	493	95.9	4.1	100
Age (mos.)	6-8 months	179	6	185	96.8	3.2	100
	9-23 months	859	53	912	94.2	5.8	100
Sex of the child	Boy	518	31	549	94.4	5.6	100
	Girl	520	28	548	94.9	5.1	100

* Weighted

5.7 Prevalence of Exclusive Breastfeeding in Children under 6 Months (Indicator 18)

Exclusive breastfeeding in the first months of life has proven important for the long-term health of children. This indicator measures the proportion of children aged 0 – 6 months who are exclusively breastfed.

5.7.1 Methodology Note

1.1 Children are counted as receiving exclusive breastfeeding if they receive breastmilk but no other foods or liquids (aside from possible rehydration solutions).

5.7.2 Findings: Exclusive Breastfeeding

As Table 5.15 shows, approximately one-third of all children aged 0 – 6 months in the RISE zone are exclusively breastfed (35.1% weighted; 33.7% unweighted). This figure is in keeping with results from similar studies in neighboring countries. A greater proportion of children are exclusively breastfed in the High exposure zones compared to the Low exposure zones (37.8% vs. 30.7%), but again, we caution against drawing conclusions based on the RISE interventions at this baseline stage. Rates of exclusive breastfeeding are also higher in Niger than in Burkina Faso (36.2% vs. 31.8%), and interestingly, girls in the RISE zone are exclusively breastfed at a greater rate than are boys (37.5% vs. 29.5%).

Table 5.15 Prevalence of Exclusive Breastfeeding in Children under 6 Months

		Exclusive Breastfeeding			Exclusive Breastfeeding		
		No	Yes	Total	No	Yes	Total
		Count	Count	Count	%	%	%
Whole Area		230	117	347	64.9*	35.1*	100
Stratum	High	92	56	148	62.2	37.8	100
	Low	138	61	199	69.3	30.7	100
Country (RISE Zone)	Burkina Faso	133	62	195	68.2	31.8	100
	Niger	97	55	152	63.8	36.2	100
Sex of the Child	Boy	122	51	173	70.5	29.5	100
	Girl	108	66	174	62.1	37.9	100

* Weighted

6. COMMUNITY GOVERNANCE AND RESILIENCE TO CLIMATE SHOCKS

Households and communities can take a number of steps to strengthen their resilience to climate shocks. RISE interventions aim to fortify these capacities so that residents of the RISE zone remain safely free of subsistence concerns when their communities are struck by drought, flooding, erosion, or other climate related shocks. The indicators addressed in this chapter include community-level evidence of good governance, evidence of good capacity to manage climate shocks, evidence of individuals' engagement with local power structures, and evidence of non-agricultural sources of income.

6.1 Communities Demonstrating Good governance (Indicator 7)

Good governance at the community level includes the following components: natural resource management plans, conflict management systems, successful dispute mediation, and community development plans. Communities that develop good governance in these domains are better prepared to navigate sudden changes that result from climate shocks.

6.1.1. Methodology Note

Communities that show evidence of at least two of the following four key elements are considered to demonstrate good governance:

- Natural resource management plans
- Conflict management systems
- Successful dispute mediation (meaning at least half of community-level disputes were resolved)
- Community development plans

Data are drawn from questions on the village questionnaire.

6.1.2.1. Findings: Good governance

Survey results from the village questionnaire indicate the following:

- Throughout the RISE zone, slightly more than half of communities have demonstrated good governance (55.9% weighted; 57% unweighted).
- 54.1% of the High exposure communities demonstrated good governance, while 58.7% of the Low exposure communities did so.

- An important cross-border difference exists in terms of village-level good governance. In Burkina Faso, 65.5% of communities demonstrated good governance, while only 45.2% of villages in Niger did so.

Table 6.1: Proportion of Communities with Good Governance

		Good governance (Count)		Good governance (%)	
		No	Yes	No	Yes
RISE total	(weighted)			44.1	55.9
	(unweighted)	43	57	43.0	57.0
Stratum	HIGH	17	20	45.9	54.1
	LOW	26	37	41.3	58.7
Country	Burkina Faso	20	38	34.5	65.5
	Niger	23	19	54.8	45.2

6.2 Communities Demonstrating Good Climate Shock and Risk Management Capability (Indicator 8)

Climate shock and risk management capability refers to the ability of communities to adapt to climate shocks and risks in systematic, village-wide ways, and to face the adverse impacts of climate shocks with minimal disruption. Improved management capability with regard to climate shocks also refers to the ability of communities to take advantage of positive opportunities that may arise from climate change. Two criteria serve as the primary basis for the indicator: 1) level of community members' application of new techniques or practices for adapting to climate change, and 2) community members' own assessment of the efficacy of the adaptations. Practices that conserve soil and water, improve the health and productivity of crops and livestock, and diversify sources of revenue all count as activities that help to reduce climate shocks at the village level.

6.2.1. Methodology Note

Villages may undertake a host of climate-related activities. To demonstrate good climate shock management capabilities, villages must 1) apply practices or techniques that mitigate the effects of climate-change, 2) implement at least two of them to an average or high level, and 3) assess the efficacy of these adaptations to the effects of climate change at an average or very effective level.

6.2.2. Findings: Climate Shock Management Capacity

As Table 6.2 shows, only 31.4% (weighted) of surveyed communities in the RISE zone meet the criteria for good capacity to manage climate shock (31.0% unweighted). There is no notable difference across High and Low exposure areas. In terms of cross-border differences, villages in the Burkina Faso RISE zone show a higher tendency toward preparedness for climate shocks (36.2% versus 23.8%).

Table 6.2: Climate Shock and Risk Management Capability

		Whole Area	Stratum		Country	
			HIGH	LOW	Burkina Faso	Niger
Count						
Good Climate Shock and Risk Management Capability	No	69	25	44	37	32
	Yes	31	12	19	21	10
	Total	100	37	63	58	42
Percentage						
Good Climate Shock and Risk Management Capability	No	69.0 (68.6*)	67.6	69.8	63.8	76.2
	Yes	31.0 (31.4*)	32.4	30.2	36.2	23.8
	Total	100%	100%	100%	100%	100%

* Weighted

Techniques and practices adopted to combat effects of climate change

A focus group in each of the 100 communities surveyed during the baseline study was asked to cite the three principal practices or techniques adopted in the village to deal with the effects of climate change. The results are summarized in Tables 6.3 and 6.4 below which reveal that a variety of practices and techniques are being applied, notably, to secure both agricultural and animal production. Organic fertilizer and improved seeds were by far the most-cited practices by Nigerien communities (23% and 18.3%) as well as by Burkinabe communities (15.5% and 18.4%, respectively).

Overall, more than a quarter (26.2%) of the communities surveyed cited adoption of a soil and water conservation technique led by zais (9.3%) and earth bunds (8.0%), and followed by half-moons (4.3%), composting (3.3%) and benches (banquettes) (1.3%), but a large majority of the communities applying these practices are from the RISE zone in Burkina Faso. For example, 14.4% of RISE zone communities in Burkina reported use of zais to combat climate change compared to 2.4% in Niger – a difference that may be partly attributable to differences in soil types. The Niger

RISE zone communities cited higher use of mineral fertilizers (7.1%) and cultivation techniques (7.1) than did the Burkina Faso communities (3.5 and 1.7%).

Only 1.67% of the surveyed villages cited tree planting as one of their top three practices they use to mitigate climate change and fewer still (0.33%) cited forage cultivation and processing.

Table 6.3: Principal practices adopted in surveyed villages to adapt to climate change (number of times cited)

Techniques/Practices	Burkina Faso RISE zone			Niger RISE zone			Overall Total
	High	Low	Total Burkina	High	Low	Total Niger	
Organic fertilizer	9	18	27	12	17	29	56
Improved seeds	13	19	32	13	10	23	55
Zai	14	11	25		3	3	28
Bunds	9	14	23		1	1	24
Immunization (animals)	2	13	15	1	3	4	19
Mineral fertilizer		6	6	4	5	9	15
Half moon	3	5	8		5	5	13
Cultivation techniques (seeding rate, crop rotation)		3	3	6	3	9	12
Composting	3	6	9		1	1	10
Irrigation (off season)	1	2	3	2	2	4	7
Breed improvement	1	5	6				6
Feed improvement	1	4	5				5
De-worming	1	1	2	1	2	3	5
Tree planting	2	2	4		1	1	5
Benches (contour earth bunds);					4	4	4
Plant treatment				2	1	3	3
Feed treatment/conservation		1	1				1
Undeclared	1		1	8	9	17	18
Other		4	4	2	8	10	14
Overall Total	60	114	174	51	75	126	300

Table 6.4: Principal practices adopted in surveyed villages to adapt to climate change (percentage)

Techniques/Practices	Burkina Faso (%)			Niger (%)			Grand Total
	High	Low	Total	High	Low	Total	
Organic fertilizer	15.0	15.8	15.5	23.5	22.7	23.2	18.7%
Improved seeds	21.7	16.7	18.4	25.5	13.3	18.3	18.3%
Zai	23.3	9.7	14.4	0.0	4.0	2.4	9.3%
Bunds	15.0	12.3	13.2	0.0	1.3	0.8	8.0%
Immunization (animals)	3.3	11.4	8.6	2.0	4.0	3.2	6.3%
Mineral fertilizer	0.0	5.3	3.5	7.8	6.7	7.1	5.0%
Half moon	5.0	4.4	4.6	0.0	6.7	4.0	4.3%
Cultivation techniques (seeding rate, crop rotation)	0.0	2.6	1.7	11.8	4.0	7.1	4.0%
Composting	5.0	5.3	5.2	0.0	1.3	0.8	3.3%
Irrigation (off season)	1.7	1.8	1.7	4.0	2.7	3.2	2.3%
Breed improvement	1.7	4.4	3.5	0.0	0.0	0.0	2.0%
Feed improvement	1.7	3.5	2.9	0.0	0.0	0.0	1.7%
De-worming	1.7	0.9	1.2	2.0	2.7	2.4	1.7%
Tree planting	3.3	1.8	2.3	0.0	1.3	0.8	1.7%
Benches (contour earth bunds)	0.0	0.0	0.0	0.0	5.3	3.2	1.3%
Plant treatment	0.0	0.0	0.0	4.0	1.3	2.4	1.0%
Feed treatment/conservation	0.0	0.9	0.6	0.0	0.0	0.0	0.3%
Undeclared	1.7	0.0	0.6	15.7	12.0	13.5	6.0%
Other	0.0	3.5	2.3	3.9	10.7	7.9	4.7%
Overall Total	100%	100%	100%	100%	100%	100%	100%

6.3 Shock and Household Recovery Strategies

Though not directly serving any of the RISE indicators that SAREL measured, the scope of climate-related shocks that households in the RISE zone face is critical to developing a baseline understanding of climate-related challenges. Changes associated with various economic, social and political disorders have additional impacts on households in the Sahel and can exacerbate climate-related shocks. Households facing these various challenges must somehow develop strategies to recover.

In this section, we discuss the shocks sustained by households over the five-year period preceding the survey, as well as over the previous 12 months. We also report on the frequency of shocks and the recovery strategies that households undertake.

6.3.1. Exposure to Shocks over the Past Five Years

The data indicate that fully 92.0% of surveyed households have experienced a shock over the past five years (see Table 6.5).

Table 6.5: Shock Incidence in Households during Past 5 Years

Country	Stratum		Total
	Low	High	
Burkina Faso	87.4	86.4	87.0
Niger	99.5	98.1	98.9
Total	92.2	91.8	92.0

These shocks affect roughly the same proportion of households in the High (91.8%) and Low (92.2%) strata. However, the share of households affected by the shocks is higher in the surveyed RISE zone communities in Niger (98.9%) than in Burkina Faso (87.0%). These shocks are diverse in nature and are presented in the following section.

6.3.2. Type of Shocks Sustained over the Past Five Years

The main categories of shocks include natural disasters, conflicts, and socioeconomic, anthropogenic and psychosocial shocks. The results in Table 6.6 show that in 46.3% of cases, households reported experiencing shocks due to natural disasters. Those are followed by socioeconomic (34.9%), psychosocial (11.1%), conflict (6.3%) and anthropogenic shocks (0.9%).

Table 6.6: Shock Structure

Shock Structure	Number of HH suffering shock type (at least once in previous 5 years)	Percentage
Natural Disaster	4,193	46.3
Excessive rains	442	10.5
Too little rain/drought	1,950	<u>46.5</u>
Massive insect invasion	836	19.9
Epizootic	929	<u>22.2</u>
Bush fires	36	0.86
Conflicts	570	6.3
Land conflicts	97	17.0
Conflicts between farmers and breeders	137	<u>24.0</u>
Violence involving communities	5	0.88
Theft of assets/holdups (animals, crops)	331	<u>58.1</u>
Socioeconomic Shocks	3,163	34.9
Sharp food price increase	1,185	<u>37.5</u>
Unavailability of agricultural inputs	349	11.0
Drop in agricultural product demand	95	3.0
Disease/exceptional health-related expense	771	<u>24.4</u>
Debt repayment	239	7.6
Increase in price of agricultural inputs	268	8.5
Drop in price of agricultural products	126	4.0
Job loss by household member	32	1.0
Long-term unemployment	34	1.1
Sudden ending of regular aid	41	1.3
Sudden increase in household size	23	0.7
Anthropogenic Shocks	81	0.9
Fires (housing, crops)	81	100
Psychosocial Shocks	1,008	11.1
Death of household member	417	<u>41.4</u>
Emigration of household member	133	13.2
Serious illness of household member	458	<u>45.4</u>
Other	40	0.4
Forced repatriation	7	17.5
Household dislocation	33	82.5

Disaggregating those broad categories provides more specific information regarding the triggers of these shocks:

- In the category of natural disasters, drought was reported in 46.5% of households, followed by animal diseases (22.2%) and insect invasion (19.9%). These factors account for the vast majority of cases (88.6%);

- In terms of conflict, looting of property and crops (58.1%), conflicts between farmers and herders (24.0%) and land conflicts (17.0%) were the most common;
- As for socioeconomic impacts, the sharp rise in food prices and disease/exceptional health expenditures are reported in 37.5% and 24.4% of cases, respectively, representing over 61% of socioeconomic shocks;
- Serious illness (45.4%) and death (41.4%) of a household member were the primary sources of psychosocial shocks;
- Anthropogenic shocks relate frequently to house/harvest fires. Other shocks in this category are forced repatriation (17.5%) and the disintegration of the family (82.5%).

Table 6.7 highlights patterns in shocks that households experienced during the past 5 years across RISE countries and exposure strata. Specifically:

- In both Burkina Faso and Niger, natural disasters are the mostly reported shock, occurring in 47.6% and 45.2% of households, respectively. 1,950 instances of shock due to drought were reported, making drought the most common source of shock.
- Importantly, socioeconomic shocks are also widely reported in the RISE zone, with 34.9% of households reporting some form of socioeconomic shock. Furthermore, 1,185 instances of sharp food prices were reported, second only to shocks due to drought. Differences are more marked between the two countries in terms of socioeconomic shocks, which are higher in surveyed RISE zone communities in Niger (39.4%) than in Burkina Faso (29.9%); i.e., a difference of about 10 percentage points.
- Psychosocial shocks are higher in Burkina Faso (14.0%) than in Niger (8.6%). While significant, these shocks and shocks due to conflict are not as prominent in the region as are shocks due to natural disaster and price changes.

Table 6.7: Shock Structure by Country and by Stratum

Shock Structure	Country			Stratum		
	Burkina Faso	Niger	Total	Low	High	Total
Natural Disaster	47.6	45.2	46.3	46.4	46.2	46.3
Conflicts	7.6	5.1	6.3	6.0	6.8	6.3
Socioeconomic Shocks	29.9	39.4	34.9	35.1	34.7	34.9
Anthropogenic Shocks	0.5	1.2	0.9	0.9	0.9	0.9
Psychosocial Shocks	14.0	8.6	11.1	11.2	11.0	11.1
Other	0.5	0.4	0.4	0.4	0.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note also that the structure of shocks does not differ markedly across High and Low exposure zones at this stage in the RISE program.

6.3.3. Frequency of Shocks Sustained over the Past Five Years

Over three-quarters of shock types sustained over the past five years have occurred 1-3 times per household, and 22.1% of shock types have occurred 4-6 times per household (see Table 6.8). Importantly, nearly one-third of households experienced more than three socioeconomic shocks during the past five years.

Table 6.8: Frequency of Shocks by Type

Shock Structure	Shock Frequency				Total
	None	1-3	4-6	7 and more	
Natural Disaster	0.0	80.3	19.3	0.4	100
Conflicts	0.0	76.3	21.7	1.9	100
Socioeconomic	0.0	68.4	30.5	1.1	100
Anthropogenic	0.0	97.5	2.5	0.0	100
Psychosocial	0.0	89.6	9.8	0.5	100
Other	0.0	100.0	0.0	0.0	100
Total	0.0	77.2	22.1	0.7	100

6.3.4. Shocks Sustained over the Past Twelve Months

We also gathered data on shocks experienced by households during the past twelve months. Survey results show that 64.4% of households surveyed have experienced a shock during that period (see Table 6.9).

There is no difference in shock exposure by High and Low stratum during this period. Interestingly, the likelihood of shock over the past twelve months is greater in Burkina Faso (67.0%) compared to Niger (60.4%), though shocks over the past five years are more common in Niger. These shocks are diverse in nature and are presented in the following section.

Table 6.9: Shock Distribution over the Previous Twelve Months (%)

Stratum	Country		Total
	Burkina Faso	Niger	
Low	65.0	63.9	64.6
High	69.0	57.6	64.3
Together	67.0	60.4	64.4

6.3.5. Type of Shocks Sustained over the Previous Twelve Months

Tables 6.10 and 6.11 indicate that natural disasters and socioeconomic shocks were the mostly commonly reported types of shock sustained in the previous twelve months, led by drought (25.2%) and animal disease outbreaks (10.9%) and sharp food price increases (14.2%) and exceptional health expenditures (8.9%).

- In the category of natural disasters, respondents (heads of household) also noted 469 insect invasions in the twelve months preceding the survey (8% of all reported shocks).
- Unavailability of agricultural and livestock inputs and increases in agricultural and livestock input prices were socioeconomic shocks that affected a large number of survey respondents and comprised 4.6 and 3.7% respectively of all shocks cited.
- The major psychosocial shocks noted by survey respondents were serious illnesses and deaths of household members, representing 4.7% and 2.7% of all shocks reported
- Shocks related to conflict did not make up a large proportion of the total experienced in the previous 12 months. There were 198 shocks that involved looting of property and crops, and 82 involving conflicts between farmers and herders, representing 3.4 and 1.4% of the total, respectively.

Table 6.10: Shocks sustained over the previous 12 months in RISE zone (number)

Type of Shocks	High Exposure	Low	Total
Natural disasters			
Excessive rains	41	68	109
Too little rain/drought	439	1031	1470
Massive insect invasion	204	265	469
Epizootic (animal disease outbreak)	286	349	635
Bush fires	4	10	14
Conflict-related shocks			
Land conflicts	21	26	47
Conflicts between farmers and herders	18	64	82
Theft of assets/holdups (animals, crops, etc.)	83	115	198
Socioeconomic shocks			
Sharp food price increase	314	515	829
Unavailability of agricultural or livestock inputs	96	174	270
Drop in agricultural or livestock product demand	22	25	47
Disease/exceptional health-related expense	207	313	520
Debt repayment	73	91	164
Increase in price of agricultural or livestock inputs	80	134	214
Drop in price of agricultural or livestock products	21	72	93
Job loss by household member	3	10	13
Long-term unemployment	9	22	31
Abrupt end of assistance/regular support from outside the household	9	15	24
Sudden increase in household size (including birth: triplets, etc.)	4	11	15
Anthropogenic shocks			
Fire (house, fields, etc.)	13	22	35
Psychosocial shocks			
Death of household member	65	92	157
Emigration of household member	39	66	105
Serious illness of household member	96	178	274
Other shocks			
Forced repatriation	2	2	4
Household dislocation	8	4	12
Overall Total	2,157	3,674	5,831

Table 6.11: Shocks sustained over the previous 12 months in RISE zone (percentage)

Type of Shocks	High Exposure	Low Exposure	Total
Natural disasters			
Excessive rains	1.9%	1.9%	1.9%
Too little rain/drought	20.4%	28.1%	25.2%
Massive insect invasion	9.5%	7.2%	8.0%
Epizootic (animal disease outbreak)	13.3%	9.5%	10.9%
Bush fires	0.2%	0.3%	0.2%
Conflict-related shocks			
Land conflicts	1.0%	0.7%	0.8%
Conflicts between farmers and herders	0.8%	1.7%	1.4%
Theft of assets/holdups (animals, crops, etc.)	3.9%	3.1%	3.4%
Socioeconomic shocks			
Sharp food price increase	14.6%	14.0%	14.2%
Unavailability of agricultural or livestock inputs	4.5%	4.7%	4.6%
Drop in agricultural or livestock product demand	1.0%	0.7%	0.8%
Disease/exceptional health-related expense	9.6%	8.5%	8.9%
Debt repayment	3.4%	2.5%	2.8%
Increase in price of agricultural or livestock inputs	3.7%	3.7%	3.7%
Drop in price of agricultural or livestock products	1.0%	2.0%	1.6%
Job loss by household member	0.1%	0.3%	0.2%
Long-term unemployment	0.4%	0.6%	0.5%
Abrupt end of assistance/regular support from outside the household	0.4%	0.4%	0.4%
Sudden increase in household size (including birth: triplets etc.)	0.2%	0.3%	0.3%
Anthropogenic Shocks			
Fire (house, fields)	0.6%	0.6%	0.6%
Psychosocial Shocks			
Death of household member	3.0%	2.5%	2.7%
Emigration of household member	1.8%	1.8%	1.8%
Serious illness of household member	4.5%	4.8%	4.7%
Other Shocks			
Forced repatriation	0.1%	0.1%	0.1%
Household dislocation	0.4%	0.1%	0.2%
Whole	100%	100%	100%

6.3.6. Severity of the Shocks over the Past Twelve Months

In disaster situations, the perceptions that people have of the severity of shocks is essential to understand the livelihood choices they make thereafter. Results in Table 6.12 suggest that the majority of shocks (58.9%) are interpreted as having a strong impact on households. An additional 28.0% of households perceive of shocks as having medium impact. Not all types of shocks are perceived with the same force, however.

Table 6.12: Perceived Impact by Type of Shock

Shock Structure	None	Slight impact	Medium impact	Strong impact	Worst impact	Total
Natural Disaster	1.0	8.2	27.9	61.2	1.7	100
Conflicts	1.8	14.7	23.0	59.5	0.9	100
Socioeconomic	1.3	9.7	30.6	56.7	1.8	100
Anthropogenic	5.7	8.6	20.0	57.1	8.6	100
Psychosocial	9.1	8.4	21.1	55.6	5.8	100
Other	0.0	0.0	25.0	68.8	6.3	100
Total	1.9	9.1	28.0	58.9	2.1	100

6.3.7. Resilience to Shocks Sustained over Twelve Months

Following shocks of any type, households undertook efforts to recover. The ability to do so successfully varied slightly according to the type of shock. Overall, 46.4% of households were unable to recover, particularly from anthropogenic shocks (51.4%), conflicts (47.7%), and natural disasters (47.6%). It is worth noting that some households (15.3%) have recovered to the same level as they were pre-shock, and some are even better off now than pre-shock (7.1%). Overall, however, over three-quarters of households surveyed either did not recover from shock or recovered to some degree but have been left worse off as a result of the shock (see Table 6.13).

Table 6.13: Recovery by Type of Shock

Shock Type	Did not recover	Recovered some, but worse off	Recovered to same level	Recovered and better off	Unaffected
Natural Disaster	47.6	34.9	13.1	4.0	0.4
Conflicts	47.7	24.5	18.0	6.0	4.0
Socioeconomic	45.9	29.2	16.1	8.1	0.8
Anthropogenic	51.4	31.4	14.3	2.9	0.0
Psychosocial	40.4	16.0	21.4	19.7	2.4
Other	68.8	12.5	12.5	6.3	0.0
Total	46.4	30.3	15.3	7.1	0.9

6.3.8 Shock Recovery Strategies

The survey data reveals that, by far, the strategy most frequently used by sample households in the RISE zone to contend with shocks experienced in the previous 12 months was selling of animals (48.9% of households in Burkina Faso and 55.3% in Niger). The second most widely used coping strategy was the reduction of food rations served (24.6% of households in Burkina Faso and 37% in Niger). Third was the consumption of food reserves (12% in Burkina and 15.1% in Niger).

Surveyed households in the RISE zone of Niger reported resorting to selling household goods (14.5%), borrowing money (14.5%) and renting land (11.3%) much more frequently than the households in Burkina Faso (1%, 5.1%, and 0.1% respectively).

In terms of safety nets, the strategies used in the RISE zones of Niger and Burkina Faso included obtaining food aid from government and participating in food for work (FFW)/cash for work (CFW) programs. A relatively higher number of Nigerien households used these strategies (6.5% and 4% respectively) than did Burkinabe households (2.3% and 2.2%).

Migration with “several family members” or with “the entire family” were not strategies cited by surveyed households in either country to cope with shocks during the previous 12 months. This is not surprising and no doubt reflects the fact that, in Niger at least, migration of some family members is viewed as a *permanent* component of household subsistence strategies rather than as a short-term remedy to shocks and stresses. Nevertheless, as noted above, obtaining remittances from a migrant relative was listed as an important coping strategy, particularly in Niger (11.5% of households). That squares with data from Table 3.22 on household revenue which indicate that in the RISE zone of Niger in particular, migration contributes significantly to household subsistence. See Table 6.14 below for details.

Table 6.14: Strategies employed by surveyed households to cope with shocks in previous 12 months (as percentage of all strategies listed)

Strategies	Burkina Faso			Niger		
	High	Low	Total	High	Low	Total
Take cattle in search of pasture	2.6	7.2	5.6	2.8	2.9	2.9
Sell animals	53.7	46.3	48.9	52.7	57.1	55.3
Slaughter cattle	0.0	0.0	0.0	3.1	3.4	3.3
Rent land	0.4	0.0	0.1	13.6	9.7	11.3
Migrate with several family members	0.0	0.0	0.0	1.2	0.6	0.9
Migrate with entire family	0.0	0.6	0.4	0.9	0.8	0.9
Send children to live with relatives	0.0	0.1	0.1	0.9	0.2	0.5
Withdraw children from school	0.6	0.9	0.8	0.7	0.6	0.7
Move into less expensive lodgings	0.0	0.4	0.3	0.0	0.2	0.1
Reduce food rations served	21.0	26.5	24.6	25.9	44.7	37.0
Take new, salaried work	0.0	0.0	0.0	1.2	0.3	0.7
Sell household goods	1.4	0.7	1.0	19.8	10.8	14.5
Sell productive assets	0.2	0.0	0.1	0.5	0.0	0.2
Contract loan with NGO	1.2	1.6	1.4	4.7	1.9	3.1
Contract bank loan	0.0	0.1	0.1	0.2	0.2	0.2
Contract loan with moneylender	4.8	5.3	5.1	11.8	16.3	14.5
Contract loan with friend	0.2	0.1	0.1	2.6	1.9	2.2
Send child to work to earn money	0.6	0.1	0.3	0.9	1.6	1.3
Receive money or food from a family member	0.2	0.6	0.5	2.6	2.3	2.4
Receive government food aid	3.0	2.0	2.3	6.4	6.6	6.5
Receive NGO food aid	0.0	0.6	0.4	0.5	3.1	2.0
Participate in CFW/FFW	1.0	2.8	2.2	4.7	3.6	4.0
Use savings	2.6	0.7	1.4	1.6	1.9	1.8
Obtain remittance from relative in migration	2.6	4.5	3.9	5.2	15.9	11.5
Consume a hardship product	0.2	0.1	0.1	0.0	0.2	0.1
Dig up termite hill for grain	0.0	0.1	0.1	0.0	0.2	0.1
Hunt, gather food products	0.2	0.2	0.2	4.2	6.6	5.7
Consume food reserves	9.4	13.4	12.0	16.5	14.2	15.1
Reduce number of meals	0.8	0.7	0.8	0.2	1.6	1.1
Other	8.8	9.5	9.2	6.8	11.7	9.7

6.4 Share of Individuals Engaged with Local Power Structures (Indicator 9)

When individuals engage with local power structures, their needs are more likely to take precedent over less critical government decisions. This helps to strengthen households' capacity for resilience, as government becomes aware of and thus more likely to address those household needs. This indicator measures the proportion of respondent household heads who report engaging with local power structures during past year.

6.4.1. Methodology Note

The survey question underpinning this indicator asks respondents (household heads) if they engaged with local power structures during the past year in order to bring about change. Whether or not their engagement actually did bring about change is immaterial; the importance of this indicator is to measure the effort respondents undertake to convey their concerns to local government.

6.4.2. Findings: Engagement with Local Power Structures

The following points summarize the survey results regarding engagement with local power structure:

- Throughout the RISE zone, only 13.2% of household heads engaged with local power structures during the past year. The weighted and unweighted means are identical.
- There is no discernable difference at this baseline stage across the High and Low exposure areas.
- In Burkina Faso, 12.2% of household heads engaged with local authority, compared to 14.6% of household heads in Niger.
- 13.9% of male household heads engaged with local power structures, compared to just 5.6% of female household heads. The discrepancy with the overall rate of 13.2% is due to the fact that more males responded to the Household Questionnaire than did females.
- Households with a monogamous, married head of household were the most likely to have a respondent report engaging with local authorities (14.2%). Just 3.7% of respondents from households in which the head of household never married reported doing so. Polygamous, married households reported doing so at a rate of 13.3%; 6.7% of those involved in cohabiting unions did so; the rate for divorced or separated households is 7.4%; and respondents from widowed heads of households reported a 5.5% likelihood of engaging local power structures.

6.5 Share of Households with Income from Non-Agricultural Sources (Indicator 6)

Households in the RISE zone typically rely on agriculture for revenue. Alternative more stable sources of income, however, can help buttress families against poor crop seasons, climate-related events, and swings in crop prices. This indicator accounts for the share of households drawing income from non-agricultural sources, such as crafts and artisanal work, professional or technical employment, employment as domestic help, and retail work.

6.5.1. Methodology Note

- If the proportion of household income derived from non-agricultural sources constitutes 10 percent or more of the household's overall income, non-agricultural sources are considered an **important** source of revenue for the household.
- If a household's non-agricultural income is derived from activities that take place only during the dry season or only during the wet season, the non-agricultural activities are considered a **Temporary** source of revenue for the household.
- If the household reports relying on any non-agricultural sources of income during times of stress, those non-agricultural sources of income are considered a **Critical** source of revenue for the household.

6.5.2. Findings: Non-Agricultural Sources of Income

Overall, close to three-quarters (71.1% weighted) of households draw income from non-agricultural sources. They do so in multiple and varied ways. As Table 6.15 indicates, 67.5% households rely on non-agricultural income as an important source of revenue (67.4% unweighted). 35.5% of households have temporary sources of non-agricultural income (36.2% unweighted). Finally, almost a quarter of all households (24.3%) rely on non-agricultural sources of income during times of stress, thus classified as a critical source of income (24.0% unweighted). At this stage in the RISE program, the difference across High and Low zones is minor.

Table 6.15: Non-Agricultural Sources of Income

Non-Agricultural Sources	(%)
Overall Mean	71.1 *
High Exposure Zone	71.3
Low Exposure Zone	70.8
Important Source of Revenue, Mean	67.5 *
High Exposure Zone	67.6
Low Exposure Zone	67.3
Temporary Source of Revenue, Mean	35.5 *
High Exposure Zone	33.4
Low Exposure Zone	39.0
Critical Source of Revenue, Mean	24.3 *
High Exposure Zone	22.9
Low Exposure Zone	26.6

* Weighted

Household Asset Value and Types of Non-agriculture Income

The relationship between the value of household assets and the reliance of those households on non-agricultural sources of income is noteworthy. In short, a modest relationship does exist, but that relationship is negative: households with more valuable accumulated assets tend to rely less on non-agricultural income. Conventional wisdom might suggest that households that have diversified their income streams away from agriculture are better suited to accumulate assets, but we do not find that to be the case at this baseline stage of data collection. Households that rely more exclusively on agricultural income streams tend to have more assets.

More specifically, we evaluated correlations between household asset value and three types of reliance on non-agricultural sources of income: “important” (indicating that non-agricultural income provides 10 percent or more of household revenue), “temporary” (non-agricultural income is derived from activities that take place only during the dry season or only during the rainy season), and “critical” (the household relies on non-agricultural income during times of stress). Correlation tests indicate that all three are negatively correlated with household asset value. The Pearson’s correlation coefficient for non-agricultural activities as an important source of revenue is -0.135 and is statistically significant at the 99-percent confidence level. The Pearson’s coefficient between household asset value and non-agricultural activities

as a temporary source of revenue is -0.47 and again is statistically significant at above the 95-percent confidence level. Finally, the Pearson’s correlation coefficient linking asset value and non-agricultural activities as a critical source of revenue is -0.69; that correlation is significant at the 99-percent confidence level. Substantively, the strength of those correlations is not particularly strong, but they all suggest that households in the RISE zone that currently rely on non-agricultural sources of income also tend to have less value in household assets, rather than more.

Correlation of HH assets’ value with the types of non-agricultural income (i.e. important/temporary/critical)

Table 6.16: Correlation between asset values and “Important” non-agricultural revenue

		Asset values (FCFA)	Important non-agricultural revenue
Asset values (FCFA)	Pearson Correlation	1	-.135
	Sig. (2-tailed)		.000
	N	2,438	2,438
Important non-agricultural revenue	Pearson Correlation	-.135	1
	Sig. (2-tailed)	.000	
	N	2,438	2,492

Table 6.17: Correlation between asset values and “Temporary” non-agricultural revenue

		Asset values (FCFA)	Temporary non-agricultural revenue
Asset values (FCFA)	Pearson Correlation	1	-.047
	Sig. (2-tailed)		.020
	N	2,438	2,438
Temporary non-agricultural revenue	Pearson Correlation	-.047	1
	Sig. (2-tailed)	.020	
	N	2,438	2,492

Table 6.18: Correlation between asset values and “Critical” non-agricultural revenues

		Asset values (FCFA)	Critical non- agricultural revenue
Asset values (FCFA)	Pearson Correlation	1	-.069
	Sig. (2-tailed)		.001
	N	2,438	2,438
Critical non-agricultural revenue	Pearson Correlation	-.069	1
	Sig. (2-tailed)	.001	
	N	2,438	2,492

7. WOMEN'S ROLES

A critical component of the RISE initiative is to contribute to the capacity of women to make choices at the household level. In so doing, the hope is that families will exploit better information and more opportunities, thereby building resilience and developing strategies to avert crisis. The key indicators that measure women's roles in the RISE baseline study are: 1) an adapted version of the Women's Empowerment in Agriculture Index, 2) the share of respondents stating the women and men should have equal access to social, political, and economic opportunities, and 3) the share of women who effectively participate in household decisions.

7.1 Women's Empowerment in Agriculture Index (Indicator 5)

This indicator is an adaptation of a commonplace tool that measures the opportunities that women in surveyed households have to gain control over their own lives through empowerment in the agricultural sector. The measure counts women as empowered if they achieve a threshold of autonomy and decision-making power, and it also accounts for the activities that other women achieve even if they do not reach the threshold of empowerment.

7.1.1. Methodology Note

The standard measure is comprised of a five dimension scale (5DE) that is worth 90 percent of the index and a Global Parity Index that contributes 10 percent of the score. Each of the five dimensions and their corresponding sub-dimensions are assigned a weight toward the total 5DE score.

By design, the RISE baseline study measures only two dimensions on the 5DE scale: Production and Resources. Production includes two sub-dimensions, input in production Decision Making and Autonomy in decisions. Resources includes three sub-dimensions: Ownership, Purchases, and Credit Access. Furthermore, the baseline survey gathered relevant data only from women, through the Gender Questionnaire, so it is not possible to calculate the Gender Parity Index (which requires a comparison of empowerment among women and men). Thus, rather than reserving 10 percent of the score for the GPI, the totality of the WEAI will be determined by the two dimensions of the 5DE scale.

The weights assigned to the Production and Resources domains using the standard WEAI are each 20 percent of the total. Because they are weighted equally, we maintain those relative weights, thus assigning new weights of 50 percent to each of

these domains (since they are the only two components of this revised version). The sub-components within each domain are weighted equally, which means that Decision Making and Autonomy are each worth 25 percent, and the three Resources sub-dimensions (Ownership, Purchases, and Credit Access) are each worth 16.7 percent. That is,

- i. Achievement in Production = .25
- ii. Achievement in Autonomy = .25
- iii. Achievement in Ownership = .167
- iv. Achievement in Purchases = .167
- v. Achievement in Credit Access = .167

The standard WEAI protocols indicate that a woman is empowered if she reaches achievement on 80 percent of the weighted indicators. Because this revised version has fewer indicators and thus constitutes a more blunt measure, we use a threshold of 75 percent. Thus, a surveyed woman must reach achievement on some of the five sub-dimensions, such that the weights assigned to those in which she is successful account for 75 percent of the total weighting.

If, for example, a woman reaches achievement in Production (.25), Ownership (.167), Purchases (.167), and Credit Access (.167), she will have reached achievement on $.25 + .167 + .167 + .167 = 0.75$, so she would be considered empowered.

Achievement in each of the domains is attained when the woman has at least adequate say over one activity, such as at least partial ownership of some livestock for the Ownership domain and at least shared control of a loan stream for the Credit Access domain.

To calculate Empowerment at the village or country level, the equation is:

$$WEAI = H_E + H_N(A_a)$$

Where H_E is the percentage of women who are empowered based on the above guidelines, H_N is the percentage of women who are not empowered, and A_a is the average level of achievement for those who did not attain empowerment status. The second term is important to include because those women may still have reached achievement on some sub-dimensions despite that achievement not reaching the 75 percent threshold from the weighted indicators, and those achievements should be counted.

Note that the standard measures for the autonomy sub-dimension were not included in this survey, but a separate question typically assigned to the Input in Decision Making sub-dimension asks how much freedom women have to decide. Thus, we revised the indicator to treat this question as a measure of the Autonomy sub-dimension. As a result, we also adjusted the Production achievement thresholds

from ≥ 2 down to ≥ 1 , because there are now fewer measures under the Decision Making and Autonomy sub-dimensions, as noted below.

Concerning the scoring, the maximum possible score that a village or area can receive on the WEAI is 100. Recall that the index captures the share of women who are classified as empowered plus the remaining share of unempowered women multiplied by their average level of achievement on certain dimensions (which leaves them short of fully empowered status but still counts as achievement). If all women in a village were classified as empowered, the index score would be 100 + 0; no score on the index can be higher than this. The score is reported as an index rather than a percentage because it adds together the achievements of both empowered and unempowered women. Nevertheless, the scale for the index ranges from 0 to 100.

Finally, note that only the female respondents who complete the Gender Questionnaire are included in this measure.

7.1.2. Findings: Women's Empowerment in Agriculture Index

Table 7.1 outlines the results. Overall, the WEAI score for the entire RISE zone is 68.0 (weighted) and 66.4 (unweighted). Disaggregating that figure, the table shows that, overall, 41.5% of the women in the survey reach the status of empowered (meaning they achieved at least 0.75 of the weighted values for the five domains). The 58.5% of women who did not attain empowerment status nevertheless reached achievement on 0.61 of the weighted values for the five dimensions. Thus, the proportion of empowered women plus the achievement of the remaining women results in the WEAI score of 68.0 (66.4 unweighted).

Disaggregating by High and Low exposure zones, the WEAI score is somewhat higher in the High stratum (70.3 vs. 64.2). Women's empowerment is somewhat higher in Niger than in Burkina Faso according to the WEAI index: women in Niger received a score of 72.0, compared to a score in Burkina Faso of 62.1. See Table 7.1.

Table 7.1: Women's Empowerment in Agriculture Index

	Achievement Average	Empowerment Status			Empowerment Status			WEAI Score
		No	Yes	Total	No	Yes	Total	
		Count	Count	Count	(%)	(%)	(%)	
HIGH	0.65	451	397	848	53.2	46.8	100.0	70.3
LOW	0.59	934	587	1521	61.4	38.6	100.0	64.2
Burkina	0.58	880	457	1337	65.8	34.2	100.0	62.1
Niger	0.66	505	527	1032	48.9	51.1	100.0	72.0
Total	0.61	1,385	984	2,369	58.5	41.5	100.0	68.0*

* Weighted

We can also disaggregate the Women's Empowerment in Agriculture Index by factor (Production, Resources) and by sub-factor (Decision-making, Autonomy, Ownership, Purchases, and Credit), in order to determine which has the biggest impact on women's empowerment in each stratum and each country.

Across the entire RISE zone, the WEAI score is 66.41 (out of a possible 100). Of that score of 66.41, 62.18% is attributable to the Production dimension and the remaining 37.82% is attributable to the Resource dimension (see Table 7.2). Further disaggregating the overall score by sub-factor, 29.99% of the index points are a function of contribution to decision-making, 32.19% of the total comes from autonomy in decision-making, 19.68% of the total is a result of ownership and control of assets, 18.16% is due to participation in purchases and sales of assets, and 5.15% of the total WEAI score is attributable to achievements in decision-making with regard to accessing and using credit.

Some differences do emerge across strata and across the two countries. In terms of differences across the portions of the RISE zone located in Burkina Faso and Niger, achievement in the Production factor accounts for 67.28% of the WEAI score for women in Burkina Faso but just 56.43% of the WEAI score for women in Niger; that difference is offset by correspondingly greater contributions from the Resource factor in Niger. The biggest sub-factor difference comes in terms of Autonomy (a part of the Production factor), which accounts for 36.2% of the WEAI score in Burkina Faso but only 27.68% of the WEAI score in Niger.

While the WEAI score is higher in the High exposure zone compared to the Low exposure zone (70.3 vs. 64.24), this cannot be attributed to relative differences in any particular factor or sub-factor. Production accounts for 61.52% of the WEAI score in the High zone and 62.60% of the score in the Low zone, with the Resource dimension accounting for the rest. The relative contributions of the five sub-factors under those two principal dimensions are similarly comparable across the High and Low exposure zones, as reported in Table 7.2.

Table 7.2: Share of WEAI Score Attributable to Each Sub-Factor, by Stratum and RISE zone of each country (unweighted)

	High	Low	Burkina	Niger	Total
WEAI Score	70.30	64.24	62.13	71.96	66.41
Production					
Decision making (%)	29.52	30.28	31.08	28.75	29.99
Autonomy (%)	32.00	32.32	36.20	27.68	32.19
Resources					
Ownership (%)	18.53	20.38	20.44	18.88	19.68
Purchases (%)	17.84	18.37	17.93	18.41	18.16
Credit (%)	5.65	4.86	4.74	5.60	5.15

7.2 Share Supporting Equal Access for Women (Indicator 19)

This indicator measures the degree to which participants agree that males and females should have equal access to social, political, and economic opportunities. Data are gathered from both men and women, allowing for comparisons across gender. Once the RISE initiatives are fully implemented, the data will also provide a measure of the positive impacts that those programs have on gender equality.

7.2.1. Methodology Note

Outcomes are based explicitly on a survey question that asks whether the respondent believes women and men should have equal access to social, political, and economic opportunities.

7.2.2. Findings: Equal Access for Women

Overall, just over half of respondents (household heads) believe that men and women should have equal access to social, economic and political opportunities (51.0% weighted; 50.8% unweighted). Those opinions vary by country, as over 61% of respondents in Niger believe that men and women should not have equal access to opportunities, while 40.53% in Burkina Faso share that opinion (see Table 7.3). There is no notable difference across the High and Low strata at this stage in the research.

Results differ by the gender of the respondent. Across the surveyed household heads in the RISE zone, men are equally divided in their opinions on equal access for women: 50 percent support equal access and 50 percent do not. Among women in the sample, 59.2% suggest that men and women should have equal access to social, political, and economic opportunities.

Table 7.3: Share of Respondents Advocating Equal Access for Men and Women

		% Advocating for Equal Access		
		No	Yes	Total
Whole Area		49.0*	51.0*	100
Stratum	HIGH	48.7	51.3	100
	LOW	49.4	50.6	100
Country	Burkina Faso	40.5	59.5	100
	Niger	61.3	38.7	100
Sex of HHH	Male	50.0	50.0	100
	Female	40.8	59.2	100
Marital Status of Household Head	Never got married	33.3	66.7	100
	Married, monog.	50.3	49.7	100
	Married, polyg.	49.0	51.0	100
	Cohabitation	64.3	35.7	100
	Divorced/separated	50.0	50.0	100
	Widow(er)	38.7	61.3	100

* Weighted

7.3 Women Reporting Effective Participation in Decisions (Indicator 20)

This indicator captures the degree to which women feel that they have opportunities to participate meaningfully in household decisions regarding production and income generation. Relative improvements over time in the High exposure zone would serve as evidence that women are gaining more autonomy and input as a result of the RISE programs.

7.3.1. Methodology Note

The data is drawn only from female respondents who participated in the Gender Questionnaire.

Women are evaluated in terms of their participation in five categories of household decisions: cash crops, livestock, non-agricultural activities, employment, and fishing.

If a respondent states that she participates to a medium or high degree in both the production decisions and the revenue decisions for at least one of the five categories, she is treated as participating effectively in household decisions.

7.3.2. Findings: Effective Female Participation

Among the surveyed female population in the overall RISE zone, 75.1% of women in the weighted sample and 73.2% in the unweighted sample participate effectively in household decisions (see Table 7.4). The share is slightly higher in Niger (80.5%) than in Burkina Faso (67.6%), and somewhat higher in the High stratum (78%) compared to the Low stratum (70.5%).

Table 7.4: Percentage of Women Participating Effectively in Household Decisions

		Effective Participation in HH Decisions			Effective Participation in HH Decisions		
		No	Yes	Total	No	Yes	Total
		Count	Count	Count	%	%	%
Whole Area		634	1, 731	2, 365	24.9*	75.1*	100
Stratum	HIGH	186	661	847	22.0	78.0	100
	LOW	448	1, 070	1, 518	29.5	70.5	100
Country	Burkina	433	903	1, 336	32.4	67.6	100
	Niger	201	828	1, 029	19.5	80.5	100

* Weighted

Disaggregating by type of decision-making (production vs. revenue), the data indicate that 78% of women participate effectively in production decisions and 75.3% participate effectively in revenue decisions. See Table 7.5 for more details.

Table 7.5. Share of Women with Effective Decision Making Power, by Activity Type (unweighted)

Effective Participation (%)	
Overall Mean	73.2
High Exposure Zone	78.0
Low Exposure Zone	70.5
<i>Production Decisions, Mean</i>	78.0
High Exposure Zone	82.4
Low Exposure Zone	75.6
<i>Income Decisions, Mean</i>	75.3
High Exposure Zone	80.8
Low Exposure Zone	72.3

Table 7.5 results are similar to those relating to actual participation in the use of revenues, because in terms of revenues, 75.3% of women actually participate. 80.8% of women in the High stratum are involved in the use of revenues against 72.3% in the Low stratum.

To add clarity to these findings, female respondents were presented with the five types of household activities outlined above (cash crops, livestock, non-agricultural activities, employment, and fishing), which together constitute the principal sources of household revenue in the region. They were asked whether they participate in the production decisions and the revenue decisions for each activity. The response options captured the degree of participation, from “none” to “highly engaged”. The findings indicate that approximately three-fourths of women in the region participate in both the production decisions and the revenue decisions to a medium or high degree for at least one of the five activities; this was the decision rule for coding. The results should not be taken as evidence of broad participation by women. What they do indicate, however, is that most women are fully engaged in household decisions regarding at least one particular activity. Perhaps the woman in a household oversees decisions regarding chickens and the sale of their eggs, while the male makes household decisions regarding employment, crops, and other activities. The measure thus captures depth of participation in at least one area; alternative decision rules could shed further light on the breadth of female participation.

8. CLEANLINESS AND SANITATION

To establish resilience, families in the Sahel must avoid costly sicknesses, absenteeism and reduced productivity, and the loss of key nutrients. Taking measures to ensure cleanliness and sanitation help in this regard. Especially during times of shock, households with improved strategies for cleanliness and sanitation face better odds of avoiding crisis. Here, we report on three indicators that measure household cleanliness and sanitation: the share of households with an improved drinking water source, the share of households with a soap-and-water handwashing station, and the share of households with an improved sanitation system.

8.1 Share of Households with Improved Drinking Source (Indicator 13)

This indicator measures the share of households in the sample that use an improved source of drinking water. Improved sources include: protected well, borehole/tube well, public fountain/tap, own indoor tap, shared outdoor tap and bottled water. These sources are protected from outside contamination, especially fecal matter.

8.1.1. Methodology Note

Figures are based on the primary source of drinking water in the household, as reported by the household head (rather than observed by the enumerators). Any of the above-mentioned sources of drinking water are considered to be improved. Instructions indicate that bottled water should be treated on a case-by-case basis, because its cleanliness depends on the conditions and treatment process of bottled water in specific countries. In these results, bottled water is not treated as an improved drinking water source because of the abundance of fraudulent packaging of water, particularly in plastic bags. At any rate, households that use bottled water as their primary source of drinking water are exceedingly rare in the region.

8.1.2. Findings: Improved Drinking Water

The data indicates that two-thirds of all households in the RISE zone do so (67% weighted; 66% unweighted). The most commonly cited improved source of drinking water used by surveyed households was boreholes/tube well (1,256 of the 2,492 households). There is no significant difference at this point across High and Low exposure zones, but there is a notable difference in improved drinking water sources

across Burkina Faso and Niger: 78.1% of household heads in Burkina Faso report using an improved drinking water source, compared to fewer than half (49.0%) of all respondents in Niger (see Table 8.1). We also note that improved sources of drinking water are most common among households in which the head of household is single or divorced rather than married. This may be attributable to the fact that those families are smaller, making the provision of improved sources of drinking water a more affordable possibility. Female heads of household are also slightly more likely to ensure improved sources of drinking water compared to their male counterparts (70.3% vs. 65.5%).

Table 8.1 : Share of Households Using an Improved Drinking Water Source

		Using an Improved Source of Drinking Water (%)		
		No	Yes	Total
Whole Area		33.0*	67.0*	100
Stratum	HIGH	31.4	68.6	100
	LOW	35.6	64.4	100
Country	Burkina Faso	21.9	78.1	100
	Niger	51.0	49.0	100
Sex of HHH	Male	34.5	65.5	100
	Female	29.7	70.3	100
Marital Status of Household Head	Never got married	18.5	81.5	100
	Married, monogamous	36.1	63.9	100
	Married, polygamous	31.6	68.4	100
	Cohabitation	46.7	53.3	100
	Divorced/separated	18.5	81.5	100
	Widow(er)	28.5	71.5	100

* Weighted

Households that do not use an improved source of drinking water may at least take steps to improve the quality of the water they consume. Such strategies include filtering the water through a cloth or adding water purification tablets. Data from the household-level survey indicates that, in fact, few households adopt such strategies: only 16.1% of households without an improved drinking water source take steps to improve the water quality. Among those who do, 72% use cloth filtration, and 9% use Aquatabs or other water purification tablets.

8.2 Share of Households with a Soap-and-Water Handwashing Station (Indicator 14)

A hand-washing station with soap and water is a critical tool for minimizing contamination of foods. Avoiding subsequent illnesses from contamination constitutes an important step in building resilience at the household level in areas susceptible to subsistence threats, making the addition of such hand-washing stations a practical step toward resilience in the RISE zone.

8.2.1. Methodology Note

The station must be observable to enumerators, not simply reported. Furthermore, the soap and water must be reachable from the station. The hand-washing station must also be “commonly used,” indicating that it is easily observable and indicated by study participants as the place where household members typically wash their hands. Water must be present and soap must be present.

8.2.2. Basic Handwashing Habits in the RISE Zone

Results show that handwashing is generally commonplace in the region:

- Before eating: Virtually all (99%) of respondents (household heads) report washing their hands before eating. The country-level figures are 100% in Burkina Faso and 98% in Niger.
- After eating: 93% wash their hands after eating (96% in Burkina Faso and 88% in Niger). 91% wash their hands in the High stratum and 94% do so in the Low stratum.
- Before praying: 59% of respondents report washing their hands before praying. By country, 54% of respondents do so in Burkina Faso and 66% in Niger. 44% do so in the High stratum against 67% in the Low stratum. 60% of male heads of households and 49% of female heads of household wash their hands before prayer.

On the other hand, a low percentage of household members surveyed wash their hands in the following situations:

- Before breastfeeding or feeding a child: 4% of respondents wash their hands before breastfeeding or feeding a child (2% in Burkina and 7% in Niger).

- Before cooking or food preparation: 10% of respondents (8% in Burkina Faso and 13% in Niger) report washing their hands before food preparation. 12% wash their hands in the High stratum against 8% who do so in the Low stratum.
- After using the toilet/latrine: 27% of respondents wash their hands after using the toilet/latrine. Figures differ by country, as 19% in Burkina Faso wash their hands against 39% who do so in Niger. 30% wash their hands in the High stratum against 26% who do so in the Low stratum.
- After cleaning or changing diapers of a child who has defecated: 7% of respondents report doing so. That figure does not differ by High/Low exposure zone, country, or sex of the head of household.
- When their hands are dirty: 46% of respondents report washing their hands simply when dirty. 38% in Burkina Faso do so, while 57% do so in Niger. 40% wash their hands in the High stratum against 49% who do so in the Low stratum.
- After cleaning the toilet or bedpan: 5% of respondents wash their hands in this case. Respondents in male-headed households are somewhat more likely (6%) than respondents in female-headed households.

8.2.3. Findings: Soap-and-Water Handwashing Station

Maintaining a dedicated station for handwashing with soap and water present is not a common practice in the RISE study area. The results show that only 7.9% of all respondents' households in the weighted sample maintained a soap-and-water handwashing station at the time of the survey (See Table 8.2). The unweighted mean is 6.8%. The figure is higher in the High exposure zone compared to the Low exposure zone (9.8% vs. 4.9%), though again we recommend against attributing this to the RISE programs at this baseline stage. Male-headed households seem to do noticeably better than female-headed households in this regard.

Table 8.2: Share of Households with a Hand Washing Station with Soap and Water

		Have a Hand Washing Station		
		No	Yes	Total
Whole Area		92.1*	7.9*	100
STRATUM	HIGH	90.2	9.8	100
	LOW	95.1	4.9	100
Country	Burkina Faso	92.1	7.9	100
	Niger	94.8	5.2	100
Sex of HHH	Male	92.9	7.1	100
	Female	96.8	3.2	100
Marital Status of Household Head	Never got married	92.6	7.4	100
	Married, monogamous	93.0	7.0	100
	Married, polygamous	93.2	6.8	100
	Cohabitation	86.7	13.3	100
	Divorced/separated	92.3	7.7	100
	Widow(er)	97.7	2.3	100

* Weighted

8.3 Share of Households Using an Improved Sanitation System (Indicator 15)

This indicator measures whether there is an improved sanitation system in the household, as defined by the Millennium Development Goals. The presence of a sanitary facility for human waste dramatically reduces contamination and exposure to illness, thereby helping to avert unnecessary expenditures and reduced productivity at the household level. In these ways, improved sanitation systems strengthen resilience.

8.3.1. Methodology Note

Improved sanitation systems include: pit flush toilet, flush toilet connected to a sealed septic system, flush toilet connected to a sewage system, pit toilet with slab, composting toilet and ventilated improved pit latrine. Data is reported by household heads.

8.3.2. Findings: Improved Sanitation Systems

Survey results indicate that 18.8% of weighted households in the RISE study area have improved sanitation systems (17.9% unweighted). Some difference is apparent across High and Low exposure zones, as 20.1% of households in the former versus 16.7% of households in the latter have such sanitary facilities. It is also worth noting that the share of households using improved sanitation systems is more than twice as high in Burkina Faso compared to Niger (23.9% vs. 9.6%). See Table 8.3.

Table 8.3: Percentage of Households Using Improved Sanitation`

		Use of Improved Sanitation (%)		
		No	Yes	Total
Whole Area		82.2*	18.8*	100
Stratum	HIGH	79.9	20.1	100
	LOW	83.3	16.7	100
Country	Burkina Faso	76.1	23.9	100
	Niger	90.4	9.6	100
Sex of HHH	Male	82.1	17.9	100
	Female	81.7	18.3	100
Marital Status of Household Head	Never got married	66.7	33.3	100
	Married, monogamous	83.3	16.7	100
	Married, polygamous	80.7	19.3	100
	Cohabitation	46.7	53.3	100
	Divorced/separated	77.8	22.2	100
	Widow(er)	83.1	16.9	100

* Weighted

CONCLUSION

The RISE baseline survey commissioned by TMG/SAREL and carried out by IMC in the RISE study area of Burkina Faso and Niger was successfully implemented. Like all similar surveys, difficulties and constraints were encountered during the data collection process, but both the sponsor and the implementing consulting firm and technical teams were able overcome them. Key to overcoming obstacles in the data collection was the constant collaboration between supervisors, team members and the data collection team. Proper field guidance, open communication lines, and regular support from local stakeholders all helped to ensure that a rigorous data collection exercise could succeed.

In particular, regular, in-depth collaboration between the SAREL staff, their partners at IMC, and local stakeholders, both within each country and also between Niamey and Ouagadougou, paid great dividends in ensuring minimal delays, trustworthy data, and an environment conducive to careful data collection and analysis.

Some of the findings from this baseline study reveal the striking deficit in resilience-related behaviors at the local level. In particular, efforts to ensure cleanliness and sanitation reveal much room for improvement, and the dietary and nutrition status of children in the RISE zone is also distressingly low. Other findings reveal somewhat puzzling differences across the Burkina Faso-Niger border, despite fairly comparable environments. In particular, the difference in prevalence of poverty and level of extreme poverty are striking. Finally, some measures, such as those capturing the contributions of women, offer what may be considered a fairly positive starting point for the RISE programs. Overall, however, the baseline data highlight the tenuous nature of household living situations in the RISE area, and they suggest many opportunities for impact from the RISE interventions.

APPENDIX A.

SAREL Methodological Guidelines for Measuring RISE Indicators

USAID's Resilience in the Sahel Enhanced (RISE) initiative aims to strengthen resilience by achieving reductions in a set of four topline indicators: shock-related needs, depth of poverty, severe hunger, and global acute malnutrition. SAREL is charged with conducting population-based surveys in Burkina Faso and Niger that provide baseline quantitative data related to the latter three of these broad goals.

Twenty specific RISE Indicators are used to track progress on the topline goals for which SAREL is responsible. This report presents guidelines for measuring those 20 RISE Indicators. Drawing from the REGIS-ER Monitoring and Evaluation Plan 2013 – 2018, the Ethiopia PRIME Impact Evaluation Report, the Niger Food For Peace (FFP) baseline analysis, and other USAID sources, the measurement strategies presented here are consistent with USAID methods employed elsewhere, which facilitates comparisons. The general approach is to link specific survey modules and questions—from the Village, Household, Gender, and Food Consumption questionnaires that were administered to participants in the field—to the Performance Indicator Reference Sheet (PIRS) for each RISE Indicator. The measurement and aggregation methods necessary for making those links differ for each indicator, and the measurement guidelines must in some cases be adapted to account for limitations in the data actually collected.

Below, the report provides detailed information to facilitate the measurement of each RISE Indicator. Under each indicator, definitions and clarifications are provided to the extent necessary. The report then describes the specific survey questions used to address the indicator, and the coding strategy to be used to account for whether or not for respondents or households meet the criterion in question, based on the data obtained from them through survey questions. Next, it provides instructions on how to aggregate and analyze the data from individual households in order to measure attainment of the RISE Indicator goals and to conduct the appropriate comparisons across countries, villages, and eventually high vs. low exposure areas. Those data will allow IMC and SAREL to develop a comprehensive set of descriptive baseline statistics for USAID. Finally, for each indicator, the report provides instructions for conducting multivariate analysis. This step will eventually be useful for determining the factors related to key outcomes of interest; it also highlights the control variables that will ultimately serve as matching factors for the propensity score matching of responses from high and low exposure villages. Notes on measurement innovations that result from data constraints are also reported.

Indicator 1: Depth of Poverty

Depth of Poverty measures the extent to which individuals are below the poverty line, if they are. It is calculated as the average difference between an individual's income and the poverty line of \$1.25/day, adjusted for Purchasing Power Parity (PPP) and inflation. Income is reported in Local Currency Units (LCUs), in this case FCFA, and is calculated based on household expenditures (see Indicator 4). Therefore, it may be easiest to calculate Indicator 4 prior to Indicator 1. Individuals whose income is above the poverty line should be given a value of zero.

Mathematically, depth of poverty is calculated based on the Poverty Gap Index (PGI), which is given by the formula:

$$PGI = \left(\frac{1}{N} \sum_{i=1}^N \left(\frac{z-y_i}{z}\right)\right) \times 100$$

Where N is the total number of individuals from the sampled households, z is the country's poverty line in LCUs, and y_i is the daily per capita expenditures of individual i .

To calculate the Depth of Poverty at the national level, use the following steps:

- 1) For each individual listed in the table from A.11 above (under Prevalence of Poverty), subtract the individual's daily expenditures (y_i) from the country's poverty line.
 - a. For Burkina Faso: $294.592 - (y_i)$
 - b. For Niger: $297.016 - (y_i)$
- 2) For each individual, divide the figure from (1) above by the country's poverty line. This calculation generates the difference between each individual's income and the respective country's poverty line.
 - a. So, for Burkina Faso: $(294.592 - (y_i))/294.592$
 - b. So, for Niger: $(297.016 - (y_i))/297.016$
- 3) For all individuals for whom the calculation in (2) results in a negative number, indicating per capita expenditures that are greater than the country's poverty line, replace the figure from (2) with zero. If the calculation from (2) results in a positive number, leave those figures unchanged.
- 4) Sum the outcomes from (3) over all of the individuals from the sampled households. This calculation results in one value for the country.
- 5) Divide the value obtained in (3) by the total number of individuals in the sample. Multiply this number by 100. The outcome represents the **Depth of Poverty**.

Descriptive Statistics to Calculate:

- Calculate separate values for each country.
- Disaggregate by Sex of the head of household.
- Disaggregate by the matrimonial situation of the head of household.
- After High and Low Exposure programs have been fully implemented in the field, we will eventually calculate Depth of Poverty based on High and Low Exposure zones.

Indicator 2: Prevalence of Households with Moderate or Severe Hunger

This indicator is based on the Household Hunger Scale (HHS). Respondents are asked about the frequency with which three events were experienced by household members in the last four weeks: 1) no food at all in the house; 2) went to bed hungry; and 3) went all day and night without eating. For each question, four responses are possible—never, rarely, sometimes, or often—which are then collapsed into the follow three responses: never (value=0), rarely or sometimes (value=1), and often (value=2). Values for the three questions are summed for each household, producing a HHS score ranging from 0 to 6.

The threshold for moderate or severe hunger is a score of 2 or more on the HHS. We do not make a further distinction between moderate and severe levels.

The indicator is calculated as follows:

- 1) First give a score for the first event: “No Food in Household.” Refer to Question 1607 on the Food Consumption Questionnaire. If the response is coded 2, give the respondent 0 points for this event. If the response is coded 8 or 9, mark the outcome as missing data. If the response to Q1607 is coded 1, proceed to Q1607a.
- 2) From Q1607a, if the response is coded 1 or 2, give the respondent 1 point for this event. If the response in Q1607a is coded 3, give the respondent 2 points for this event.
- 3) Then give a score for the second event: “Went to Bed Hungry.” Refer to Question 1608 on the Food Consumption Questionnaire. If the response is coded 2, give the respondent 0 points for this event. If the response is coded 8 or 9, mark the outcome as missing data. If the response to Q1608 is coded 1, proceed to Q1608a.
- 4) From Q1608a, if the response is coded 1 or 2, give the respondent 1 point for this event. If the response in Q1608a is coded 3, give the respondent 2 points for this event.
- 5) Finally, give a score for the third event: “Went All Day and Night Without Food.” Refer to Question 1609 on the Food Consumption Questionnaire. If the response is coded 2, give the respondent 0 points for this event. If the response is coded 8 or 9, mark the outcome as missing data. If the response to Q1609 is coded 1, proceed to Q1609a.
- 6) From Q1609a, if the response is coded 1 or 2, give the respondent 1 point for this event. If the response in Q1609a is coded 3, give the respondent 2 points for this event.

- 7) For each respondent, sum the points for the three events. If the total is equal to or greater than 2 points, code the household 1 for Moderate or Severe Hunger. If the total is less than 2, code the household 0 for this outcome.
- 8) The numerator is the total number of households with a score of 2 points or more. So, divide the number of households coded 1 in (7) by the total number of households in the sample for which HHS data was collected. This quotient is indicates the **Prevalence of Households with Moderate or Severe Hunger**.

Descriptive Statistics to Calculate:

- The indicator can be disaggregated by country. Separate the totals from (7) by country, and divide those figures by the total number of households in each country's sample (for which HHS data was collected).
- After the implementation of High and Low Exposure programs, the data can also be disaggregated by exposure type.
- Disaggregate by sex of the head of household.

Multivariate Analysis:

As a next step, multivariate regressions can be conducted to determine the factors that predict moderate to severe hunger at the household level.

- a) Methodological approach: Logit regression – likelihood that a household suffers from moderate to severe hunger.
- b) Dependent variable: Binary dependent variable coded 1 if the household suffers moderate or severe hunger, 0 otherwise.
- c) Unit of analysis: the household. Therefore, the number of observations should equate to the number of households in the sample, minus any missing data.
- d) Possible Independent variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)
 - iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, with one omitted
 - v. Distance from the chef lieu (Q205 on the Village Questionnaire)
 - vi. Education level of the head of household (Q206)
 - vii. Education level of the wife of head of household, if different (Q206)
 - viii. Daily Household Income (based on expenditures, from Indicator 4, No. 8).
 - ix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
 - x. Village fixed effects (1/0 variables for each village, omitting one).

Indicator 3a. Average Value of Household Assets

This measure captures the value of Consumptive, Productive, and Livestock assets in each household's possession, and averages the values across all households. The indicator can be reported in either LCU, in this case FCFA, or in US dollars.

We are unable to measure the value of assets in each household's possession with precision. For the Consumptive and Productive Assets, we have data on the number of items the household owns currently (Q501), the number it possessed one year ago (Q502), the number it possessed two years ago (Q503), whether or not one of the items was purchased during the last twelve months (Q504), and how much the household paid for all of those items purchased in the last twelve months (Q505). However, because we do not have information on how many of the items were purchased during the last twelve months, we cannot determine the precise average cost of the recently purchased items. We also do not have a baseline from which to assign monetary values to older assets, and we have no other data on their cost or how many were lost. The key shortcoming is that we do not have a precise way of determining the number of recently purchased items that contribute to the total spent on the items in Q505.

As an alternative, we simply add the total amounts spent on items during the last 12 months in each household. Thus, the value of assets per household will include only items purchased during the last 12 months, along with the value of livestock, for which we do have quantities currently owned and average price.

- 1) For Consumptive Assets: Sum the values listed in Question 505 (101 – 132) for each household. This figure represents the total amount spent by the household during the last 12 months.
- 2) For the Productive Assets: follow the same procedure. Sum the values listed in 505 (201 – 220), which represents the value of all productive assets purchased during the last 12 months.
- 3) For TLUs, multiply Q602.01 by Q603.01, which represents the number of cattle currently owned times the presumed sale price for one such cattle. Repeat this procedure for items 01 through 13.
- 4) Sum the products generated in (3). This represents the total value to the household of the livestock it owns.
- 5) For each household, sum (1) + (2) + (4). This represents the total value of assets for the household (using only purchases from the last 12 months).
- 6) To calculate the average value of household assets across the survey sample, sum the outcome from (5) across all households and divide this total by the number of households in the sample. This quotient represents the Average Value of Household Assets in LCUs.

- 7) Disaggregate the households by country and calculate the average value of household assets in Burkina Faso and in Niger.
- 8) Divide the values reported in (8) by the 2010 Purchasing Power Parity conversion rate to US dollars.
 - a. For Burkina Faso: 223.10 FCFA
 - b. For Niger: 229.23 FCFA
- 9) The outcome represents an approximation of the **Average Value of Household Assets**, measured in US dollar PPP terms.

Notes:

- 1) Agricultural production can also be included. To include the current stock of agricultural products, sum the values listed in Q706b (01-26) for each household. Add that amount to the sum calculated in (5) above to obtain the total value of assets including agriculture for each household. Then continue with step (6): sum the outcomes across all households and divide by the total number of households in the sample.
- 2) Despite the lack of precision in the household assets data, the measure will still be useful for tracking changes in purchases and asset ownership over time and in High and Low Exposure zones.

Descriptive Statistics to Calculate:

- The indicator should be disaggregated by country, particularly if the conversion to US dollars in PPP terms is made.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Indicator 3b: Asset Ownership

This indicator measures the assets owned by the household, related to consumption, production, and livestock. Because Indicator 3a focuses on the average value of such assets, here we focus on the accumulation of assets themselves. With the implementation of High and Low Exposure programs and subsequent data collection, the indicator will allow us to track increases in the economic well-being of program beneficiaries through their acquisition of new assets. From this baseline study, we can also calculate the change in asset ownership over the past year, to track the economic trajectory of households.

The approach we employ here includes consumptive assets, productive assets, and Total Livestock Units (TLUs). It does not include land, nor does it include the agricultural output from production. It focuses on the durable (and livestock) assets that households possess.

- 1) For Consumptive assets: From Question 501, sum the values in the column from Q501.101 to Q501.132 for each household. The outcome is the number of Total Consumptive Assets that the household currently owns.
- 2) From Question 502, sum the values in the column from Q502.101 to Q502.132. Subtract the Q502 total from the Q501 total for each household. This is the household's Annual Change in Consumptive Assets.
- 3) For Productive assets: From Question 501, sum the values in the column from Q501.201 to Q501.220 for each household. The outcome is the number of Total Productive Assets that the household currently owns.
- 4) From Question 502, sum the values in the column from Q502.201 to Q502.220. Subtract the Q502 total from the Q501 total for each household. This is the household's Annual Change in Productive Assets.
- 5) For Total Livestock Units (TLU): From Question 602, sum the values in the column from Q602.01 to Q602.13 for each household. The outcome is the number of TLUs that the household currently owns.
- 6) From Question 601, sum the values in the column from Q601.01 to Q601.13. Subtract the Q601 total from the Q602 total for each household. This is the household's Annual Change in TLU assets.
- 7) To determine total asset ownership for the household, sum the outcomes from (1), (3), and (5) above; these are the current asset totals for each of the three types of assets. This figure represents **Asset Ownership** at the household level.
- 8) To determine annual asset change for the household, sum the outcomes from (2), (4), and (6) above; these figures represent the change in each type of asset ownership over the past year. Outcomes may be negative for each type or for the

total annual change in assets. This figure represents **Annual Change in Asset Ownership** at the household level.

Descriptive Statistics to Calculate:

- The average number of assets owned per household can be calculated by summing the total across households and dividing by the number of households in the sample.
- Average ownership of each type of asset can then be determined by disaggregating the overall average into Consumptive, Productive, and Livestock categories.
- Average number of assets and annual changes in asset ownership can also be disaggregated by country.
- Eventually, we will disaggregate the data by High and Low Exposure zones.
- Because the data is collected at the household level, we are unable to disaggregate the outcomes based on the gender of the owner, or on any other individual-level characteristics.

Multivariate Analysis:

As a next step, multivariate regressions can be conducted to determine the factors that predict asset ownership at the household level.

- a) Methodological approach: OLS regression
- b) Dependent variable: the number of assets owned by a household.
 - a) Unit of analysis: the household. Therefore, the number of observations should equate to the number of households in the sample, minus any missing data.
 - b) Possible Independent variables:
 - a. Country (Q100) – a 1/0 variable
 - b. High/Low Exposure (later) – a 1/0 variable
 - c. Size of household (Q201)
 - d. Ethnicity of HH head (Q205) – 1/0 variables for each group, with one omitted
 - e. Distance from the chef lieu (Q205 on the Village Questionnaire)
 - f. Education level of the head of household (Q206)
 - g. Education level of the wife of head of household, if different (Q206)
 - h. Daily Household Income (based on expenditures, from Indicator 4, No. 8)
 - i. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
 - j. Village fixed effects (1/0 variables for each village, omitting one).

Indicator 4: Prevalence of Poverty

Prevalence of Poverty measures the percentage of people living on less than \$1.25 per day. The value is calculated in Local Currency Units (LCU), in this case FCFA; it is based on the Purchasing Power Parity conversion from US dollars and accounts for inflation. Because income measures are not appropriate for the region, the indicator relies instead on daily per capita consumption expenditures. The approach is based on USAID's Living Standards Measurement Survey (LSMS) methodology and the Feed the Future M&E Guidance Series Volume 8.

To calculate individual-level poverty, we will first calculate household poverty and then divide by the number of people in the household. The procedures follow:

- 1) Question 505 - Expenditures on Consumption
 - a. Add the value of all numbers in the column, from 505.101-505.132.
 - b. The data is recorded in a 12-month time frame. Therefore, divide the total by 365 to derive daily expenditures.
 - c. For any items for which the outcome is coded 8 or 9 (don't know or refused to answer), those responses should be replaced with the average amount spent on that item in the respondent's village. Thus, prior to calculating the individual expenditures, the village average must be calculated for each item (101-220). Make sure to exclude responses coded 8 or 9 when calculating that average. If there are few expenditures on a particular item (below five for the village), the average value can be calculated using the national average rather than the village average. The average value can then be inserted in place of the 8 or 9 in order to calculate the household's expenditures.
 - d. Any expenditure on an item that is 5 standard deviations or more above the mean—either village or national, according to the above guidelines—should be replaced by the mean, unless an investigation of the data point (through notes from the survey, for example), confirms a legitimate reason for the value entered. Therefore, calculate standard deviations for each item at the same time the mean is calculated (again making sure to exclude those coded 8 or 9). In each case that a value for one of the items 101-220 exceeds this threshold of 5 standard deviations above the mean, replace that value with the village (or national) mean.
 - e. There may be items for which the household did not spend any money over the past 12 months. That is fine; the zero expenditures do not affect the outcome, because the outcome is a sum of expenditures on the items. Be careful not to include the zero expenditures in the calculation of averages.
 - f. Record the outcome as Expenditures on Productive Assets. Each household will have one value here that is derived from the Q505 total.
- 2) Question E2.02 - Expenditures on Non-food Items I
 - a. Add the value of all numbers in the column, from E2.02 1101 – E2.02 1111.

- b. The data is recorded in a 7-day time frame. Therefore, divide the total by 7 to derive daily expenditures.
 - c. If, for any item, Question E2.01 is coded 1 (indicating that the household used or bought the item) but no value is given for the item in E2.02, insert the village average value for that item in place of the missing data (or the national average value if there are too few households in the village that list a value here).
 - d. Again, any expenditure on an item that is 5 standard deviations or more above the mean should be replaced by the mean.
 - e. Record the outcome as Expenditures on Non-food Items. Each household will have one value here that is derived from the QE2.02 total.
- 3) Question E3.02 - Expenditures on Non-food Items II
- a. Add the value of all numbers in the column, from E3.02 1201 – E3.02 1221.
 - b. The data is recorded in a 30-day time frame. Therefore, divide the total by 30 to derive daily expenditures.
 - c. If, for any item, Question E3.01 is coded 1 (indicating that the household used or bought the item) but no value is given for the item in E3.02, insert the village average value for that item in place of the missing data (or the national average value if there are too few households in the village that list a value here).
 - d. Again, any expenditure on an item that is 5 standard deviations or more above the mean should be replaced by the mean.
 - e. Record the outcome as Expenditures on Non-food Items II. Each household will have one value here that is derived from the QE3.02 total.
- 4) Question E4.02 - Expenditures on Non-food Items III
- a. Add the value of all numbers in the column, from E4.02 1301 – E4.02 1308.
 - b. The data is recorded in a 3-month time frame. Therefore, divide the total by 91 to derive daily expenditures.
 - c. If, for any item, Question E4.01 is coded 1 (indicating that the household used or bought the item) but no value is given for the item in E4.02, insert the village average value for that item in place of the missing data (or the national average value if there are too few households in the village that list a value here).
 - d. Again, any expenditure on an item that is 5 standard deviations or more above the mean should be replaced by the mean.
 - e. Record the outcome as Expenditures on Non-food Items III. Each household will have one value here that is derived from the QE4.02 total.
- 5) Question E5.02 - Expenditures on Non-food Items IV
- a. Add the value of all numbers in the column, from E5.02 1401 – E5.02 1417.
 - b. The data is recorded in a 12-month time frame. Therefore, divide the total by 365 to derive daily expenditures.
 - c. If, for any item, Question E5.01 is coded 1 (indicating that the household used or bought the item) but no value is given for the item in E5.02, insert the village average value for that item in place of the missing data (or the

national average value if there are too few households in the village that list a value here).

- d. Again, any expenditure on an item that is 5 standard deviations or more above the mean should be replaced by the mean.
 - e. Record the outcome as Expenditures on Non-food Items IV. Each household will have one value here that is derived from the QE5.02 total.
- 6) Question E1.04 - Food Expenditures
- a. Add the value of all numbers in the column, from E1.04 101 to E1.04 1015. Question E1.04 is located on the Food Consumption Questionnaire.
 - b. The data is recorded in a 7-day time frame. Therefore, divide the total by 7 to derive daily expenditures.
 - c. Again, any expenditure on an item that is 5 standard deviations or more above the mean should be replaced by the mean.
 - d. Record the outcome as Food Expenditures. Each household will have one value here that is derived from the QE1.04 total.
- 7) Calculate the value of Non-purchased Food consumed by the household:
- a. Multiply the quantity of non-purchased food consumed from QE1.05a by the average value of the item for each item 101 – 906 in the column.
 - i. To calculate the average value of each item, divide the amount listed in E1.04 by the quantity of the item that was purchased, listed in E1.03a. That is: $E1.04/E1.03a$ for each item 101 – 906.
 - ii. Make sure that the unit measure for purchased (E1.03b) and non-purchased items (E1.05b) is the same. If it is different, standardize these measures so that the values can be compared. For example, suppose the unit measure in E1.03b is coded as 08 (a 50kg sac, from the list of codes on the questionnaire), and the quantity purchased is reported in E1.03a as 4. Suppose the unit measure in E1.05b is coded as 09 (a 100kg sac), and the quantity consumed is reported in E1.05a as 3. In this case, the average value is calculated in terms of 50kg sacs. Therefore, the values in E1.05a and E1.05b should be converted into the same 50kg unit measure: 3 100kg sacs would be equivalent to 6 50kg sacs. If the unit measures differ for purchased and non-purchased items and one or both of the unit measures are less precise (such as a pile or a packet), please estimate the comparison.
 - iii. If a household has values for the non-purchased quantity and units in E1.05a and E1.05b but no value for the purchased item, please insert the village average for the value of the item. If the household has paid values for the item, please use those same paid values to calculate the unit value of non-purchased items.
 - b. Create a new column that reflects this output, the value of non-purchased consumption for each of the items 101 – 906. Add the value of all numbers in this new column. This total reflects the total value of the household's non-purchased food items.
 - c. The data is recorded in a 7-day time frame. Therefore, divide the total by 7 to derive daily expenditures.
 - d. Again, any expenditure on an item that is 5 standard deviations or more above the mean should be replaced by the mean.

- e. Record the outcome as Non-purchased Food. Each household will have one value here.
- 8) To calculate the value of lodging for the household, use the average value for the three regions of Burkina Faso (Central North, Sahel, and East), as calculated for the EICVM 2009-2010 survey. This value is 4,725FCFA per month, which comes to 157.50FCFA per day. Please use this value for all households in the RISE zone, as actual lodging expenditures were not collected through the survey.
- 9) Add the amounts for (1) to (7) above. This value represents the daily expenditures for the household in LCUs, in this case FCFA.
- 10) Divide (8) by the number of individuals in the household, from Question 200. This value represents the average daily expenditures for each person in the household.
- 11) Next, in order to compare individual-level daily expenditures to the poverty line, we need to determine the \$1.25/day threshold in LCUs, adjusted for Purchasing Power Parity and inflation. To do that, we use the following steps:
- Convert US Dollars into LCUs, using the 2010 Purchasing Power Parity (PPP) exchange rate as reported by the World Bank.⁷
 - For Burkina Faso, 1USD = 223.10 FCFA
 - For Niger, 1USD = 229.23 FCFA
 - Next, adjust that figure for inflation since 2010 using the Consumer Price Index (CPI) for the month closest to the data collection, with average monthly inflation in 2010 as the base factor (2010 CPI = 100). Those figures are obtained through the International Financial Statistics from the International Monetary Fund (IMF).⁸ Note that beginning in 2015, the IMF began using 2010 inflation as the base factor, instead of 2005. For that reason, the approach here differs slightly from the method used for the Niger Food For Peace baseline study conducted earlier.
 - For Burkina Faso, $CPI_{\text{March 2015}} = 105.636/100$
 - For Niger, $CPI_{\text{April 2015}} = 103.657/100$
 - Next, multiply the poverty line threshold of 1.25 by LCUs adjusted for 2010 PPP (a) and inflation (b).
 - For Burkina Faso: $1.25 * 223.10 * 105.636/100 = 294.592$ FCFA
 - For Niger: $1.25 * 229.23 * 103.657/100 = 297.016$ FCFA
 - The figures reported in (c) are the poverty line thresholds of \$1.25/day for Burkina Faso and Niger; it is against these figures that individual-level incomes are compared in order to determine the proportion living on less than \$1.25/day.
- 12) Create a table that lists each member of all households in the sample, along with the average daily expenditures for each person in that household, from (9) above.

⁷ Data available at <http://data.worldbank.org/indicator/PA.NUS.PRVT.PP>.

⁸ Data available at <http://elibrary-data.imf.org/DataReport.aspx?c=1449311&d=33061&e=169393>.

It is not necessary to list the individuals' names. The following is an example that includes two households, the first with four individuals and average daily per capita expenditures of 300 FCFA and the second with three individuals and average daily per capita expenditures of 250 FCFA:

Household	Individual	Daily Expenditures
01	01-01	300 FCFA
01	01-02	300 FCFA
01	01-03	300 FCFA
01	01-04	300 FCFA
02	02-01	250 FCFA
02	02-02	250 FCFA
02	02-03	250 FCFA

- 13) `Count the number of individuals from the table in (11) who have daily per capita expenditures below the poverty line from (10.c) above for each country. This will be the numerator.
- 14) Divide that number by the total number of individuals living in households included in the sample (the denominator, from (11) above). This quotient represents the ***Prevalence of Poverty***.

Descriptive Statistics to Calculate:

- The indicator should be calculated for the entire sample and also disaggregated by country. Use the number of individuals below the poverty line in Burkina Faso as the numerator and the total number of individuals from the sampled households in Burkina as the denominator. Repeat for Niger.
- Disaggregate by sex.
- Disaggregate by sex of the head of household.
- After the implementation of High and Low Exposure programs, the data can eventually be disaggregated by exposure type.

Multivariate Regression:

As a next step, multivariate regressions can be conducted to determine the factors that predict poverty at the household level.

- a) Methodological approach: Ordinary Least Squares (OLS) regression. Alternatively logit regression with binary dependent variable reflecting status of below the poverty line or not.
- b) Dependent variable: Average per capita expenditures at the household level (from (9) above). Alternatively, Status of below the poverty line or not, coded 1/0 (based on (12) above).
- c) Unit of analysis: the household. Therefore, the number of observations should equate to the number of households in the sample, minus any missing data.
- d) Possible Independent variables:

- i. Country (Q100) – a 1/0 variable
- ii. High/Low Exposure (later) – a 1/0 variable
- iii. Size of household (Q201)
- iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, with one omitted
- v. Distance from the chef lieu (Q205 on the Village Questionnaire)
- vi. Education level of the head of household (Q206)
- vii. Education level of the wife of head of household, if different (Q206)
- viii. Village fixed effects (1/0 variables for each village, omitting one)

Indicator 5: Women's Empowerment in Agriculture Index (WEAI)

This indicator builds on a commonplace tool that measures the opportunities that women in surveyed households have to gain control over their own lives through empowerment in the agricultural sector. The standard measure is comprised of a five dimension scale (5DE) that is worth 90 percent of the index and a Global Parity Index that contributes 10 percent of the score. Each of the five dimensions and their corresponding sub-dimensions are assigned a weight toward the total 5DE score.

By design, the REGIS-ER baseline study measures only two dimensions on the 5DE scale: Production and Resources. Production includes two sub-dimensions: input in production Decision Making, and Autonomy in decisions. Resources include three sub-dimensions: Ownership, Purchases, and Credit Access. Furthermore, the baseline survey gathered relevant data only from women, through the Gender Questionnaire, so it is not possible to calculate the Gender Parity Index (which requires a comparison of empowerment among women and men). Thus, rather than reserving 10 percent of the score for the GPI, the totality of the WEAI will be determined by the two dimensions of the 5DE scale.

The weights assigned to the Production and Resources domains using the standard WEAI are each 20 percent of the total. Because they are weighted equally, we maintain those relative weights, thus assigning new weights of 50 percent to each of these domains (since they are the only two components of this revised version). The sub-components within each domain are weighted equally, which means that Decision Making and Autonomy are each worth 25 percent, and the three Resources sub-dimensions (Ownership, Purchases, and Credit Access) are each worth 16.7 percent.

The standard WEAI protocols indicate that a woman is empowered if she reaches achievement on 80 percent of the weighted indicators. Because this revised version has fewer indicators and thus constitutes a more blunt measure, we use a threshold of 75 percent. Thus, a surveyed woman must reach achievement on some of the five sub-dimensions, such that the weights assigned to those in which she is successful accounts for 75 percent of the weighting.

To calculate Empowerment at the village or country level, the equation is:

$$WEAI = H_E + H_N(A_a)$$

Where H_E is the percentage of women who are empowered based on the above guidelines, H_N is the percentage of women who are not empowered, and A_a is the average level of achievement for those who did not attain empowerment status. The second term is important to include because those women may still have reached achievement on some sub-dimensions despite that achievement not reaching the 75

percent threshold from the weighted indicators, and those achievements should be counted.

Note that the standard measures for the autonomy sub-dimension were not included in this survey, but a separate question typically assigned to the Input in Decision Making sub-dimension asks how much freedom women have to decide. Thus, we revised the indicator to treat this question as a measure of the Autonomy sub-dimension. As a result, we also adjusted the Production achievement thresholds from ≥ 2 down to ≥ 1 , because there are now fewer measures under the Decision Making and Autonomy sub-dimensions, as noted below.

Finally, note that only the female respondents who complete the Gender Questionnaire are included in this measure.

- 1) For Decision Making, go to Question G2.02, A, B, C, and F
 - a. Count the number of responses from A, B, C, and F that are coded 3 (some), 4 (most), or 5 (all).
 - b. Note that D and E are not considered.
 - c. If the total coded 3, 4, or 5 from items A, B, C, and F is equal to or greater than 1, mark the respondent as reaching achievement for the Decision Making sub-dimension.

- 2) For Autonomy, go to Questions G4.01 and G4.02
 - a. Count the number of responses from G4.01 A – E that are coded 2 (indicating that the woman herself makes the decisions).
 - b. For the items not coded 2, go to G4.02 (on the freedom to make those decisions if she wants). Count the number of items from A – E coded 3 (medium) or 4 (high extent).
 - c. If the sum of those two counts, (a) + (b), is equal to or greater than 1, mark the respondent as reaching achievement for the Autonomy sub-dimension.

- 3) For Ownership, go to Question G303, A – N
 - a. Count the number of responses from A – N that are coded 1, 3, 5, 8, or 10 (indicating manners of female ownership of assets).
 - b. If the total from (a) is greater than 1, mark the respondent as reaching achievement for Ownership.
 - c. If the total from (a) is equal to 1, check whether the one positive outcome comes from items D (chickens), F (non-mechanized farming equipment), or K (long-lasting large items). If the one positive outcome does NOT come from one of these three items, mark the respondent as reaching achievement for Ownership.
 - d. If the total from (a) is zero, or if it is 1 and that 1 comes from D, F, or K, the respondent does not reach achievement for Ownership.

- 4) For Purchases, go to Question G301, A – G
 - a. If none of the items are coded 1 (for household ownership), the respondent does not reach achievement for Purchases.
 - b. If any of the items in G301, A – G are coded 1 for ownership, go to G304 – G307.
 - c. Count the number of items in G304, A-G that are coded 1, 3, 5, 8, or 10.

- d. Count the number of items in G305, A-G that are coded 1, 3, 5, 8, or 10.
 - e. Count the number of items in G306, A-G that are coded 1, 3, 5, 8, or 10.
 - f. Count the number of items in G307, A-G that are coded 1, 3, 5, 8, or 10.
 - g. Tally the number of items with one of those codes from (c), (d), (e), and (f).
 - h. If (g) is greater than 1, mark the respondent as reaching achievement for Purchases.
 - i. If (g) is equal to 1, check whether the positive outcome comes from D (chickens) or F (non-mechanized farm equipment). If the one positive outcome does NOT come from one of these two items, mark the respondent as reaching achievement for Purchases.
 - j. If the total from (g) is zero, or if it is 1 and that 1 comes from D or F, the respondent does not reach achievement for Purchases.
- 5) For Credit, go to Question G308, A – E.
- a. If none of the types of credit are coded 1, 2, or 3 (for various forms of receiving credit), the respondent does not reach achievement for Credit.
 - b. If any of the items A – E are coded 1, 2, or 3, go to G309 and G310.
 - c. Count the number of items in G309, A – E that are coded 1, 3, 5, 8, or 10.
 - d. Count the number of items in G310, A – E that are coded 1, 3, 5, 8, or 10.
 - e. Tally the number of items with one of those codes from (c) and (d).
 - f. If (e) is equal to or greater than 1, mark the respondent as reaching achievement for Credit.
 - g. If (e) is equal to zero, the respondent does not reach achievement for Credit.
- 6) For each respondent, calculate her Achievement Rate and her status as Empowered or Not Empowered.
- a. Refer to the weighted indicators:
 - i. Achievement in Production = .25
 - ii. Achievement in Autonomy = .25
 - iii. Achievement in Ownership = .167
 - iv. Achievement in Purchases = .167
 - v. Achievement in Credit Access = .167
 - b. For each respondent, sum the weights for each sub-dimension for which she reached achievement.
 - c. If the total share is equal to or greater than .75, code the respondent as Empowered.
 - i. For example, if a respondent reached achievement in Production, Ownership, Purchases, and Credit Access, her Achievement Rate is $.25 + .167 + .167 + .167 = .75$, so she is Empowered.
 - d. If the total share is less than .75, the respondent is Not Empowered.
 - i. As another example, if a respondent reached achievement in Autonomy, Purchases, and Credit Access, her Achievement Rate is $.25 + .167 + .167 = .584$, so she is not Empowered.
 - e. For each respondent, record both the Empowerment status and the Achievement Rate.
- 7) Calculate the village-level WEAI.
- a. Disaggregate the responses by village. For each village:

- b. Calculate the proportion that is Empowered (H_E): Divide the number of respondents who are Empowered by the total number of respondents (on the Gender Questionnaire) in the village.
- c. Calculate the proportion from the village that is Not Empowered (H_N): $1 - (H_E)$.
- d. Calculate the Achievement Average (A_a) for all respondents in the village who are not Empowered:
 - i. Sum all respondents' Achievement Rates that are $\leq .75$ in the village.
 - ii. Divide that sum by the number of respondents whose Achievement Rates are $\leq .75$ in the village.
- e. Add (b) + the product of (c)*(d). This figure represents the **Women's Empowerment in Agriculture Index (WEAI)** score for each village.

Descriptive Statistics to Calculate:

- Report the average WEAI across all villages by summing the village WEAI scores and dividing by the number of villages.
- Similarly, aggregate the village figures by country to report a WEAI for Burkina Faso and Niger.
- Eventually, WEAI can be compared across High and Low Exposure zones.

Notes:

- 1) The Gender questionnaires do not include demographic data for the respondent (who presumably differs from the respondent who completed the Household Questionnaire), so individual-level analyses are not possible. If household data from the Household Questionnaire can be matched to the Gender Questionnaire, it is possible to analyze the likelihood of a household's female respondent being Empowered, but only using household-level, and not individual-level, factors. See the regression description below.

Multivariate Analysis:

- a) Methodological approach: Logit regression
- b) Dependent variable: Empowered status (1/0 variable).
- d) Unit of analysis: the female respondent from the Gender Questionnaire. Therefore, the number of observations should equate to the number of households in the sample, minus any missing data.
- e) Possible Independent variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)
 - iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, with one omitted
 - v. Distance from the chef lieu (Q205 on the Village Questionnaire)
 - vi. Education level of the head of household (Q206)

- vii. Education level of the wife of head of household, if different (Q206)
- viii. Daily Household Income (based on expenditures, from Indicator 4, No. 8)
- ix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
- x. Village fixed effects (1/0 variables for each village, omitting one).

Indicator 6a: Number of Households with Income from Non-Agricultural Sources

This indicator tracks the livelihood activities of households to determine their sources of food and income over the past 12 months.

- 1) Refer to Question 1201, items 201 – 305. If any of the items are coded 1, give the household a positive value for non-agricultural income. If all of those items are coded 2, the household does not receive any non-agricultural income.
- 2) For any items in Q1201.201 – 305 that are coded 1, go to Q1203. If the response is $\geq .10$ (meaning that the proportion of income provided by that item is equal to or greater than 10 percent of the family's income or food) for any of the items, classify non-agricultural sources as an Important source of income for the household.
- 3) Then, for any items in Q1201.201 – 305 that are coded 1, go to Q1204. If all of the items coded 1 in Q1201.201 – 305 are coded as 1 (dry season only) or 2 (wet season only) in Q1204, classify non-agricultural sources as a Temporary source of income for the household.
- 4) Then, for any items in Q1201.201 – 305 that are coded 1, go to Q1205. If any of those items are coded 1 (meaning the household relies on the item during times of stress) in Q1205, classify non-agricultural sources as a Critical source of income for the household.
- 5) Count the total number of households in the sample that are classified as having some form of non-agricultural income, from (1) above. This represents the **Number of Households with Income from Non-Agricultural Sources**.
- 6) Divide (5) by the total number of households in the sample to obtain the **Proportion of Households with Income from Non-Agricultural Sources**.
- 7) Sum the percentages from column 1203 for agricultural sources and non-agricultural sources for each household. Then calculate the percentage of households for which the revenue coming from non-agricultural sources is at least 50 percent.

Descriptive Statistics to Calculate:

- Report both the number and the proportion of households for the total sample.
- Disaggregate the number and the proportion of households with non-agricultural income by country.
- Calculate the proportions of households in each country for which non-agricultural income is Important, Temporary, and Critical.
- Eventually, we can compare the number and proportion of households with non-agricultural income across High and Low Exposure zones.

Multivariate Analysis:

- a) Methodological approach: Logit regression
- b) Dependent variable: Household relies on some non-agricultural income (1/0 variable).
- c) Unit of analysis: the household. Therefore, the number of observations should equate to the number of households in the sample, minus any missing data.
- d) Possible Independent variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)
 - iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, with one omitted
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Education level of the head of household (Q206)
 - vii. Education level of the wife of head of household, if different (Q206)
 - viii. Daily Household Income (based on expenditures, from Indicator 4, No. 8)
 - ix. Village fixed effects (1/0 variables for each village, omitting one)

Indicator 7: Share of Targeted Communities with Evidence of Good Governance

Good governance at the community level includes the following components: having natural resource management plans, stakeholders involved in addressing climate change, land under natural resource management, a conflict management system, success in mediating disputes, and community development plans.

We have data that allows us to incorporate some of these elements: natural resource management plans, conflict management systems, successful dispute mediation, and community development plans.

- 1) Question 802 on the Village Questionnaire: if the outcome is coded 1 (for the presence of a natural resource management plan), give the village a score of 1. If the outcome is coded 2 (for no plan), give the village a score of 0.
- 2) Question 803 on the Village Questionnaire: if the outcome is coded 1 (for the presence of a conflict management system), give the village a score of 1. If the outcome is coded 2 (for no such system), give the village a score of 0.
- 3) Question 804 on the Village Questionnaire: if the outcome is coded 1, 2, or 3 (meaning that a committee is successful in mediating half or more of local disputes), give the village a score of 1. If the outcome is coded 4 or 5 (meaning few disputes are successfully mediated), give the village a score of 0.
- 4) Question 806 on the Village Questionnaire: if the outcome is coded 1 (for the presence of a community development plan), give the village a score of 1. If the outcome is coded 2 (for no such plan), give the village a score of 0.
- 5) If the sum of the scores from (1) + (2) + (3) + (4) is equal to or greater than 2, mark the village as having Good governance.
- 6) Divide the number of villages with Good governance from (5) by the total number of villages in the sample. This represents the **Proportion of Targeted Communities with Evidence of Good governance**.

Descriptive Statistics to Calculate:

- Disaggregate the village data by country.
- Eventually we can compare the data across High and Low Exposure zones.

Multivariate Analysis:

- a) Methodological approach: Logit regression
- b) Dependent variable: Village has good governance (1/0 variable).
- c) Unit of analysis: the village. Therefore, the number of observations should equate to the number of villages in the study, minus any missing data.

- d) Possible independent variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of village (Q201 from the Village Questionnaire)
 - iv. Predominant Ethnicity (Q203) – 1/0 variables for each group, omitting one)
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Presence of Formal State Representation (Q801: if coded 2 or 3, outcome = 1, Otherwise 0).
 - vii. Average Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8, averaged across all households sampled in the village).
- e) Alternative: use an ordered probit model where the dependent variable is a scaled variable from 0 – 3, indicating the number of the four elements explained above that are present in each village. The unit of analysis remains the village, and the independent variables remain the same.

Indicator 8: Share of Targeted Communities with Good Capacity to Manage Climate Shocks and Risks

This indicator measures the capacity of villages to adjust to climate shocks and risks either by coping with negative effects or taking advantage of positive climate change opportunities. For example, soil and water-saving strategies, improved cultural practices, and diversified income sources all help to reduce climate shocks at the village level. The data collection protocol is derived from the REGIS-ER PIRS related to Strengthened Government and Institutions.

The indicator is measured based on three criteria: Practices adopted to manage climate change, the level of application of those practices by community members, and the communities own assessment of the effectiveness of these adaptations for managing climate change.

- 1) Questions 604b1, 604b2, and 604b3 on the Village Questionnaire: For each of the three questions completed (indicating that the village has adopted 1-3 activities from the list in 603b), give the village a score of 2 if the question is coded 1 (indicating a **high** level of implementation), and a score of 1 if the question is coded 2 (indicating an **average** level of implementation). Otherwise, give the village a score of zero. (Maximum score of 2+2+2 = 6).
- 2) Question 605b: If the level of effectiveness is coded as 1 (**very effective**), give the village a score of 4. If the level of effectiveness is coded as 2 (**average**), give the village a score of 3. Otherwise, give the village a score of zero.
- 3) If the village achieves a total score of 7 (out of a maximum of 10), code the village as having a good capacity for managing shocks and climate risk.
- 4) Count the total number of villages having a good management capacity for shocks and climate risk. Divide that number by the total number of villages in the sample. The outcome represents the **Proportion of Communities with Good capacity to Manage Climate Shocks and Risk**.

Descriptive Statistics to Calculate:

- Disaggregate the village data by country.
- Eventually we can compare the data across High and Low Exposure zones.

Multivariate Analysis:

- a) Methodological approach: Logit regression
- b) Dependent variable: Village has good capacity to manage climate risk (1/0 variable).

- c) Unit of analysis: the village. Therefore, the number of observations should equate to the number of villages in the study, minus any missing data.
- d) Possible Independent variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of village (Q201 from the Village Questionnaire)
 - iv. Predominant Ethnicity (Q203) – 1/0 variables for each group, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Presence of Formal State Representation (Q801: if coded 2 or 3, outcome =1, Otherwise 0).
 - vii. Average Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8, averaged across all households sampled in the village).
- e) Alternative: use an ordered probit model where the dependent variable is a scaled variable from 0 – 2, where 0 = no activities or training, 1 = activities or training, and 2 = both activities and training. The unit of analysis remains the village, and the independent variables remain the same.

Indicator 9: Proportion of Individuals who engage with Local Power Structures

This indicator measures the extent to which residents have engaged successfully with local authorities in order to effect change over the past year.

- 1) Question 1411 from the Household Questionnaire: if the response is coded 1 (indicating that the respondent has successfully engaged with a local authority in order to effect change over the past year), mark the respondent as successfully engaging with local power structures.
- 2) If the response to Q1411 is coded 8 or 9 (don't know or refused to answer), code the respondent as missing data.
- 3) Divide the number of responses coded as successfully engaging with local power structures by the total number of households in the sample. Note that you should not divide by the total number of individuals within all sampled households, because only one individual per household took part in this questionnaire. The outcome represents the **Proportion of Individuals who Engage with Local Power Structures to Effect Change**.

Descriptive Statistics to Calculate:

- Disaggregate the data by country.
- Eventually we can compare the data across High and Low Exposure zones.

Multivariate Analysis:

- a) Methodological approach: Logit regression
- b) Dependent variable: Individual engages local power structures (1/0 variable).
- c) Unit of analysis: the individual. The number of total observations should equate to the number of households in the study, minus any missing data, because only one individual is sampled per household for this question.
- d) Possible Independent variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)
 - iv. Age of respondent (Q202)
 - v. Gender of respondent (Q203)
 - vi. Ethnicity of respondent (Q205) – 1/0 variables for each group, omitting one
 - vii. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - viii. Education level of respondent (Q206)
 - ix. Daily Household Income (based on expenditures, from Indicator 4, No. 8)

- x. Principal activity of respondent (Q210): 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
- xi. Village fixed effects (1/0 variables for each village, omitting one)

Indicator 10: Global Acute Malnutrition (GAM) in the Zone of Influence

This indicator measures the proportion of children under 5 years of age who are acutely malnourished, as defined by a weight-for-height Z score of two standard deviations below the global mean (which is calculated by the World Health Organization).

A different set of standards is used for children under the age of 2 and those aged 2 – 5 years, because the older children are measured in terms of standing height while the younger children are measured in terms of length.

- 1) Create a data set for all children from sampled households in the study, based on the data from the Food Consumption Questionnaire (which also includes the anthropometry of children). Then, for each child:
- 2) Note the age of the child (Q1707).
- 3) Note the Gender of the child (Q1704).
- 4) Note the weight of the child in kilograms (Q1711).
- 5) Note the length/height of the child in centimeters (Q1712).
- 6) Compare the weight-for-length/height to the WHO standard to identify children whose weight-for-length/height is two or more standard deviations below the global mean.
 - a. If the child is a boy aged 0 – 23 months, consult the Appendix A.1 table below. Find the length of the child, and note the corresponding weight that is two standard deviations below the mean (under the column SD2neg). If the child's weight is below the listed weight, mark the child as Malnourished.
 - b. If the child is a girl aged 0 – 23 months, consult the Appendix A.2 table below. Find the length of the child, and note the corresponding weight that is two standard deviations below the mean (under the column SD2neg). If the child's weight is below the listed weight, mark the child as Malnourished.
 - c. If the child is a boy aged 23 - 59 months, consult the Appendix A.3 table below. Find the length of the child, and note the corresponding weight that is two standard deviations below the mean (under the column SD2neg). If the child's weight is below the listed weight, mark the child as Malnourished.
 - d. If the child is a girl aged 23 - 59 months, consult the Appendix A.4 table below. Find the length of the child, and note the corresponding weight that is two standard deviations below the mean (under the column SD2neg). If the child's weight is below the listed weight, mark the child as Malnourished.

- 7) Divide the number of children listed as Malnourished by the total number of children in the sample. This represents the **Global Acute Malnutrition Rate**.

Descriptive Statistics to Calculate:

- Disaggregate the data by country to calculate GAM for Burkina Faso and for Niger.
- Disaggregate the data by gender to calculate GAM for boys and girls.
- Disaggregate by the sex of the head of household.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Multivariate Analysis:

- 1) Community level analysis
 - a. Method: OLS regression
 - b. Unit of Analysis: the village
 - c. Dependent Variable: the percentage of malnourished children in the village.
 - d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of village (Q201 from the Village Questionnaire)
 - iv. Predominant Ethnicity (Q203) – 1/0 variables for each, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Presence of Formal State Representation (Q801: if coded 2 or 3, outcome = 1, Otherwise 0).
 - vii. Average Daily Household Income (based on expenditures, from Indicator 4, Number 8, averaged across all households sampled in the village).
- 2) Household level Analysis
 - a. Method: Logit regression
 - b. Unit of Analysis: the household
 - c. Dependent Variable: presence of any malnourished children in the HH (1/0)
 - d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)
 - iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Education level of the head of household (Q206)
 - vii. Education level of the wife of head of household, if different (Q206)
 - viii. Daily Household Income (based on expenditures, from Indicator 4, No. 8)

- ix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
- x. Village fixed effects (1/0 variables for each village, omitting one)

Indicator 11: Prevalence of Stunted Children Under 5 Years of Age

This indicator measures the proportion of children under 5 years of age whose growth is moderately or severely stunted, as defined by a length/height Z score of at least two standard deviations below the global mean (which is calculated by the World Health Organization).

A different set of standards is used for children under the age of 2 and those aged 2 – 5 years, because the older children are measured in terms of standing height while the younger children are measured in terms of length.

- 1) Create a data set for all children from sampled households in the study, based on the data from the Food Consumption Questionnaire (which also includes the anthropometry of children). Then, for each child:
- 2) Note the age of the child (Q1707).
- 3) Note the Gender of the child (Q1704).
- 4) Note the length/height of the child in centimeters (Q1712).
- 5) Compare the length/height to the WHO standard to identify children whose length/height is two or more standard deviations below the global mean.
 - a. If the child is a boy, use the Boy columns in Appendix B. Find the age of the boy (in months) on the table, then note the corresponding length/height that is two standard deviations below the mean (under the column SD2neg). If the child's length/height is below the listed number in centimeters, mark the child as Stunted.
 - b. If the child is a girl, use the Girl columns in the same table, Appendix B. Find the age of the girl (in months) on the table, then note the corresponding length/height that is two standard deviations below the mean (under the column SD2neg). If the child's length/height is below the listed number in centimeters, mark the child as Stunted.
- 6) Divide the number of children listed as Stunted by the total number of children in the sample. This represents the **Prevalence of Stunted Children Under 5**.

Descriptive Statistics to Calculate:

- Disaggregate the data by country to calculate Stunted Prevalence for Burkina Faso and for Niger.
- Disaggregate the data by gender to calculate Stunted Prevalence for boys and girls.
- Disaggregate by the sex of the head of household.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Multivariate Analysis:

Community level analysis

- a. Method: OLS regression
- b. Unit of Analysis: the village
- c. Dependent Variable: the percentage of stunted children in the village.
- d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of village (Q201 from the Village Questionnaire)
 - iv. Predominant Ethnicity (Q203) – 1/0 variables for each group, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Presence of Formal State Representation (Q801: if coded 2 or 3, outcome = 1, Otherwise 0).
 - vii. Average Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8, averaged across all households sampled in the village).

Household level Analysis

- a. Method: Logit regression
- b. Unit of Analysis: the household
- c. Dependent Variable: presence of any stunted children in the HH (1/0)
- d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)
 - iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Education level of the head of household (Q206)
 - vii. Education level of the wife of head of household, if different (Q206)
 - viii. Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8).
 - ix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
 - x. Village fixed effects (1/0 variables for each village, omitting one)

Indicator 12: Prevalence of Underweight Children Under 5 Years of Age

This indicator measures the proportion of children under 5 years of age who suffer from acute or chronic malnutrition and are thus significantly underweight. Underweight status is defined by a weight Z score of two standard deviations below the global mean (which is calculated by the World Health Organization).

- 1) Create a data set for all children from sampled households in the study, based on the data from the Food Consumption Questionnaire (which also includes the anthropometry of children). Then, for each child:
- 2) Note the age of the child (Q1707).
- 3) Note the Gender of the child (Q1704).
- 4) Note the weight of the child in kilograms (Q1711).
- 5) Compare the weight to the WHO standard to identify children whose weight is two or more standard deviations below the global mean.
 - a. If the child is a boy, use the Boy columns in Appendix C. Find the age of the boy (in months) on the table, then note the corresponding weight that is two standard deviations below the mean (under the column SD2neg). If the child's weight is below the listed number in kilograms, mark the child as Underweight.
 - b. If the child is a girl, use the Girl columns in the same table, Appendix C. Find the age of the girl (in months) on the table, then note the corresponding weight that is two standard deviations below the mean (under the column SD2neg). If the child's weight is below the listed number in kilograms, mark the child as Underweight.
- 6) Divide the number of children listed as Underweight by the total number of children in the sample. This represents the **Prevalence of Underweight Children under 5**.

Descriptive Statistics to Calculate:

- Disaggregate the data by age groups: 6 – 23 months and 24 – 59 months.
- Disaggregate the data by country to calculate Underweight Prevalence for Burkina Faso and for Niger.
- Disaggregate the data by gender to calculate Underweight Prevalence for boys and girls.
- Disaggregate by the sex of the head of household.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Multivariate Analysis:

Community level analysis

- a. Method: OLS regression
- b. Unit of Analysis: the village
- c. Dependent Variable: the percentage of underweight children in the village.
- d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of village (Q201 from the Village Questionnaire)
 - iv. Predominant Ethnicity (Q203) – 1/0 variables for each group, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Presence of Formal State Representation (Q801: if coded 2 or 3, outcome = 1, Otherwise 0).
 - vii. Average Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8, averaged across all households sampled in the village).

Household level Analysis

- a. Method: Logit regression
- b. Unit of Analysis: the household
- c. Dependent Variable: presence of any underweight children in the HH (1/0)
- d. Independent Variables:
 - viii. Country (Q100) – a 1/0 variable
 - ix. High/Low Exposure (later) – a 1/0 variable
 - x. Size of household (Q201)
 - xi. Ethnicity of HH head (Q205) – 1/0 variables for each group, omitting one
 - xii. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - xiii. Education level of the head of household (Q206)
 - xiv. Education level of the wife of head of household, if different (Q206)
 - xv. Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8).
 - xvi. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
 - xvii. Village fixed effects (1/0 variables for each village, omitting one)

Indicator 13: Percentage of Households Using an Improved Drinking Water Source

This indicator measures the shared of households in the sample that use an improved source of drinking water. Improved sources include: piped water, a public tap, a protected well, a tube well, a protected spring, or rainwater harvesting. These sources are protected from outside contamination, especially fecal matter. Bottled water depends on the conditions of the bottled water in specific countries, defined in a case-by-case basis.

- 1) See Question 407 from the Household Questionnaire.
 - a. If the response is coded as 02 (protected well), 05 (tube well), 06 (public tap), 07 (indoor tap), 08 (shared outdoor tap), or 11 (bottled), mark the household as using an improved source of drinking water.
 - b. If the response is coded as 12 (other), evaluate the source on a case-by-case basis. Mark the household as using an improved source of drinking water if the listed source offers protection from outside contamination.
 - c. If the response is coded as any other number, the household's drinking water is considered "unimproved."
- 2) Tally the number of households in the sample that use an improved source of drinking water.
- 3) Divide the number of households using an improved source of drinking water by the total number of households in the sample. This represents the **Percentage of Households Using an Improved Drinking Water Source**.

Descriptive Statistics to Calculate:

- Present both the number (2) and the proportion (3).
- Disaggregate the data by country.
- Disaggregate by the type of sources listed in point 1.a.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Multivariate Analysis:

- a. Method: Logit regression
- b. Unit of Analysis: the household
- c. Dependent Variable: presence of an improved source of drinking water in the HH (1/0)
- d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)

- iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, omitting one
- v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
- vi. Education level of the head of household (Q206)
- vii. Education level of the wife of head of household, if different (Q206)
- viii. Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8).
- ix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
- x. Village fixed effects (1/0 variables for each village, omitting one)

Indicator 14: Percentage of Households with a Soap-and-Water Hand-washing Station

A hand-washing station with soap and water is a critical tool for minimizing contamination of foods. The station must be observable to enumerators, and the soap and water must be reachable from the station. Furthermore, the hand-washing station must be “commonly used,” indicating that it is easily observable and indicated by study participants as the place where household members typically wash their hands.

- 1) See Question 411 on the Household Questionnaire.
 - a. If the response is coded 2, 3, or 4 (indicating no observation of a hand-washing station), mark the household as NOT meeting the criteria.
 - b. If the response is coded 1 for observation of the hand-washing station, proceed to Q412.
- 2) Q412: If the response is coded 2 (indicating no water present), mark the household as NOT meeting the criteria. If the response is coded 1 (indicating water), proceed to Q413.
- 3) Q413: If the response is coded 3 or 4 (indicating no soap), mark the household as NOT meeting the criteria. If the response is coded 5 (for “other”), evaluate the response to determine if it is a form of soap. If the response is coded 1 or 2 (indicating various forms of soap), mark the household as meeting all criteria for the soap-and-water hand-washing station.
- 4) To summarize, (1) the hand washing station must be observed, (2) water must be present, and (3) soap must be present. If all three conditions are met, the household is recorded as having a soap-and-water hand-washing station.
- 5) Divide the number of households that meet the conditions for a soap-and-water hand-washing station by the total number of households in the sample. This represents the **Percentage of Households with a Soap-and-Water Hand-washing Station**.

Descriptive Statistics to Calculate:

- Disaggregate the data by country.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Multivariate Analysis:

- a. Method: Logit regression
- b. Dependent Variable: presence of a soap-and-water hand-washing station in the HH (1/0)
- c. Independent Variables:

Indicator 15: Percentage of Households Using an Improved Sanitation System

This indicator measures whether there is a sanitary facility in the household, as defined by the Millennium Development Goals. Sanitary facilities include: piped systems, septic systems, other flush facilities, pit latrines with a slab, composting toilets, and ventilated latrines.

- 1) See Question 406 on the Household Questionnaire.
 - a. If the response is coded 01 (pit flush toilet), 02 (flush toilet with septic), 03 (flush toilet with sewer), 04 (pit latrine with slab), 05 (composting toilet), or 06 (ventilated latrine), mark the household as using an improved sanitation system.
 - b. If the response is coded 07, 08, 09, 10, or 11, mark the household as NOT using an improved sanitation system.
- 2) Divide the number of households with an improved sanitation system by the total number of households in the sample. This represents the **Percentage of Households Using an Improved Sanitation System**.

Descriptive Statistics to Calculate:

- Disaggregate the data by country.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Multivariate Analysis:

- a. Method: Logit regression
- b. Unit of Analysis: the household
- c. Dependent Variable: presence of a soap-and-water station in the HH (1/0)
- d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)
 - iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Education level of the head of household (Q206)
 - vii. Education level of the wife of head of household, if different (Q206)
 - viii. Daily Household Income (based on expenditures, from Indicator 4, No. 8)
 - ix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
 - x. Village fixed effects (1/0 variables for each village, omitting one)

Indicator 16: Household Dietary Diversity

This indicator measures the mean number of food groups consumed by the household. It replaces the indicator for Women's Dietary Diversity, which is similar but which requires that the data relate exclusively to the food consumption of females.

The measure accounts for consumption in the previous 24 hours of a number of food groups, such as Grains, roots and tubers; Legumes and nuts; Dairy products (milk, yogurt, cheese); meats; eggs; and fruits and vegetables. There are 12 categories in total. The guidelines are based on the definition for dietary diversity developed by the Food and Agriculture Organization of the United Nations.

- 1) Go to Questions 1501 to 1512 on the Food Consumption Questionnaire.
 - a. If the response is coded as 1 (indicating that someone in the household consumed that food group in the last day), give the respondent a score of 1.
 - b. If the response is 2, 8, or 9 (indicating that no one consumed that food group or the respondent doesn't know/refuses to answer), give the respondent a score of 0.
- 2) Sum the scores from Q1501-Q1512. The total should be a number between 0 and 12, representing the number of food groups from the questionnaire that someone in the household has consumed during the last day. This represents the **Household Dietary Diversity Score**.
- 3) Add the household dietary diversity score for all households and divide by the number of households to determine the average household dietary diversity score across the zone.

Descriptive Statistics to Calculate:

- Calculate the mean Household Dietary Diversity Score by country.
- Calculate the mean Household Dietary Diversity Score by village.
- Eventually, we will calculate the mean Household Dietary Diversity Score based on High and Low Exposure zones.

Multivariate Analysis:

- a. Method: OLS regression
- b. Unit of Analysis: the household
- c. Dependent Variable: Household Dietary Diversity Score (0 – 12 value)
- d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable

- iii. Size of household (Q201)
 - iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Education level of the head of household (Q206)
 - vii. Education level of the wife of head of household, if different (Q206)
 - viii. Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8).
 - ix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
 - x. Village fixed effects (1/0 variables for each village, omitting one)
- e. Alternative: Logit regression, with the dependent variable as the consumption of any one particular food group, such as meat (1/0 variable).

Indicator 17: Prevalence of Children Receiving a Minimum Acceptable Diet (MAD)

The measure of Minimum Acceptable Diet pertains to children from 6 – 23 months. The measure accounts for both diversity—in terms of food groups consumed by the children—and frequency of meals. Standards differ based on age categories (for example, 6 – 8 month old children have different minimum feeding frequencies) and also for breastfed children versus those who are not breastfeeding.

- 1) Create a data set for all children from sampled households in the study, based on the data from the Food Consumption Questionnaire (which also includes the anthropometry of children). Then, for each child:
- 2) Note the age of the child from Question 1707. If the child is less than 6 months or older than 23 months, exclude the child from this analysis.
- 3) From Question 17b03, note if the child is breastfed (coded 1 on the questionnaire) or if there is no evidence that the child is breastfed (coded 2, 8, or 9).
- 4) Calculate the child's dietary diversity in the following manner:
 - a. If Q17b19 OR Q17b 21 are coded 1, give the child a score of 1 for consuming grains. If both Q17b19 and Q17b21 are coded 2, give the child a score of 0 for grains.
 - b. If Q17b29 is coded 1, give the child a score of 1 for consuming legumes. If Q17b29 is coded 2, give the child a score of 0 for legumes.
 - c. If Q17b30 is coded 1, give the child a score of 1 for consuming dairy. If Q17b30 is coded 2, give the child a score of 0 for dairy.
 - d. If Q17b25, Q17b26, OR Q17b28 are coded 1, give the child a score of 1 for consuming meats. If all three are coded 2, give the child a score of 0 for meats.
 - e. If Q17b27 is coded 1, give the child a score of 1 for consuming eggs. If Q17b27 is coded 2, give the child a score of 0 for eggs.
 - f. If Q17b22 is coded 1, give the child a score of 1 for consuming fruits and vegetables high in Vitamin A. If Q17b22 is coded 2, give the child a score of 0 for high vitamin A fruits and vegetables.
 - g. If Q17b24 is coded 1, give the child a score of 1 for consuming other fruits and vegetables. If it is coded 2, give the child a score of 0 for other fruits and vegetables.
 - h. For points a-g above, if the response is coded 8 or 9, treat the data as missing.
- 5) If the child is aged 6 – 8 months (from Q1707) AND is breastfed (from Q17b03), calculate the minimum acceptable diet in the following manner:
 - a. If the child has a score equal to or greater than 4 for dietary diversity in step (4) above, mark the child as having a diverse diet.

- b. Consult Q17b37, which records the number of times the child has eaten foods in the last 24 hours. If the number is equal to or greater than 2, mark the child as having a frequent diet.
 - c. If the child has a diversity score of at least 4 AND a diet frequency of at least 2 times per day, mark the child as meeting the standards for a Minimum Acceptable Diet. Children who do not meet both of these criteria are considered to not have a minimum acceptable diet.
- 6) If the child is aged 9 – 23 months (from Q1707) AND is breastfed (from Q17b03), calculate the minimum acceptable diet in the following manner:
- a. If the child has a score equal to or greater than 4 for dietary diversity in step (4) above, mark the child as having a diverse diet.
 - b. Consult Q17b37, which records the number of times the child has eaten foods in the last 24 hours. If the number is equal to or greater than 3, mark the child as having a frequent diet.
 - c. If the child has both a diverse diet AND a frequent diet, mark the child as meeting the standards for a Minimum Acceptable Diet. Children who do not meet both of these criteria are considered to not have a minimum acceptable diet.
 - d. Note that the difference in age groups is only that the older children should consume food at least 3 times per day, rather than 2.
- 7) If the child is NOT breastfed (coded 2, 8, or 9 from Q17b03), calculate the minimum acceptable diet in the following manner for all children aged 6 – 23 months:
- a. If the child has a score equal to or greater than 4 for dietary diversity in step (4) above, mark the child as having a diverse diet.
 - b. Sum the numbers from Q17b09 and Q17b11. These questions indicate consumption of milk products. If the total for the child is equal to or greater than 2, mark the child as receiving adequate milk intake.
 - c. Consult Q17b37, which records the number of times the child has eaten foods in the last 24 hours. If the number is equal to or greater than 2, mark the child as having a frequent diet.
 - d. If the child meet all three criteria—diverse diet, adequate milk, and frequent diet—mark the child as meeting the standards for a Minimum Acceptable Diet. Children who do not meet all of these criteria are considered to not have a minimum acceptable diet.
- 8) Sum the number of children (of all ages from 6 – 23 months) who meet the standards for a Minimum Acceptable Diet. Divide that number by the total number of children between 6 – 23 months in the sample (adding together all children in that age range from all households). The outcome represents the **Prevalence of Children 6 – 23 months Receiving a Minimum Acceptable Diet (MAD)**.

Descriptive Statistics to Calculate:

- Disaggregate the outcome by age (6 – 8 months and 9 – 23 months)

- Disaggregate the outcome by gender to calculate MAD prevalence for boys and girls
- Disaggregate the outcome by country
- Eventually we will disaggregate the data by High and Low Exposure zones.

Multivariate Analysis:

Household-level analysis

- a. Method: Logit regression
- b. Unit of Analysis: the household
- c. Dependent Variable: Presence of any child in the household who does NOT receive a Minimum Acceptable Diet (1/0 variable)
- d. Independent Variables:
 - i. Country (Q100) – a 1/0 variable
 - ii. High/Low Exposure (later) – a 1/0 variable
 - iii. Size of household (Q201)
 - iv. Ethnicity of HH head (Q205) – 1/0 variables for each group, omitting one
 - v. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - vi. Education level of the head of household (Q206)
 - vii. Education level of the wife of head of household, if different (Q206)
 - viii. Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8).
 - ix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
 - x. Village fixed effects (1/0 variables for each village, omitting one)
- e. Alternative: OLS regression, with the dependent variable as the proportion of children in the household who receive a Minimum Acceptable Diet.
- f. Note: If the household has no children from 6 – 23 months, that household is excluded from the analysis.

Indicator 18: Prevalence of Exclusive Breastfeeding of Children under 6 Months Old

Exclusive breastfeeding indicates that a child has received breastmilk but has not received any other food or liquid (aside from possible rehydration solutions).

- 1) Create a data set for all children from sampled households in the study, based on the data from the Food Consumption Questionnaire (which also includes the anthropometry of children). Then, for each child:
- 2) Note the age of the child from Question 1707. If the child is older than 6 months, exclude the child from this analysis.
- 3) From Question 17b03, note if the child is breastfed (coded 1 on the questionnaire). If yes, give the child a score of 1 for breastfed. If the child is coded 2, mark the child as not being breastfed. If the child is coded 8 or 9, code the data as missing.
- 4) For each child, if ANY of the following questions are coded 1, indicating that the child has consumed that item in the past 24 hours, mark the child as consuming Other Food Items:
 - a. Q17b07
 - b. Q17b08
 - c. Q17b10
 - d. Q17b12
 - e. Q17b13
 - f. Q17b14
 - g. Q17b16 – Q17b37 (all inclusive)
- 5) If ALL of the questions listed above in (4) are coded 2 (indicating that the child did not consume the item), mark the child as being Exclusively Breastfed. If any are coded 1, meaning the child consumed the item, the child is not exclusively breastfed.
- 6) If all of the questions listed above in (4) are coded 8 or 9 (indicating don't know or refused to answer), treat the data as missing. If at least one of the items is given a value of 1 or 2, treat the data as sufficiently present.
- 7) Divide the number of children aged 0 – 6 months who are Exclusively Breastfed by the total number of children aged 0 – 6 from all households in the sample. This represents the **Prevalence of Exclusive Breastfeeding of Children Under 6 Months Old**.

Descriptive Statistics to Calculate:

- Disaggregate the data based on gender

- Disaggregate the data based on country=
- Eventually we will disaggregate the data based on High and Low Exposure zones.

Multivariate Analysis:

Household-level analysis

- a. Method: Logit regression
- b. Unit of Analysis: the household
- c. Dependent Variable: Presence of an exclusively breastfeeding child (1/0 variable)
- d. Independent Variables:
 - xi. Country (Q100) – a 1/0 variable
 - xii. High/Low Exposure (later) – a 1/0 variable
 - xiii. Size of household (Q201)
 - xiv. Ethnicity of HH head (Q205) – 1/0 variables for each group, omitting one
 - xv. Distance from the chef-lieu (Q205 on the Village Questionnaire)
 - xvi. Education level of the head of household (Q206)
 - xvii. Education level of the wife of head of household, if different (Q206)
 - xviii. Daily Household Income (based on expenditures, as calculated under Indicator 4, Number 8).
 - xix. Principal activity of the head of household: 1/0 variables for Agriculture and Commerce (all other responses serve as the omitted category).
 - xx. Village fixed effects (1/0 variables for each village, omitting one)
- e. Alternative: OLS regression, with the dependent variable as the proportion of children aged 0 – 6 months who are Exclusively Breastfed.
- f. Note: If the household has no children from 0 – 6 months, that household is excluded from the analysis.

Indicator 19: Proportion Supporting Equal Access for Males and Females to Social, Economic, and Political Opportunities

This indicator measures the degree to which participants agree that males and females should have equal access to opportunities. Data are gathered from both men and women, allowing for comparisons across gender. Once initiatives, training, and outreach are put in place, the data will also provide a measure of the positive impacts that those programs have on gender equality.

Note: we will be able to measure the change in this proportion only after the midline study.

- 1) Go to Question 1410 on the Household Questionnaire, concerning equal access to social, economic, and political opportunities.
- 2) If the response is coded 1, mark the response as a positive outcome; the respondent thinks men and women should have equal access to those opportunities.
- 3) If the response is coded 2, mark the response as a negative outcome; the respondent does not think men and women should have equal access to those opportunities.
- 4) If the response is coded 8 or 9 (indicating doesn't know or refused to answer), mark the response as missing data.
- 5) Sum the number of responses coded as positive, and divide that number by the total number of responses in the sample. This represents the **Proportion Supporting Equal Access for Males and Females to Social, Economic, and Political Opportunities**.

Descriptive Statistics to Calculate:

- Disaggregate the data based on gender, in order to calculate the proportions of positive responses for both men and women.
- Disaggregate the data by country.
- Disaggregate the data based on age categories: calculate the proportion of positive responses among 18 – 30 year olds, 31 – 55 year olds, and those above 55 years old.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Multivariate Analysis:

- a) Methodological approach: Logit regression

b) Dependent variable: Individual supports equal access for males and females (1/0 variable).

c) Unit of analysis: the individual. The number of total observations should equate to the number of households in the study, minus any missing data, because only one individual is sampled per household for this question.

d) Possible Independent variables:

Country (Q100) – a 1/0 variable

High/Low Exposure (later) – a 1/0 variable

Size of household (Q201)

Age of respondent (Q202)

Gender of respondent (Q203)

Ethnicity of respondent (Q205) – 1/0 variables for each group, with one omitted

Distance from the chef-lieu (Q205 on the Village Questionnaire)

Education level of respondent (Q206)

Daily Household Income (based on expenditures, from Indicator 4, No.

8)

Principal activity of respondent (Q210): 1/0 variables for Agriculture and

Commerce (all other responses serve as the omitted category).

Indicator 20: Percentage of Women Reporting Effective Participation in Household Decision Making

This indicator aims to capture the degree to which women feel that they have opportunities to participate meaningfully in household decisions regarding production and income generation. The data is drawn only from female respondents who participated in the Gender Questionnaire.

- 1) Go to Module G2, Activity A (food production).
 - a. If G2.01a is coded 1 for Activity A, meaning that the household conducted this activity during the previous 12 months, AND
 - b. If G2.01 is coded 1, meaning the female respondent participated, AND
 - c. If G2.02 is coded 3, 4, or 5, meaning that the female respondent had at least some input, give the respondent a score of 1 for Effective Participation in Production Decisions for Activity A.
 - d. All three of those conditions must be met. If one is not, give the respondent a score of 0 for Effective Participation in Production Decisions for Activity A.

- 2) Stay with Module G2, Activity A to evaluate Income Decisions.
 - a. If G2.01a is coded 1, AND
 - b. If G2.01 is coded 1, AND
 - c. If G2.03 is coded 3, 4, or 5, meaning that the female respondent had at least some input in income decisions, give the respondent a score of 1 for Effective Participation in Income Decisions for Activity A.
 - d. All three of those conditions must be met. If one is not, give the respondent a score of 0 for Effective Participation in Income Decisions for Activity A.

- 3) Repeat steps (1) and (2) for Activities B (cash crops), C (livestock), D (non-agricultural activities), E (employment), and F (fishing).

- 4) For Activity A, if the respondent scored 1 both for Production Decisions (1.c) and Income Decisions (2.c), mark the respondent as Effectively Participating in Activity A.

- 5) Repeat step (4) for Activities B – F.

- 6) Classify respondents by degree of participation:
 - a. If the respondent effectively participates in at least one activity (either on Production or Income), mark the respondent as having Effective Participation.

- 7) Sum the number of respondents on the Gender Questionnaire who effectively participate in at least one activity (either on Production or Income) from (6.a)

above. Divide this number by the total number of respondents in the Gender Questionnaire sample. This represents the **Percentage of Women Reporting Effective Participation in Household Decision Making**.

Descriptive Statistics to Calculate:

- Disaggregate the data by country.
- In addition to the proportion reporting effective participation, also calculate the proportion of women that report participating the production decisions and the revenue decisions separately.
- Eventually we will disaggregate the data by High and Low Exposure zones.

Notes:

The Gender questionnaires do not include demographic data for the respondent (who presumably differs from the respondent who completed the Household Questionnaire), so individual-level analyses are not possible. If household data from the Household Questionnaire can be matched to the Gender Questionnaire, it is possible to analyze the likelihood of a household's female respondent having Effective Participation, but only using household-level, and not individual-level, factors.

APPENDIX B – WHO Height and Weight Standards

Length	SD2neg
109	14.983
109.1	15.013
109.2	15.043
109.3	15.073
109.4	15.104
109.5	15.135
109.6	15.165
109.7	15.196
109.8	15.227
109.9	15.258
110	15.289

Table WFH. Use for boys, 24-59m.

Height	SD2neg	Height	SD2neg	Height	SD2neg	Height	SD2neg
65	6.335	69	7.12	73	7.862	77	8.531
65.1	6.355	69.1	7.139	73.1	7.88	77.1	8.546
65.2	6.376	69.2	7.158	73.2	7.897	77.2	8.562
65.3	6.396	69.3	7.177	73.3	7.915	77.3	8.578
65.4	6.416	69.4	7.197	73.4	7.932	77.4	8.593
65.5	6.436	69.5	7.216	73.5	7.95	77.5	8.609
65.6	6.456	69.6	7.235	73.6	7.967	77.6	8.624
65.7	6.476	69.7	7.254	73.7	7.985	77.7	8.64
65.8	6.496	69.8	7.273	73.8	8.002	77.8	8.655
65.9	6.516	69.9	7.292	73.9	8.019	77.9	8.671
66	6.536	70	7.311	74	8.036	78	8.686
66.1	6.556	70.1	7.33	74.1	8.054	78.1	8.702
66.2	6.575	70.2	7.349	74.2	8.071	78.2	8.718
66.3	6.595	70.3	7.368	74.3	8.088	78.3	8.733
66.4	6.615	70.4	7.387	74.4	8.105	78.4	8.749
66.5	6.635	70.5	7.406	74.5	8.122	78.5	8.764
66.6	6.654	70.6	7.424	74.6	8.139	78.6	8.78
66.7	6.674	70.7	7.443	74.7	8.156	78.7	8.795
66.8	6.694	70.8	7.462	74.8	8.173	78.8	8.811
66.9	6.713	70.9	7.48	74.9	8.19	78.9	8.826
67	6.733	71	7.499	75	8.207	79	8.842
67.1	6.752	71.1	7.518	75.1	8.223	79.1	8.858
67.2	6.772	71.2	7.536	75.2	8.24	79.2	8.874
67.3	6.791	71.3	7.555	75.3	8.257	79.3	8.89
67.4	6.811	71.4	7.573	75.4	8.273	79.4	8.906
67.5	6.83	71.5	7.592	75.5	8.29	79.5	8.922
67.6	6.85	71.6	7.61	75.6	8.306	79.6	8.938
67.7	6.869	71.7	7.628	75.7	8.323	79.7	8.954
67.8	6.888	71.8	7.647	75.8	8.339	79.8	8.97
67.9	6.908	71.9	7.665	75.9	8.355	79.9	8.986
68	6.927	72	7.683	76	8.371	80	9.002
68.1	6.946	72.1	7.701	76.1	8.387	80.1	9.019
68.2	6.966	72.2	7.719	76.2	8.403	80.2	9.035
68.3	6.985	72.3	7.737	76.3	8.42	80.3	9.052
68.4	7.004	72.4	7.755	76.4	8.436	80.4	9.069
68.5	7.024	72.5	7.773	76.5	8.452	80.5	9.085
68.6	7.043	72.6	7.791	76.6	8.467	80.6	9.102
68.7	7.062	72.7	7.809	76.7	8.483	80.7	9.119
68.8	7.081	72.8	7.827	76.8	8.499	80.8	9.136
68.9	7.101	72.9	7.844	76.9	8.515	80.9	9.153

Height	SD2neg	Height	SD2neg	Height	SD2neg	Height	SD2neg
81	9.171	85	9.959	89	10.817	93	11.622
81.1	9.188	85.1	9.981	89.1	10.838	93.1	11.641
81.2	9.205	85.2	10.002	89.2	10.858	93.2	11.661
81.3	9.223	85.3	10.024	89.3	10.879	93.3	11.681
81.4	9.241	85.4	10.046	89.4	10.899	93.4	11.701
81.5	9.258	85.5	10.067	89.5	10.92	93.5	11.721
81.6	9.277	85.6	10.089	89.6	10.94	93.6	11.741
81.7	9.295	85.7	10.111	89.7	10.961	93.7	11.76
81.8	9.313	85.8	10.133	89.8	10.981	93.8	11.78
81.9	9.331	85.9	10.154	89.9	11.002	93.9	11.8
82	9.35	86	10.176	90	11.022	94	11.82
82.1	9.368	86.1	10.198	90.1	11.043	94.1	11.84
82.2	9.387	86.2	10.22	90.2	11.063	94.2	11.86
82.3	9.406	86.3	10.242	90.3	11.083	94.3	11.88
82.4	9.425	86.4	10.263	90.4	11.103	94.4	11.899
82.5	9.444	86.5	10.285	90.5	11.123	94.5	11.919
82.6	9.463	86.6	10.307	90.6	11.144	94.6	11.94
82.7	9.483	86.7	10.328	90.7	11.164	94.7	11.96
82.8	9.503	86.8	10.35	90.8	11.184	94.8	11.98
82.9	9.522	86.9	10.372	90.9	11.204	94.9	12
83	9.542	87	10.393	91	11.224	95	12.02
83.1	9.562	87.1	10.415	91.1	11.244	95.1	12.04
83.2	9.582	87.2	10.436	91.2	11.264	95.2	12.06
83.3	9.602	87.3	10.458	91.3	11.284	95.3	12.08
83.4	9.622	87.4	10.479	91.4	11.304	95.4	12.1
83.5	9.643	87.5	10.501	91.5	11.324	95.5	12.121
83.6	9.663	87.6	10.522	91.6	11.344	95.6	12.141
83.7	9.684	87.7	10.544	91.7	11.364	95.7	12.161
83.8	9.705	87.8	10.565	91.8	11.384	95.8	12.182
83.9	9.725	87.9	10.586	91.9	11.404	95.9	12.202
84	9.746	88	10.607	92	11.424	96	12.223
84.1	9.767	88.1	10.629	92.1	11.444	96.1	12.243
84.2	9.788	88.2	10.65	92.2	11.463	96.2	12.264
84.3	9.809	88.3	10.671	92.3	11.483	96.3	12.284
84.4	9.831	88.4	10.692	92.4	11.503	96.4	12.305
84.5	9.852	88.5	10.713	92.5	11.523	96.5	12.326
84.6	9.873	88.6	10.734	92.6	11.543	96.6	12.347
84.7	9.895	88.7	10.755	92.7	11.563	96.7	12.367
84.8	9.916	88.8	10.775	92.8	11.582	96.8	12.388
84.9	9.938	88.9	10.796	92.9	11.602	96.9	12.409

Height	SD2neg	Height	SD2neg	Height	SD2neg	Height	SD2neg
97	12.43	101	13.317	105	14.283	109	15.332
97.1	12.451	101.1	13.34	105.1	14.309	109.1	15.359
97.2	12.472	101.2	13.363	105.2	14.334	109.2	15.386
97.3	12.494	101.3	13.386	105.3	14.359	109.3	15.414
97.4	12.515	101.4	13.41	105.4	14.384	109.4	15.442
97.5	12.536	101.5	13.433	105.5	14.41	109.5	15.47
97.6	12.558	101.6	13.457	105.6	14.435	109.6	15.497
97.7	12.579	101.7	13.48	105.7	14.461	109.7	15.525
97.8	12.6	101.8	13.504	105.8	14.486	109.8	15.553
97.9	12.622	101.9	13.528	105.9	14.512	109.9	15.581
98	12.644	102	13.551	106	14.537	110	15.609
98.1	12.665	102.1	13.575	106.1	14.563	110.1	15.637
98.2	12.687	102.2	13.599	106.2	14.589	110.2	15.666
98.3	12.709	102.3	13.623	106.3	14.615	110.3	15.694
98.4	12.731	102.4	13.646	106.4	14.641	110.4	15.722
98.5	12.752	102.5	13.67	106.5	14.667	110.5	15.751
98.6	12.774	102.6	13.694	106.6	14.692	110.6	15.779
98.7	12.796	102.7	13.718	106.7	14.718	110.7	15.808
98.8	12.818	102.8	13.742	106.8	14.744	110.8	15.836
98.9	12.84	102.9	13.766	106.9	14.77	110.9	15.865
99	12.863	103	13.791	107	14.797	111	15.894
99.1	12.885	103.1	13.815	107.1	14.823	111.1	15.922
99.2	12.907	103.2	13.839	107.2	14.849	111.2	15.951
99.3	12.929	103.3	13.863	107.3	14.875	111.3	15.98
99.4	12.952	103.4	13.888	107.4	14.902	111.4	16.009
99.5	12.974	103.5	13.912	107.5	14.928	111.5	16.038
99.6	12.997	103.6	13.937	107.6	14.954	111.6	16.067
99.7	13.019	103.7	13.961	107.7	14.981	111.7	16.096
99.8	13.042	103.8	13.985	107.8	15.008	111.8	16.126
99.9	13.065	103.9	14.01	107.9	15.034	111.9	16.155
100	13.087	104	14.035	108	15.061	112	16.184
100.1	13.11	104.1	14.059	108.1	15.088	112.1	16.213
100.2	13.133	104.2	14.084	108.2	15.115	112.2	16.243
100.3	13.155	104.3	14.109	108.3	15.142	112.3	16.272
100.4	13.178	104.4	14.134	108.4	15.168	112.4	16.302
100.5	13.201	104.5	14.159	108.5	15.195	112.5	16.331
100.6	13.224	104.6	14.183	108.6	15.223	112.6	16.361
100.7	13.247	104.7	14.209	108.7	15.25	112.7	16.39
100.8	13.27	104.8	14.233	108.8	15.277	112.8	16.42
100.9	13.293	104.9	14.258	108.9	15.304	112.9	16.45

Height	SD2neg	Height	SD2neg
113	16.479	117	17.697
113.1	16.509	117.1	17.728
113.2	16.539	117.2	17.759
113.3	16.569	117.3	17.79
113.4	16.599	117.4	17.821
113.5	16.629	117.5	17.852
113.6	16.659	117.6	17.883
113.7	16.689	117.7	17.913
113.8	16.719	117.8	17.944
113.9	16.749	117.9	17.975
114	16.779	118	18.006
114.1	16.809	118.1	18.037
114.2	16.84	118.2	18.068
114.3	16.87	118.3	18.099
114.4	16.9	118.4	18.13
114.5	16.931	118.5	18.161
114.6	16.961	118.6	18.192
114.7	16.991	118.7	18.223
114.8	17.022	118.8	18.254
114.9	17.052	118.9	18.285
115	17.083	119	18.316
115.1	17.113	119.1	18.347
115.2	17.144	119.2	18.377
115.3	17.175	119.3	18.408
115.4	17.205	119.4	18.439
115.5	17.236	119.5	18.47
115.6	17.266	119.6	18.501
115.7	17.297	119.7	18.532
115.8	17.328	119.8	18.563
115.9	17.359	119.9	18.593
116	17.389	120	18.624
116.1	17.42		
116.2	17.451		
116.3	17.481		
116.4	17.512		
116.5	17.543		
116.6	17.574		
116.7	17.605		
116.8	17.635		
116.9	17.666		

Note: data from http://www.who.int/childgrowth/standards/weight_for_height/en/

Table WFH. Use for girls, 24-59m.

Height	SD2neg	Height	SD2neg	Height	SD2neg	Height	SD2neg
65	6.071	69	6.798	73	7.477	77	8.109
65.1	6.09	69.1	6.815	73.1	7.493	77.1	8.125
65.2	6.109	69.2	6.833	73.2	7.51	77.2	8.141
65.3	6.128	69.3	6.85	73.3	7.526	77.3	8.157
65.4	6.146	69.4	6.868	73.4	7.542	77.4	8.173
65.5	6.165	69.5	6.885	73.5	7.559	77.5	8.189
65.6	6.184	69.6	6.902	73.6	7.575	77.6	8.205
65.7	6.203	69.7	6.919	73.7	7.591	77.7	8.221
65.8	6.221	69.8	6.937	73.8	7.607	77.8	8.237
65.9	6.24	69.9	6.954	73.9	7.623	77.9	8.253
66	6.259	70	6.971	74	7.639	78	8.27
66.1	6.277	70.1	6.988	74.1	7.655	78.1	8.286
66.2	6.296	70.2	7.006	74.2	7.671	78.2	8.302
66.3	6.314	70.3	7.023	74.3	7.687	78.3	8.319
66.4	6.333	70.4	7.04	74.4	7.702	78.4	8.335
66.5	6.351	70.5	7.057	74.5	7.718	78.5	8.352
66.6	6.369	70.6	7.074	74.6	7.734	78.6	8.368
66.7	6.388	70.7	7.091	74.7	7.75	78.7	8.385
66.8	6.406	70.8	7.108	74.8	7.766	78.8	8.402
66.9	6.424	70.9	7.125	74.9	7.781	78.9	8.419
67	6.442	71	7.142	75	7.797	79	8.436
67.1	6.46	71.1	7.159	75.1	7.812	79.1	8.453
67.2	6.479	71.2	7.176	75.2	7.828	79.2	8.47
67.3	6.497	71.3	7.193	75.3	7.844	79.3	8.487
67.4	6.515	71.4	7.21	75.4	7.859	79.4	8.504
67.5	6.533	71.5	7.227	75.5	7.875	79.5	8.522
67.6	6.55	71.6	7.244	75.6	7.89	79.6	8.539
67.7	6.568	71.7	7.261	75.7	7.906	79.7	8.556
67.8	6.586	71.8	7.278	75.8	7.922	79.8	8.574
67.9	6.604	71.9	7.294	75.9	7.937	79.9	8.592
68	6.622	72	7.311	76	7.953	80	8.609
68.1	6.64	72.1	7.328	76.1	7.968	80.1	8.627
68.2	6.657	72.2	7.345	76.2	7.984	80.2	8.645
68.3	6.675	72.3	7.361	76.3	7.999	80.3	8.663
68.4	6.693	72.4	7.378	76.4	8.015	80.4	8.681
68.5	6.71	72.5	7.395	76.5	8.031	80.5	8.7
68.6	6.728	72.6	7.411	76.6	8.046	80.6	8.718
68.7	6.745	72.7	7.428	76.7	8.062	80.7	8.736
68.8	6.763	72.8	7.444	76.8	8.078	80.8	8.755
68.9	6.781	72.9	7.461	76.9	8.094	80.9	8.773

Height	SD2neg	Height	SD2neg	Height	SD2neg	Height	SD2neg
81	8.792	85	9.592	89	10.436	93	11.262
81.1	8.81	85.1	9.613	89.1	10.457	93.1	11.283
81.2	8.829	85.2	9.634	89.2	10.477	93.2	11.304
81.3	8.848	85.3	9.655	89.3	10.498	93.3	11.324
81.4	8.867	85.4	9.676	89.4	10.519	93.4	11.345
81.5	8.886	85.5	9.697	89.5	10.54	93.5	11.366
81.6	8.905	85.6	9.719	89.6	10.561	93.6	11.386
81.7	8.924	85.7	9.74	89.7	10.581	93.7	11.407
81.8	8.943	85.8	9.761	89.8	10.602	93.8	11.428
81.9	8.962	85.9	9.782	89.9	10.623	93.9	11.448
82	8.982	86	9.803	90	10.644	94	11.469
82.1	9.001	86.1	9.825	90.1	10.664	94.1	11.49
82.2	9.021	86.2	9.846	90.2	10.685	94.2	11.511
82.3	9.04	86.3	9.867	90.3	10.706	94.3	11.532
82.4	9.06	86.4	9.888	90.4	10.726	94.4	11.552
82.5	9.08	86.5	9.91	90.5	10.747	94.5	11.573
82.6	9.1	86.6	9.931	90.6	10.768	94.6	11.594
82.7	9.119	86.7	9.952	90.7	10.788	94.7	11.615
82.8	9.139	86.8	9.973	90.8	10.809	94.8	11.636
82.9	9.159	86.9	9.994	90.9	10.83	94.9	11.657
83	9.179	87	10.015	91	10.85	95	11.678
83.1	9.199	87.1	10.037	91.1	10.871	95.1	11.699
83.2	9.22	87.2	10.058	91.2	10.892	95.2	11.719
83.3	9.24	87.3	10.079	91.3	10.912	95.3	11.74
83.4	9.26	87.4	10.1	91.4	10.933	95.4	11.761
83.5	9.281	87.5	10.121	91.5	10.953	95.5	11.783
83.6	9.301	87.6	10.142	91.6	10.974	95.6	11.804
83.7	9.321	87.7	10.163	91.7	10.995	95.7	11.825
83.8	9.342	87.8	10.184	91.8	11.015	95.8	11.846
83.9	9.363	87.9	10.205	91.9	11.036	95.9	11.867
84	9.383	88	10.226	92	11.056	96	11.888
84.1	9.404	88.1	10.247	92.1	11.077	96.1	11.909
84.2	9.425	88.2	10.268	92.2	11.098	96.2	11.93
84.3	9.445	88.3	10.289	92.3	11.118	96.3	11.952
84.4	9.466	88.4	10.31	92.4	11.139	96.4	11.973
84.5	9.487	88.5	10.331	92.5	11.159	96.5	11.994
84.6	9.508	88.6	10.352	92.6	11.18	96.6	12.015
84.7	9.529	88.7	10.373	92.7	11.201	96.7	12.037
84.8	9.55	88.8	10.394	92.8	11.221	96.8	12.058
84.9	9.571	88.9	10.415	92.9	11.242	96.9	12.08

Height	SD2neg	Height	SD2neg	Height	SD2neg	Height	SD2neg
97	12.101	101	13.008	105	14.035	109	15.196
97.1	12.123	101.1	13.033	105.1	14.063	109.1	15.227
97.2	12.144	101.2	13.057	105.2	14.09	109.2	15.258
97.3	12.166	101.3	13.081	105.3	14.117	109.3	15.289
97.4	12.188	101.4	13.105	105.4	14.145	109.4	15.32
97.5	12.209	101.5	13.13	105.5	14.173	109.5	15.351
97.6	12.231	101.6	13.155	105.6	14.2	109.6	15.382
97.7	12.253	101.7	13.179	105.7	14.228	109.7	15.413
97.8	12.275	101.8	13.204	105.8	14.256	109.8	15.445
97.9	12.297	101.9	13.229	105.9	14.284	109.9	15.476
98	12.319	102	13.253	106	14.312	110	15.508
98.1	12.341	102.1	13.278	106.1	14.34	110.1	15.539
98.2	12.363	102.2	13.303	106.2	14.368	110.2	15.571
98.3	12.385	102.3	13.329	106.3	14.397	110.3	15.603
98.4	12.407	102.4	13.354	106.4	14.425	110.4	15.634
98.5	12.429	102.5	13.379	106.5	14.454	110.5	15.666
98.6	12.452	102.6	13.404	106.6	14.482	110.6	15.698
98.7	12.474	102.7	13.43	106.7	14.511	110.7	15.73
98.8	12.496	102.8	13.455	106.8	14.54	110.8	15.762
98.9	12.519	102.9	13.481	106.9	14.569	110.9	15.794
99	12.542	103	13.506	107	14.598	111	15.827
99.1	12.564	103.1	13.532	107.1	14.627	111.1	15.859
99.2	12.587	103.2	13.558	107.2	14.656	111.2	15.891
99.3	12.61	103.3	13.584	107.3	14.685	111.3	15.924
99.4	12.633	103.4	13.61	107.4	14.715	111.4	15.956
99.5	12.655	103.5	13.636	107.5	14.744	111.5	15.989
99.6	12.679	103.6	13.662	107.6	14.773	111.6	16.021
99.7	12.702	103.7	13.688	107.7	14.803	111.7	16.054
99.8	12.725	103.8	13.714	107.8	14.833	111.8	16.087
99.9	12.748	103.9	13.741	107.9	14.863	111.9	16.119
100	12.771	104	13.767	108	14.892	112	16.152
100.1	12.795	104.1	13.793	108.1	14.922	112.1	16.185
100.2	12.818	104.2	13.82	108.2	14.953	112.2	16.218
100.3	12.842	104.3	13.847	108.3	14.983	112.3	16.251
100.4	12.865	104.4	13.873	108.4	15.013	112.4	16.284
100.5	12.889	104.5	13.9	108.5	15.043	112.5	16.317
100.6	12.913	104.6	13.927	108.6	15.073	112.6	16.35
100.7	12.937	104.7	13.954	108.7	15.104	112.7	16.384
100.8	12.96	104.8	13.981	108.8	15.135	112.8	16.417
100.9	12.984	104.9	14.008	108.9	15.165	112.9	16.451

Height	SD2neg	Height	SD2neg
113	16.484	117	17.846
113.1	16.517	117.1	17.881
113.2	16.551	117.2	17.915
113.3	16.584	117.3	17.949
113.4	16.618	117.4	17.984
113.5	16.652	117.5	18.018
113.6	16.685	117.6	18.053
113.7	16.719	117.7	18.087
113.8	16.753	117.8	18.122
113.9	16.786	117.9	18.156
114	16.82	118	18.19
114.1	16.854	118.1	18.225
114.2	16.888	118.2	18.259
114.3	16.922	118.3	18.294
114.4	16.956	118.4	18.328
114.5	16.99	118.5	18.363
114.6	17.024	118.6	18.397
114.7	17.058	118.7	18.432
114.8	17.092	118.8	18.466
114.9	17.126	118.9	18.5
115	17.16	119	18.534
115.1	17.194	119.1	18.569
115.2	17.229	119.2	18.603
115.3	17.263	119.3	18.638
115.4	17.297	119.4	18.672
115.5	17.331	119.5	18.706
115.6	17.365	119.6	18.741
115.7	17.4	119.7	18.775
115.8	17.434	119.8	18.81
115.9	17.468	119.9	18.844
116	17.503	120	18.878
116.1	17.537		
116.2	17.571		
116.3	17.606		
116.4	17.64		
116.5	17.674		
116.6	17.708		
116.7	17.743		
116.8	17.777		
116.9	17.812		

WHO standard for “stunted”: length/height in centimeters, 2 standard deviations below child growth median, by age and sex.

GIRLS				BOYS			
Month	SD2ne	Month	SD2ne	Month	SD2ne	Month	SD2ne
s	g	s	g	s	g	s	g
1	49.727	31	84.297	1	50.773	31	85.754
2	53.006	32	84.939	2	54.438	32	86.352
3	55.569	33	85.57	3	57.313	33	86.937
4	57.777	34	86.21	4	59.741	34	87.532
5	59.585	35	86.819	5	61.669	35	88.096
6	61.217	36	87.439	6	63.362	36	88.675
7	62.654	37	88.031	7	64.82	37	89.226
8	64.042	38	88.634	8	66.21	38	89.787
9	65.315	39	89.209	9	67.485	39	90.324
10	66.532	40	89.777	10	68.696	40	90.855
11	67.737	41	90.355	11	69.887	41	91.399
12	68.893	42	90.906	12	71.022	42	91.916
13	69.97	43	91.469	13	72.078	43	92.444
14	71.009	44	92.006	14	73.091	44	92.946
15	72.046	45	92.553	15	74.1	45	93.46
16	73.017	46	93.076	16	75.042	46	93.952
17	73.959	47	93.607	17	75.955	47	94.456
18	74.904	48	94.116	18	76.868	48	94.939
19	75.792	49	94.621	19	77.722	49	95.418
20	76.685	50	95.135	20	78.579	50	95.914
21	77.527	51	95.628	21	79.383	51	96.389
22	78.372	52	96.131	22	80.19	52	96.88
23	79.171	53	96.615	23	80.949	53	97.354
24	79.276	54	97.11	24	81.017	54	97.843
25	80.035	55	97.582	25	81.742	55	98.314
26	80.777	56	98.065	26	82.446	56	98.801
27	81.525	57	98.529	27	83.154	57	99.272
28	82.232	58	98.989	28	83.82	58	99.739
29	82.945	59	99.457	29	84.49	59	100.22
30	83.616	60	99.908	30	85.12	60	100.69
							2

Note: data from http://www.who.int/childgrowth/standards/height_for_age/en/

WHO standard for Underweight: weight in kilograms, 2 standard deviations below child growth median, by age and sex.

GIRLS				BOYS			
Month	SD2ne	Month	SD2ne	Month	SD2ne	Month	SD2ne
s	g	s	g	s	g	s	g
1	3.148	31	10.118	1	3.376	31	10.654
2	3.944	32	10.257	2	4.322	32	10.781
3	4.531	33	10.395	3	5.012	33	10.906
4	5.017	34	10.535	4	5.565	34	11.033
5	5.402	35	10.669	5	5.994	35	11.155
6	5.733	36	10.806	6	6.357	36	11.28
7	6.008	37	10.938	7	6.653	37	11.4
8	6.257	38	11.073	8	6.917	38	11.524
9	6.473	39	11.202	9	7.145	39	11.643
10	6.671	40	11.33	10	7.354	40	11.762
11	6.863	41	11.46	11	7.556	41	11.885
12	7.047	42	11.585	12	7.747	42	12.004
13	7.22	43	11.712	13	7.924	43	12.125
14	7.389	44	11.834	14	8.095	44	12.243
15	7.562	45	11.96	15	8.267	45	12.363
16	7.728	46	12.08	16	8.431	46	12.479
17	7.892	47	12.204	17	8.591	47	12.598
18	8.061	48	12.323	18	8.753	48	12.713
19	8.223	49	12.442	19	8.908	49	12.827
20	8.389	50	12.564	20	9.066	50	12.944
21	8.549	51	12.682	21	9.218	51	13.056
22	8.714	52	12.805	22	9.373	52	13.172
23	8.874	53	12.923	23	9.522	53	13.285
24	9.039	54	13.044	24	9.675	54	13.4
25	9.197	55	13.161	25	9.821	55	13.511
26	9.355	56	13.281	26	9.964	56	13.625
27	9.516	57	13.397	27	10.11	57	13.736
28	9.669	58	13.511	28	10.248	58	13.845
29	9.824	59	13.629	29	10.388	59	13.958
30	9.97	60	13.742	30	10.52	60	14.067

Note: data from http://www.who.int/childgrowth/standards/weight_for_age/en/

APPENDIX C. Baseline Survey Questionnaires

Household Questionnaire _____	166
Gender Questionnaire _____	205
Household Food Consumption Survey & Child Anthropometry Questionnaire __	217
Village Questionnaire _____	239



Baseline Survey: HOUSEHOLD QUESTIONNAIRE

MODULE 1: HOUSEHOLD IDENTIFICATION COVER SHEET

DATE OF SURVEY	_ _ _ Day	_ _ _ Month	_2_ _ _0_ _ _1_ _ _5_ _ Year
-----------------------	---------------	-----------------	----------------------------------

100: Country	101: Region	102: Province/District	103: Commune	104: Village
..... _ _ _ _ _ _ _ _ _ _ _

GPS UNIT (UTM reading)				109	110
105: Accuracy	106: Elev	107: Lat	108: Long	Enumerator Code	Supervisor Code
.....	_ _	_ _

111: Compound	112: Household
Compound ID: _ _ _ _	Household ID in Village: _ _ _ _
Full Name of Head of Compound: _____	Household ID in Sample: _ _ _
Phone Number of Head of Compound: _____	Full Name of Head of Household: _____
	Phone Number of Head of Household: _____
	Household Size: _ _ _

113	
Interview result (circle code)	
Fully completed 1	_
Partially completed 2	
Refusal 3	
Absent 4	
Other 5	

Interview status comments:

Supervisor's clearance

"I certify that this questionnaire has been collected in accordance with the survey design and RISE survey guidance."

Supervisor's Name: _____

Date of Verification: |_|_|/|_|_|/|_|_|_|_|

Confidential

INFORMED CONSENT SIGNATURE PAGE

Thank you for the opportunity to speak with you. We are from SAREL, a USAID-funded project in partnership with the Governments of Niger and Burkina Faso. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing of households in this area. Your household has been selected to participate in an interview on topics such as your dwelling characteristics, household expenditures and assets, household food consumption and nutrition of children. The survey includes questions about the household generally, and questions about individuals within your household, if applicable. These questions in total will take approximately one and half hours (1h30) 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.

Do you have any questions about the survey or what I have just said? If in the future you have any questions regarding the survey and the interview, or concerns or complaints we welcome you to contact the USAID/SAREL Project (**Stephen Reid** | Chief of Party, Sahel Resilience Learning (SAREL) Project / Tel. : 227-9663-0291 | 227-9025-7197 / sreid@sarelproject.com). We will leave one copy of this form for you so that you will have record of this contact information and about the study.

	Name	Consent to participate in survey (Insert code)		Signature or mark
		YES=1	NO=2	
1		<input type="checkbox"/>	<input type="checkbox"/>	
2		<input type="checkbox"/>	<input type="checkbox"/>	
3		<input type="checkbox"/>	<input type="checkbox"/>	
4		<input type="checkbox"/>	<input type="checkbox"/>	
5		<input type="checkbox"/>	<input type="checkbox"/>	
6		<input type="checkbox"/>	<input type="checkbox"/>	
7		<input type="checkbox"/>	<input type="checkbox"/>	
8		<input type="checkbox"/>	<input type="checkbox"/>	
9		<input type="checkbox"/>	<input type="checkbox"/>	
10		<input type="checkbox"/>	<input type="checkbox"/>	

MODULE 2: HOUSEHOLD ROSTER AND DEMOGRAPHICS

QUESTION WORDING AND NUMBER												
200	201	202	203	204	205	206	207	208	209	210	211	212
ID	Household member name (Start with household head)	[name]'s Age in completed years Put "00" for members under 1 and "80" for members more than 80	[name]'s Sex 1 Male 2 Female	[name]'s Relationshi p to household head Enter codes from list	[name]'s ethnic group Enter from list	For ages 5 years and above			For ages 12 years and above		Identification of children between 0 and 59 months and caregivers (mothers, grandmothers, etc.) Write down the numbers of children under 5 Write down [name]'s caregiver's number	
						Maximum education completed by [name] Enter from list	Can [name] read or write a national language? 1 Yes 2 No	Can [name] read or write a foreign language? 1 = Yes-French 2. Yes-English 3. Yes-Arabic (BF) 4. Yes-Other 5. No	[name]'s Marital status Enter from list	[name]'s Primary Occupation Enter from list		
01												

QUESTION WORDING AND NUMBER												
200	201	202	203	204	205	206	207	208	209	210	211	212
ID	Household member name (Start with household head)	[name]'s Age in completed years Put "00" for members under 1 and "80" for members more than 80	[name]'s Sex 1 Male 2 Female	[name]'s Relationship to household head Enter codes from list	[name]'s ethnic group Enter from list	For ages 5 years and above			For ages 12 years and above		Identification of children between 0 and 59 months and caregivers (mothers, grandmothers, etc.)	
						Maximum education completed by [name] Enter from list	Can [name] read or write a national language? 1 Yes 2 No	Can [name] read or write a foreign language? 1 = Yes-French 2. Yes-English 3. Yes-Arabic (BF) 4. Yes-Other 5. No	[name]'s Marital status Enter from list	[name]'s Primary Occupation Enter from list	Write down the numbers of children under 5	Write down [name]'s caregiver's number

QUESTION WORDING AND NUMBER													
200	201	202	203	204	205	206	207	208	209	210	211	212	
ID	Household member name (Start with household head)	[name]'s Age in completed years Put "00" for members under 1 and "80" for members more than 80	[name]'s Sex 1 Male 2 Female	[name]'s Relation- ship to household head Enter codes from list	[name]'s ethnic group Enter from list	For ages 5 years and above			For ages 12 years and above		Identification of children between 0 and 59 months and caregivers (mothers, grandmothers, etc.) Write down the numbers of children under 5		Write down [name]'s caregiver's number
						Maximum education completed by [name] Enter from list	Can [name] read or write a national language? 1 Yes 2 No	Can [name] read or write a foreign language? 1 = Yes-French 2. Yes-English 3. Yes-Arabic (BF) 4. Yes-Other 5. No	[name]'s Marital status Enter from list	[name]'s Primary Occupatio n Enter from list			

HOUSEHOLD MEMBER ROSTER AND DEMOGRAPHICS CODE LIST

Code	Question 204: Relationship Type	Codes	Question 205: Ethnic Group	Code	Question 206: Education	Codes	Question: 209 Marital status
01	Household Head		Burkina Faso Ethnic Groups	01	Never Attended	1	Never married
02	Spouse (wife/husband)	11	Mossi	02	Prep-school	2	Married, monogamous
03	Own son/daughter	12	Fulfuldé/Peul	03	CP1/CI (first year of primary school)	3	Married, polygamous
04	Child from spouse's other marriage	13	Gourmantché	04	CP2/CP (second year of primary school)	4	Cohabitation
05	Step-son/step-daughter	14	Songhaï/Sonraï	05	CE1 (third year of primary school)	5	Divorced/separated
06	Grandson/granddaughter	15	Touareg	06	CE2 (fourth year of primary school)	6	Widow(er)
07	Brother/sister	16	Bella	07	CM1 (fifth year of primary school)		
08	(Biological) parent father/mother	17	Other ethnic groups	08	CM2 (sixth year of primary school)	Codes	Question 210: Main Activity
09	Step-father/step-mother			09	6ème (first year of secondary school)	1	Agriculture
10	Niece/nephew	Codes	Niger Ethnic Groups	10	5ème (second year of secondary school)	2	Livestock
11	Co-wife	21	Hausa	11	4ème (third year of secondary school)	3	Trade
12	House Help	22	Djerma	12	3ème (fourth year of secondary school)	4	N/A
13	Another household member	23	Fulfuldé/Peul	13	2nde (fifth year of secondary school)	5	Other
		24	Gourmantché	14	1ère (sixth year of secondary school)	8	Unaccounted for
		25	Touareg	15	Terminale (seventh year of secondary school)		
		26	Bella	16	Higher		
		27	Songhaï/Sonraï	17	Vocational before CEP/CFEPD		
		28	Other ethnic groups	18	Vocational post-CEP/CFEPD		
				19	Vocational sec. post-BEPC (Junior Secondary School Diploma)		

MODULE 3: SHOCKS (LIST SHOCKS)

300: During the past five (5) years did your household experience any [shock]?	Yes.....1 (If « yes », skip to 301) No1 (If « no », skip to module 4) DK.....8 (If « DK », skip to module 4) Refused.....9 (If « Refused », skip to module 4)	<input type="checkbox"/>
--	--	--------------------------

SHOCK LIST	QUESTION WORDING AND NUMBER				
	301	302	303	304	305
	List the various shocks and circle the codes of the shocks experienced by the household	How many times did you experience [shock] in the last five years?	Among the shocks experienced in the last 5 years, which have you experienced in the last 12 months? Yes = 1 No = 2 (skip to next shock)	What was the severity of the impact of this/these shock(s) experienced by your household in the last 12 months on your income and food consumption? 1. None 2. Slight impact 3. Moderate impact 4. Strong impact 5. Worst ever happened 8. DK	To what extent were you and your household able to recover after this/these shock(s) experienced in the last 12 months? 1. Did not recover 2. Recovered some, but worse off than before [event] 3. Recovered to same level as before [event] 4. Recovered and better off 5. Not affected by [event] 8. DK
Climatic Shocks	Codes				
Excessive rains	01	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Too little rain/drought	02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Massive insect invasion	03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Epizootic (animal disease outbreak)	04	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bush fires	05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conflict shocks					
Land conflicts	06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conflicts between farmers and herders	07	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conflict/violence involving entire communities/villages	08	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theft of assets/holdups (animals, crops, etc.)	09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Socioeconomic shocks					
Sharp food price increase	10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unavailability of agricultural or livestock inputs	11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drop in agricultural or livestock product	12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SHOCK LIST	QUESTION WORDING AND NUMBER				
	301	302	303	304	305
	List the various shocks and circle the codes of the shocks experienced by the household	How many times did you experience [shock] in the last five years?	Among the shocks experienced in the last 5 years, which have you experienced in the last 12 months? Yes = 1 No = 2 (skip to next shock)	What was the severity of the impact of this/these shock(s) experienced by your household in the last 12 months on your income and food consumption? 1. None 2. Slight impact 3. Moderate impact 4. Strong impact 5. Worst ever happened 8. DK	To what extent were you and your household able to recover after this/these shock(s) experienced in the last 12 months? 1. Did not recover 2. Recovered some, but worse off than before [event] 3. Recovered to same level as before [event] 4. Recovered and better off 5. Not affected by [event] 8. DK
demand					
Disease/exceptional health-related expense	13	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Debt repayment	14	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase in price of agricultural or livestock inputs	15	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drop in price of agricultural or livestock products	16	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job loss by household member	17	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Long-term unemployment	18	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abrupt end of assistance/regular support from outside the household	19	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sudden increase in household size (including birth: triplets etc.)	20	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anthropogenic Shocks					
Fire (house,...)	21	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychosocial Shocks					
Death of household member	22	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emigration of household member	23	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serious illness of household member	24	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Shocks					
Forced repatriation	25	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Household dislocation	26	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

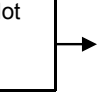
306. How did you cope with the shock(s) you experienced in the last 12 months?

N°	REMEDIES TO SHOCKS	YES=1	NO=2
LIVESTOCK AND LAND HOLDINGS			
01	Send livestock in search of pasture	<input type="checkbox"/>	<input type="checkbox"/>
02	Sell livestock	<input type="checkbox"/>	<input type="checkbox"/>
03	Slaughter livestock	<input type="checkbox"/>	<input type="checkbox"/>
04	Lease out land	<input type="checkbox"/>	<input type="checkbox"/>
MIGRATION			
05	Migrate (only some family members)	<input type="checkbox"/>	<input type="checkbox"/>
06	Migrate (the whole family)	<input type="checkbox"/>	<input type="checkbox"/>
07	Send children or an adult to stay with relatives	<input type="checkbox"/>	<input type="checkbox"/>
COPING STRATEGIES TO REDUCE CURRENT EXPENDITURE			
08	Take children out of school	<input type="checkbox"/>	<input type="checkbox"/>
09	Move to less expensive housing	<input type="checkbox"/>	<input type="checkbox"/>
10	Limit portion size at mealtimes	<input type="checkbox"/>	<input type="checkbox"/>

N°	REMEDIES TO SHOCKS	YES=1	NO=2
COPING STRATEGIES TO GET MORE FOOD OR MONEY			
11	Take up new wage labor	<input type="checkbox"/>	<input type="checkbox"/>
12	Sell household items (e.g., radio, bed)	<input type="checkbox"/>	<input type="checkbox"/>
13	Sell productive assets (e.g., plow, water pump)	<input type="checkbox"/>	<input type="checkbox"/>
14	Take out a loan from an NGO	<input type="checkbox"/>	<input type="checkbox"/>
15	Take out an loan from a bank	<input type="checkbox"/>	<input type="checkbox"/>
16	Take out a loan from a money lender	<input type="checkbox"/>	<input type="checkbox"/>
17	Take out a loan from friends or relatives	<input type="checkbox"/>	<input type="checkbox"/>
18	Send children to work for money (e.g., domestic service)	<input type="checkbox"/>	<input type="checkbox"/>
19	Receive money or food from family members	<input type="checkbox"/>	<input type="checkbox"/>
20	Receive food aid from the government	<input type="checkbox"/>	<input type="checkbox"/>
21	Receive food aid from an NGO	<input type="checkbox"/>	<input type="checkbox"/>
22	Participate in food-for-work or cash-for-work	<input type="checkbox"/>	<input type="checkbox"/>
23	Use money from savings	<input type="checkbox"/>	<input type="checkbox"/>
24	Get money from a relative that migrated (remittances)	<input type="checkbox"/>	<input type="checkbox"/>
25	Eating of lean season food : Anza ; etc.	<input type="checkbox"/>	<input type="checkbox"/>
26	Excavation of termite mounds	<input type="checkbox"/>	<input type="checkbox"/>
27	Hunting, gathering	<input type="checkbox"/>	<input type="checkbox"/>
28	Consume seed stock held for next season	<input type="checkbox"/>	<input type="checkbox"/>
29	Reduce number of meals eaten in a day	<input type="checkbox"/>	<input type="checkbox"/>
30	Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>

MODULE 4. HOUSEHOLD HOUSING CHARACTERISTICS

N°	QUESTION WORDING	ANSWERS	Typing
400	What is the occupancy status of dwelling(s)?	1. Owner 2. Leased property 3. Rent 4. Lodging provided by the employer 5. Lodging provided free of charge by a third party 6. Other (specify) _____	_
401	Type of dwelling occupied by the household	1. Single housing 2. Multi-dwelling building (no block) 3. Hut 4. Villa 5. Apartment Building 6. Other (specify) _____	_
402	What materials have been used to construct the roof of the dwelling?	1. Sheet metal 2. Cement 3. Straw or thatch 4. Wood and mud (earth) 5. Plastic sheeting 6. Other (specify) _____	_
403	What materials have been used to construct the floor of the dwelling?	1. Dirt 2. Cow dung 3. Concrete/stone/cement 4. Sand 5. Other (specify) _____	_
404	What materials have been used to construct the walls?	1. Cement/concrete 2. Fired brick 3. Clay/clay brick 4. Wood/bamboo 5. Stones 6. Sheet metal 7. Straw 8. Other (specify) _____	_
405	How many rooms does the household have?	(Number of rooms)	_ _
406	What type of latrine does your household use?	01. Pit flush toilet 02. Flush toilet connected to a sealed septic system 03. Flush toilet connected to a sewage system 04. Pit toilet with slab 05. Composting toilet 06. Ventilated improved pit 07. Flush toilet with no connection to sewage system 08. Pit toilet with no slab or connected to open septic system 09. Bucket latrine	_ _

N°	QUESTION WORDING	ANSWERS	Typing
		10. Hanging toilet/latrine 11. In the open	
407	What is the main source of drinking water supply for your household?	01. Surface water (dam, river, stream, lake, pond, creek, irrigation channel, canal) 02. Protected well 03. Uncovered, concrete-cased well 04. Traditional well 05. Boreholes/tube-wells 06. Public fountain/public tap 07. Own indoor tap 08. Shared outdoor tap 09. Cart with small tanks/drums 10. Tank trucks 11. Bottled water 12. Other (specify) _____	<input type="text"/>
408	Do you usually do anything to make the water you drink healthier?	1. Yes 2. No [if « no », skip to question 410]	<input type="text"/>
409	What do you do to make the water you drink healthier?	1. Boil it 2. Add bleach/chlorine 3. Filter with cloth 4. Use a water filter 5. Solar disinfection 6. Let the water stand 7. Add Aquatabs 8. Other (specify) _____	<input type="text"/>
410	How long does it take to get water for domestic use (round trip including waiting time for fetching water)? If the water source is in the compound, enter 000 as time value	Duration in minutes	<input type="text"/>
411	Please, show me where the household members wash their hands most often?	1. Observation 2. No observation in the household/compound/plot 3. No observation because not allowed to see 4. No observation for other reasons <div style="display: inline-block; vertical-align: middle; margin-left: 10px;">  </div>	<input type="text"/>
412	Section dedicated to observations Check the presence of water at the specified hand washing location	1. There is water 2. There is no water	<input type="text"/>
413	Section dedicated to observations Check the presence of soap, detergent, or other cleaning agent Also ask if the soap/detergent is kept in another room in the house	1. Soap or detergent 2. Solid, liquid, powder, paste 3. Ash, mud, sand 4. None 5. Other (specify) _____	<input type="text"/>

N°	QUESTION WORDING	ANSWERS	Typing
414	<p>When do your household members wash their hands?</p> <p>Several answers possible (circle the codes corresponding to all answers provided by the respondent and enter responses codes in the spaces)</p> <p><u>Do not read the answers.</u></p>	<p>01. Before eating</p> <p>02. After eating</p> <p>03. Before praying</p> <p>04. Before breastfeeding or feeding a child</p> <p>05. Before cooking food</p> <p>06. After using the toilet/latrine</p> <p>07. After cleaning or changing diapers of a child who has defecated</p> <p>08. When hands are dirty</p> <p>09. After cleaning the toilet or bedpan</p> <p>10. Other (specify)</p> <p>88. DK</p> <p>99. Refused</p>	<p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p>

MODULE 5. ASSETS (EXCLUDING LIVESTOCK)

CONSUMPTION/PRODUCTION ASSETS		QUESTION WORDING AND NUMBER					
		500	501	502	503	504	505
		Does your household currently own (name of asset)? 1 = Yes 2 = No	Number owned now	Number owned a year ago	Number owned two years ago	Did you purchase or pay for any of these [ITEMS] in the last 12 months? Yes = 1 No = 2 (skip to next asset)	How much did you pay for these [ITEMS] all together in the last 12 months? (CFA F) 8 = DK 9 = Refused
Code	1 = CONSUMPTION ASSETS						
101	Improved charcoal/wood stove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
102	Kerosene stove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
103	Gas stove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
104	Chairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
105	Blanket/sakala	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
106	Iron	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
107	Sofa/armchair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
108	Mosquito net	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
109	Wooden bed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
110	Metal bed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
111	Telephone set/cellular phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
112	Radio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
113	Tape player	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
114	Television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
115	Jewelry, gold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
116	Jewelry, silver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
117	Jewelry, wristwatches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
118	Firearms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
119	Table	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
121	Portable hand-held lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
122	Wheelbarrow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
123	Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
124	Cart (animal drawn)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
125	Pick-up truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		QUESTION WORDING AND NUMBER					
		500	501	502	503	504	505
CONSUMPTION/PRODUCTION ASSETS		Does your household currently own (name of asset)? 1 = Yes 2 = No	Number owned now	Number owned a year ago	Number owned two years ago	Did you purchase or pay for any of these [ITEMS] in the last 12 months? Yes = 1 No = 2 (skip to next asset)	How much did you pay for these [ITEMS] all together in the last 12 months? (CFA F) 8 = DK 9 = Refused
126	Motorcycles/mopeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
127	Fans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
128	Sewing machine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
129	Satellite dish/decoder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	Generator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
131	Solar lamp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
132	Refrigerator/freezer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 = PRODUCTIVE ASSETS							
201	Metal-Plow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
202	Sickle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
203	Pick axe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
204	Axe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
205	Pruning/Cutting shears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
206	Hoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
207	Spade or shovel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
208	Traditional beehive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
209	Modern Beehive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
210	Knapsack chemical sprayer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
211	Mechanical water pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
212	Motorized water pump (diesel/gasoline)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
213	Motorized grain mill (diesel/gasoline)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
214	Motor hoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
215	Small tractor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
216	Hand-held motorized tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
217	Farming land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
218	Well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
219	Borehole	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
220	Watering can	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MODULE 5A. ACCESS TO LAND

506a	Has your household engaged in farming activities in the last 12 months?		1. Yes (Fill in the table)	2. No (skip to next module)	
Farm N°	506b Type of Farm		507 Area (ha)	508 Mode of acquisition	
	01. Rain-fed farm 02. Off-season 03. Orchard 04. Hydro-agricultural developments 05. Garden	06. Rain-fed + off-season 07. Rain-fed + off-season + orchard 08. Orchard + off-season 09. Orchard + rain-fed 10. Other		01. Inherited 02. Bought 03. Sharecropping basis 04. Use right (usufruct) 05. Borrowed	06. Right of the axe 07. Hydro-agricultural development 08. Leased 09. Gift, grant
01	_ _	_ _	_ _ _ _ , _	_	
02	_ _	_ _	_ _ _ _ , _	_	
03	_ _	_ _	_ _ _ _ , _	_	
04	_ _	_ _	_ _ _ _ , _	_	
05	_ _	_ _	_ _ _ _ , _	_	
06	_ _	_ _	_ _ _ _ , _	_	
07	_ _	_ _	_ _ _ _ , _	_	
08	_ _	_ _	_ _ _ _ , _	_	
09	_ _	_ _	_ _ _ _ , _	_	
10	_ _	_ _	_ _ _ _ , _	_	
11	_ _	_ _	_ _ _ _ , _	_	
13	_ _	_ _	_ _ _ _ , _	_	
14	_ _	_ _	_ _ _ _ , _	_	
15	_ _	_ _	_ _ _ _ , _	_	

MODULE 6: LIVESTOCK ASSETS

TYPE OF LIVESTOCK		QUESTION WORDING AND NUMBER		
		601	602	603
		Total [livestock types] owned one year ago (opening stock)	Total [livestock type] owned now (closing stock) if Q602=0 skip to next row)	If you would sell an average one of the [livestock types] today, how much would you receive from the sale? (CFA F)
01	Oxen (bovine)	□□□□	□□□□	□□□□□□□□
02	Sheep (ovine)	□□□□	□□□□	□□□□□□□□
03	Goats (caprine)	□□□□	□□□□	□□□□□□□□
04	Donkeys	□□□□	□□□□	□□□□□□□□
05	Horse (equine)	□□□□	□□□□	□□□□□□□□
06	Pigs (porcine)	□□□□	□□□□	□□□□□□□□
07	Camels – dromedaries	□□□□	□□□□	□□□□□□□□
08	Rabbits	□□□□	□□□□	□□□□□□□□
09	Hens	□□□□	□□□□	□□□□□□□□
10	Guinea fowls	□□□□	□□□□	□□□□□□□□
11	Turkeys	□□□□	□□□□	□□□□□□□□
12	Ducks	□□□□	□□□□	□□□□□□□□
13	Pigeons	□□□□	□□□□	□□□□□□□□

MODULE 7. LIVESTOCK COMMODITIES (ASK THESE QUESTIONS EVEN IF THE HOUSEHOLD DOES NOT OWN OR USE LIVESTOCK.)

Commodity		700	701	702	703	704	705
		Did your household produce (name of product) in the last 12 months? Yes = 1 No = 2	Number of animals that have been milked in the last 12 months?	Number of months in which milking occurs every day in the last 12 months?	Frequency (number of milkings per day during those months)?	Daily milk quantity in liters collected during these months?	What proportion (%) of milk was sold per day during those months?
1	Cattle Milk	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Sheep/Goat milk	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	Camel milk	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

MODULE 7A. HOUSEHOLD AGRICULTURAL PRODUCTION

Commodity		QUESTION WORDING AND NUMBER									
		701b		702b		703b	704b	705b		706b	
		Total [commodity] produced in the last year (in the last 12 months)		Total [commodity] sold in the last year (in the last 12 months)		Value of commodity sold in the last year (in the last 12 months)	Where did you sell [commodity]? 1= Local market 2=Regional market 3=Others	Current stock of [commodity]		If you would sell the stock today, how much would you receive from the sale? (CFA F)	
		Quantity	Unit	Quantity	Unit			Quantity	Unit		
01	Millet										
02	Maize										
03	Rice										
04	Sorghum										
05	Wheat										
06	Fonio										
07	Cowpea										
08	Peanut										
09	Sesame										
10	Vouandzou										
11	Tobacco										
12	Cotton										
13	Beans										
14	Tigernut										
15	Henna										
16	Sweet potato										
17	Irish potato										
18	Onion										
19	Hot pepper										
20	Sorrel										
21	Okra										
22	Tomato										
23	Lettuce (salad)										
24	Cabbage										
25	Fruit trees (specify)										
26	Other (specify)										

Units of measure code list											
01 Kilograms	02 Quintal	03 Ton	04 Stack	05 Basket	06 50 kg bag	07 100 kg bag	08 Pack	09 Bundles	10 Unit	11 « Tine »	12 Other

MODULE 8. HOUSEHOLD CONSUMPTION EXPENDITURE

Ask these questions about the consumption/expenditures of all household members. Ask whoever is most knowledgeable about the food the household members have eaten over the past 7 days, as well as any non-food items that household members have bought. The same respondent should be asked questions in Modules E2-E5.

Note: Quantities are often reported in local units of measure. Any unit listed must be able to be converted to a standardized unit. This conversion will happen during data analysis. It should not be done in the field by the enumerator.

MODULE 8-E2. NON-FOOD EXPENDITURES OVER PAST 7 DAYS

		Over the past week (7 days), did your household use or buy any [item]?	How much did you pay (how much did [item] cost) in total?
		Yes = 1 No = 2 DK = 8 Refused = 9	
		} skip to next asset	
Code	Items	E2.01	E2.02 (CFAF)
1101	Charcoal or other fuel for cooking	<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"/> <input type="checkbox"/> <input type="checkbox"/>
1102	Firewood	<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"/> <input type="checkbox"/>
1103	Gasoline	<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"/> <input type="checkbox"/>
1104	Kerosene	<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"/> <input type="checkbox"/>
1105	Gas	<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"/> <input type="checkbox"/>
1106	Batteries	<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"/> <input type="checkbox"/>
1107	Candles	<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"/> <input type="checkbox"/>
1108	Matches	<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"/> <input type="checkbox"/>
1109	Prepaid top-up card/mobile phone credit transfer	<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"/> <input type="checkbox"/>
1110	Transport	<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"/> <input type="checkbox"/>
1111	Milling fees for grains	<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"/> <input type="checkbox"/>

MODULE 8-E3. NON-FOOD EXPENDITURES OVER PAST ONE MONTH

		Over the past 30 days (past month), did your household use or buy any [item]?	How much did you pay (how much did [item] cost) in total?
		Yes = 1 No = 2 DK = 8 Refused = 9	
		} skip to next asset	
Code	Items	E3.01	E3.02 (CFAF)
1201	Milling fees for grains (excluding cost of grain itself), grain	<input type="checkbox"/>	<input type="text"/>
1202	Personal products (body soap, skin creams, shampoo, razor blades, toothbrush/paste, etc.).	<input type="checkbox"/>	<input type="text"/>
1203	Soap for clothes	<input type="checkbox"/>	<input type="text"/>
1204	Donation - to church, mosque, charity, beggar, etc.	<input type="checkbox"/>	<input type="text"/>
1205	Insecticides	<input type="checkbox"/>	<input type="text"/>
1206	Cooking gas	<input type="checkbox"/>	<input type="text"/>
1207	Gasoline or diesel	<input type="checkbox"/>	<input type="text"/>
1208	Light bulbs	<input type="checkbox"/>	<input type="text"/>
1209	Electricity fees	<input type="checkbox"/>	<input type="text"/>
1210	Top-up card fees	<input type="checkbox"/>	<input type="text"/>
1211	Transport costs (bush taxi, motorcycle taxi, canoe, carts, etc.)	<input type="checkbox"/>	<input type="text"/>
1212	(Motor vehicle, motorcycle) service, repair, or parts	<input type="checkbox"/>	<input type="text"/>
1213	Bicycle service, repair, or parts	<input type="checkbox"/>	<input type="text"/>
1214	Repairs & maintenance to dwelling	<input type="checkbox"/>	<input type="text"/>
1215	Repairs to household and personal items (radios, watches, etc., excluding battery purchases)	<input type="checkbox"/>	<input type="text"/>
1216	Vehicle batteries	<input type="checkbox"/>	<input type="text"/>
1217	Batteries	<input type="checkbox"/>	<input type="text"/>
1218	Male hairdressing fees	<input type="checkbox"/>	<input type="text"/>
1219	Female hairdressing fees	<input type="checkbox"/>	<input type="text"/>
1220	Health expenditures related to illnesses and injuries	<input type="checkbox"/>	<input type="text"/>
1221	Health expenditures for preventative care (visits, medications, etc.)	<input type="checkbox"/>	<input type="text"/>

MODULE 8-E4. NON-FOOD EXPENDITURES OVER PAST THREE MONTHS

		Over the past three months, did your household use or buy any [item]?	How much did you pay (how much did [item] cost) in total?
		Yes = 1 No = 2 DK = 8 Refused = 9	
		} skip to next asset	
Code	Items	E4.01	E4.02 (CFAF)
1301	Clothing	_	_ _ _ _ _ _ _ _ _
1302	Shoes	_	_ _ _ _ _ _ _ _ _
1303	Dishware (bowls, plates, glassware)	_	_ _ _ _ _ _ _ _ _
1304	Cooking utensils (cooking pots, stirring spoons and whisks, etc.)	_	_ _ _ _ _ _ _ _ _
1305	Light bulbs	_	_ _ _ _ _ _ _ _ _
1306	Torch/flashlight	_	_ _ _ _ _ _ _ _ _
1307	Kerosene lamp	_	_ _ _ _ _ _ _ _ _
1308	Music or CD/DVD or video cassette	_	_ _ _ _ _ _ _ _ _

MODULE 8-E5. NON-FOOD EXPENDITURES OVER PAST 12 MONTHS

		Over the past one year (twelve months), did your household use or buy any [item]?	How much did you pay (how much did [item] cost) in total?
		Yes = 1 No = 2 DK = 8 Refused = 9	
		} skip to next asset	
Code	Items	E5.01	E5.02 (CFAF)
1401	Carpet, rugs, mats	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1402	Shoe repair	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1403	Linen-towels, sheets, blankets	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1404	Toys	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1405	Mosquito nets	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1406	Construction materials (bricks, cement, wood)	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1407	Dowry	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1408	Marriage ceremony costs	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1409	Funeral costs for household members	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1410	Funeral costs for non-household members (relatives, neighbors/friends)	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1411	Major health expenses (hospitalizations, traditional healer costs) including travel, lodging and food expenses	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1412	Education expenses (fees, books, uniforms, etc.).	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1413	Rituals and traditional events	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1414	Punitive compensation (property damage, injury, loss of life)	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1415	Fertilizer purchase	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1416	Land or livestock taxes	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
1417	Tax (paid by household members)	_	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

MODULE 9. ACCESS TO FINANCIAL SERVICES/CREDIT

N°	QUESTION WORDING	ANSWERS	
901	Have any household members taken out a loan in the last year (cash or in-kind)?	1. Yes (if "yes", skip to q903) 2. No 8. DK (skip to Module 10) 9. Refused (skip to Module 10)	__
902	If not, why not? Enter respondent's answer and skip to Module 10	1. Didn't need 2. Couldn't find a loan that met my needs" (i.e. "is appropriate" in terms of size, terms, Sharia-compliant, etc.); 3. Afraid I couldn't pay back 4. No loan providers in my area 5. Other (specify) 8. DK 9. Refused	__

If yes, list all the loans taken out by household members.

QUESTION WORDING AND NUMBER							
903	904	905	906	907	908	909	910
Loan Number	ID of household member who took the loan Enter IDs or household members who took the loan	Source of the loan 01 Money lender 02 Friend/Neighbor 03 Family member 04 Micro credit 05 Bank 06 NGO 07 Religious institution 08 Savings group 09 Input supplier 10 Local trader 11 Community based organization (CBO) 12 Other (specify) 88 DK 99 Refused	What was the total value of the loan? (CFA F)	Do you have to pay a monthly interest rate or service fee on the loan? 1=yes 2=no 8 = DK 9 = Refused	Purpose of the loan 1. Feed family 2. Pay school fees 3. Pay medical fees 4. Production inputs (e.g. livestock, agricultural inputs) 5. Business capital 6. Pay veterinary fees 7. Other	Who made the decision from [SOURCE]? 01 Myself 02 Partner 03 Myself and partner/spouse together 04 Another household member 05 Myself and other household member(s) 06 Partner/spouse 07 Household 08 Myself and another external person 09 Partner/spouse and another external person 10 Myself, partner/spouse and another external person	Who makes the decision on what to do with the money/item borrowed from [SOURCE]? 01 Myself 02 Partner 03 Myself and partner/spouse together 04 Another household member 05 Myself and other household member(s) 06 Partner/spouse 07 Household 08 Myself and another external person 09 Partner/spouse and another external person 10 Myself, partner/spouse and another external person
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

MODULE 10. ACCESS TO FINANCIAL SERVICES/ SAVINGS

1001	Do any of your household members have cash savings?	Yes 1 No 2 DK 8 Refused 9	} (skip to next module) <input type="checkbox"/>
-------------	---	--	--

QUESTION WORDING AND NUMBER			
1002	1003	1004	1005
Saving Number	Enter the ID of household member owning the savings	Where is the savings held? 1. In cash at home 2. With microfinance institution 3. With bank 4. With savings group 5. Other (specify) 8. DK 9. Refused	What is the primary purpose of the saving? 1. To use in emergencies 2. To buy livestock 3. For non-livestock business investment 4. Seed purchase 5. Invest in agriculture 6. Timber harvesting/reforestation 7. Other (specify) 8. DK 9. Refused
1	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>

MODULE 11. ACCESS TO INFORMATION

		QUESTION WORDING AND NUMBER	
		1101	1102
TYPE OF INFORMATION		Did you receive any information on [topic] in the last year? Yes = 1 No = 2 skip to next topic DK = 8 skip to next topic Refused = 9 skip to next topic	What was your main source of information about [topic]? 01. Rural development agents 02. Service providers (agricultural, health/hygiene, veterinary, etc.) 03. Village/traditional leaders 04. Coranic schoolteachers 05. Madrasa/Franco-Arabic teachers 06. Conventional/mainstream education teachers 07. Neighbors or friends 08. Government officials 09. Family members 10. Newspapers 11. Audiovisual media/TV/radio 12. Internet or SMS 13. Town crier 14. Village Development Committee (CVD) 15. Other (specify)
1	Long-term changes in weather patterns	_	_ _
2	Rainfall prospects / weather prospects for coming season	_	_ _
3	Water availability and prices of local boreholes, shallow wells etc.	_	_ _
4	Methods for animal health/husbandry	_	_ _
5	Livestock disease threats or epidemics	_	_ _
6	Innovations in cultivation	_	_ _
7	Child nutrition and health information	_	_ _

MODULE 12. LIVELIHOOD ACTIVITIES

LIVELIHOOD ACTIVITIES		QUESTION WORDING AND NUMBER				
		1201	1202	1203	1204	1205
		What were the sources of your household's food/income over the whole last 12 months? Yes = 1 No = 2	Rank these sources based on the proportion of food/income they provide for your household Rank from 1 (highest proportion of food/income) to the number in q1202.	Enter the proportion of food/income they provide for your household 88. DK 99. Refused	Is this food/income source available in the dry season only, wet season only, or all year? 1. Dry season only 2. Wet season only 3. Both (all year round) 8. DK 9. Refused	Do you only rely on this source during times of stress? 1. Yes 2. No 8. DK 9. Refused
Code	1. Agricultural Sources					
101	Farming/crop production and sales	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
102	Livestock production and sales	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
103	Farm laborer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
104	Production and sale of seedlings, seeds, animal feed	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
105	Production and sale of firewood, charcoal, poles, timber	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
106	Sale of wild products	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
107	Employed in an agricultural and animal product processing and marketing company	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
108	Private agricultural service providers (veterinary paraprofessionals, agricultural service delivery agent, etc.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
109	Other (specify)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
110	Other (specify)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2. Non-agricultural Sources						
201	Retailing (shopkeeper, sale of non-agricultural products etc.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
202	Non-agricultural service delivery agent	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
203	Technical and professional activities (carpenter, mason, bike or motorcycle repairman, tire repairman, mechanic, cellular phone repairman, motor pump repairman, tailor, etc.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
204	Artisanal mining	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

		QUESTION WORDING AND NUMBER				
		1201	1202	1203	1204	1205
LIVELIHOOD ACTIVITIES		What were the sources of your household's food/income over the whole last 12 months? Yes = 1 No = 2	Rank these sources based on the proportion of food/income they provide for your household Rank from 1 (highest proportion of food/income) to the number in q1202.	Enter the proportion of food/income they provide for your household 88. DK 99. Refused	Is this food/income source available in the dry season only, wet season only, or all year? 1. Dry season only 2. Wet season only 3. Both (all year round) 8. DK 9. Refused	Do you only rely on this source during times of stress? 1. Yes 2. No 8. DK 9. Refused
205	Non-agricultural worker (factory, company, mine, etc.)	_	_ _	_ _ _	_	_
206	Domestic help	_	_ _	_ _ _	_	_
207	Crafts (pottery, basketry, carved wood, etc.)	_	_ _	_ _ _	_	_
208	Carrier, docker	_	_ _	_ _ _	_	_
209	Other (specify)	_	_ _	_ _ _	_	_
210	Other (specify)	_	_ _	_ _ _	_	_
3. External Non-agricultural Sources						
301	Migration	_	_ _	_ _ _	_	_
302	Gifts/inheritance	_	_ _	_ _ _	_	_
303	Other (specify)	_	_ _	_ _ _	_	_
304	Other (specify)	_	_ _	_ _ _	_	_
305	Other (specify)	_	_ _	_ _ _	_	_

Questions to be asked only if the household responded in the table above that migration was a source of food / income in the last 12 months

1206. In your household, how many people have migrated in the last twelve months?		_ _				
	Migrant List	QUESTION WORDING AND NUMBER				
		1207	1208	1209	1210	1211
		Where did the person migrate to? 1. Another locality in the country 2. Another African country 3. Another non-African country 8. DK 9. Refused	Is migration seasonal or permanent? 1. Seasonal 2. Permanent 8. DK 9. Refused	How long ago (in months) did the person migrate? (enter the number of months since the individual migrated) 88. DK 99. Refused	What is the main income generating activity in which the person is engaged over there?	Has the person ever sent money back to your household from his/her place of migration? 1. Yes 2. No 8. DK 9. Refused
1	Person 1	_	_	_ _	_ _	_
2	Person 2	_	_	_ _	_ _	_
3	Person 3	_	_	_ _	_ _	_
4	Person 4	_	_	_ _	_ _	_
5	Person 5	_	_	_ _	_ _	_

MODULE 13. SOCIAL AND CAPACITY-BUILDING SUPPORT

N°	QUESTION WORDING	ANSWERS/CODES	
FORMAL SOURCES OF SOCIAL SUPPORT			
1301	Has your household received any kind of support from the government, an NGO or religious organization during the last year?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/> Skip to Q1304a
1302	Who provided the support? (Multiple response)	1. Government	Yes = 1 No = 2 <input type="checkbox"/>
		2. NGOs.....	Yes = 1 No = 2 <input type="checkbox"/>
		3. Religious organization	Yes = 1 No = 2 <input type="checkbox"/>
		8. Other (specify)	Yes = 1 No = 2 <input type="checkbox"/>
1303	What types of support were received? (Read list)	1. Food ration.....	Yes = 1 No = 2 <input type="checkbox"/>
		2. Food-for-work/Cash-for-work	Yes = 1 No = 2 <input type="checkbox"/>
		3. Housing materials	Yes = 1 No = 2 <input type="checkbox"/>
		4. Installed water points.....	Yes = 1 No = 2 <input type="checkbox"/>
		5. Installed latrine	Yes = 1 No = 2 <input type="checkbox"/>
		6. School for children	Yes = 1 No = 2 <input type="checkbox"/>
		7. Cash transfer.....	Yes = 1 No = 2 <input type="checkbox"/>
		8. Other (specify)	Yes = 1 No = 2 <input type="checkbox"/>
INFORMAL SOURCES OF SOCIAL SUPPORT			
1304a	Has your household received any kind of support from relatives, neighbors or friends in the past 12 months?)	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/> Skip to Q1305
1304b	What types of assistance has your household received from relatives, neighbors or friends in the past 12 months? (Read list)	1. Zakat	Yes = 1 No = 2 <input type="checkbox"/>
		2. Remittances	Yes = No = 2 <input type="checkbox"/>

N°	QUESTION WORDING	ANSWERS/CODES		
		1		
		3. Gifts/habbanaye (donation of cash/animals to people in need)	Yes = 1	No = 2 <input type="checkbox"/>
		4. Loans (cash, labor, seeds, animals)	Yes = 1	No = 2 <input type="checkbox"/>
		5. Restocking of poorer relatives	Yes = 1	No = 2 <input type="checkbox"/>
		6. Sadaqa	Yes = 1	No = 2 <input type="checkbox"/>
		8. Other (specify)	Yes = 1	No = 2 <input type="checkbox"/>
1305	Presently, if your household had a problem and needed <i>money or food</i> urgently, would you be able to get it from relatives living in this community?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>		
1306	Presently, if your household had a problem and needed money for food urgently, would you be able to get it from relatives living elsewhere?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>		
1307	Presently, if your household had a problem and needed money for food urgently, would you be able to get it from people in your community who are not your relatives?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>		
1308	Presently, if your household had a problem and needed money for food urgently, would you be able to get it from people living someplace else who are not your relatives?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>		
1309	Compared to one year ago has your ability to get this type of assistance:	1. Increased 2. Stayed the same 3. Decreased 8. DK 9. Refused <input type="checkbox"/>		
1310	Presently, if someone in your household fell ill or was injured, and you needed	1. Yes <input type="checkbox"/>		

N°	QUESTION WORDING	ANSWERS/CODES	
	assistance to perform work in your household, would you be able to get it from people in your community or from relatives?	2. No 8. DK 9. Refused	
1311	Presently, if your household had a problem and needed assistance to perform work therein, would you be able to get it from relatives living elsewhere?	1. Yes 2. No 8. DK 9. Refused	_
1312	Presently, if your household had a problem and needed assistance to perform work therein, would you be able to get it from people in your community who are not your relatives?	1. Yes 2. No 8. DK 9. Refused	_
1313	Presently, if your household had a problem and needed assistance to perform work therein, would you be able to get it from people living elsewhere who are not your relatives?	1. Yes 2. No 8. DK 9. Refused	_
1314	Compared to one year ago has the number of people you think you could ask for assistance to perform work in your household:	1. Increased 2. Stayed the same 3. Decreased 8. DK 9. Refused	_
1315a	Has your household given assistance to relatives, neighbors or friends in the past 12 months?	1. Yes 2. No 8. DK 9. Refused	_

→ Skip to Q1316

1315b	What types of assistance has your household given to relatives, neighbors or friends in the past 12 months? (Read list)	1. Zakat	Yes = 1	No = 2	<input type="checkbox"/>
		2. Remittances	Yes = 1	No = 2	<input type="checkbox"/>
		3. Gifts/habbanaye (donation of cash/animals to people in need)	Yes = 1	No = 2	<input type="checkbox"/>
		4. Loans (cash, labor, seeds, animals)	Yes = 1	No = 2	<input type="checkbox"/>
		5. Restocking of poorer relatives	Yes = 1	No = 2	<input type="checkbox"/>
		6. Sadaqa	Yes = 1	No = 2	<input type="checkbox"/>
		8. Other (specify)	Yes = 1	No = 2	<input type="checkbox"/>
1316	Presently, if a relative in this community had a problem and needed <i>money for food</i> urgently, would you be able to give money or food?	1. Yes 2. No 8. DK 9. Refused			<input type="checkbox"/>
1317	Presently, if a relative outside this community had a problem and needed <i>money for food</i> urgently, would you be able to give money or food?	1. Yes 2. No 8. DK 9. Refused			<input type="checkbox"/>
1318	Presently, if someone who is not your relative, but lives in this community had a problem and needed <i>money for food</i> urgently, would you be able to give money or food?	1. Yes 2. No 8. DK 9. Refused			<input type="checkbox"/>
1319	Presently, if someone who is not your relative and lives someplace else had a problem and needed <i>money for food</i> urgently, would you be able to give money or food?	1. Yes 2. No 8. DK 9. Refused			<input type="checkbox"/>
1320	Compared to one year ago has your ability to give this type of assistance:	1. Increased 2. Stayed the same 3. Decreased 8. DK 9. Refused			<input type="checkbox"/>
1321	Presently, if a relative who lives in this community had a problem and needed <i>help with his/her work</i> , would you be able to help him/her with it?	1. Yes 2. No 8. DK 9. Refused			<input type="checkbox"/>
1322	Presently, if a relative who lives outside this community had a problem and needed <i>help with his/her work</i> , would you be able to help him/her with it?	1. Yes 2. No			<input type="checkbox"/>

		8. DK 9. Refused	
1323	Presently, if a person who is not your relative but lives in this community had a problem and needed <i>help with his/her work</i> , would you be able to help him/her with it?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1324	Presently, if a person who is not your relative and lives someplace else had a problem and needed <i>help with his/her work</i> , would you be able to help him/her with it?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1325	Compared to one year ago has your ability to give this type of assistance:	1. Increased 2. Stayed the same 3. Decreased 8. DK 9. Refused	<input type="checkbox"/>
CAPACITY-BUILDING SUPPORT			
1326	In the last 12 months, have you or anyone in your household ever received any vocational (job) or skill training?	1. Yes 2. No 8. DK 9. Refused → Skip to Q1328	<input type="checkbox"/>
1327	Who provided the vocational skills training?	1. Government 2. NGOs 3. Private sector 8. DK 9. Refused	<input type="checkbox"/>
1328	In the last 12 months, have you or anyone in your household ever received any business development training?	1. Yes 2. No 8. DK 9. Refused → Skip to Q1330	<input type="checkbox"/>
1329	Who provided the business development training?	1. Government 2. NGOs 3. Private sector 8. DK 9. Refused	<input type="checkbox"/>
1330	In the last 12 months, have you or anyone in your household received any early warning training?	1. Yes 2. No 8. DK 9. Refused → Skip to Q1332	<input type="checkbox"/>

1331	Who provided the early warning training?	1. Government 2. NGOs 3. Private sector 8. DK 9. Refused	<input type="checkbox"/>
1332	In the last 12 months, have you or anyone in your household received any natural resource management training?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
		→ Skip to Q1334	
1333	Who provided the natural resource management training?	1. Government 2. NGOs 3. Private sector 8. DK 9. Refused	<input type="checkbox"/>
1334	In the last 12 months, have you or anyone in your household received seed packets/starter packets from the government or NGOs?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
		→ Skip to Q1336	
1335	Who did you receive them from?	1. Government 2. NGOs 8. DK 9. Refused	<input type="checkbox"/>
1336	In the last 12 months, have you or anyone in your household received adult education (literacy or numeracy or financial education)?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
		→ Skip to Q1338	
1337	Who provided adult education (literacy, numeracy or financial education)?	1. Government 2. NGOs 3 Private sector 8. DK 9. Refused	<input type="checkbox"/>

1338	In the last 12 months, have you or anyone in your household received training in how to use your cell phone to get market information such as prices?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1339	Who did you receive training on how to use your cell phone to get market information like prices from?	1. Government 2. NGOs 3 Private sector 8. DK 9. Refused	<input type="checkbox"/>

→ Skip to next module

MODULE 14. ASPIRATIONS AND CONFIDENCE TO ADAPT

N°	QUESTION WORDING	ANSWER/CODE	
1401	Please tell me which one of these views you most agree with.	1. "Each person is primarily responsible for his/her success or failure in life". 2. "One's success or failure in life is a matter of his/her destiny". 3. "One's success or failure in life is a combination of his/her own efforts and destiny" 8. DK 9. Refused	<input type="checkbox"/>
1402	Please tell me which one of these views you most agree with.	1. "To be successful, above all one needs to work very hard". " 2. "To be successful, above all one needs to be lucky". " 3. "To be successful, above all one needs God". 8. DK 9. Refused	<input type="checkbox"/>
1403	Are you willing to move somewhere else to improve your life?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1404	Do you agree that one should always follow the advice of the elders?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1405	Do you communicate regularly with at least one person outside the village?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1406	During the past week, have you engaged in any economic activities with members of other groups of people outside your community? For example, farming, trading, employment, borrowing or lending money.	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1407	How many times in the past month have you gotten together with people to have food or drinks, either in their home or in a public place?	88= DK ; 99 = Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1408	How many times in the past month have you attended a church/mosque or other religious service?	888= DK ; 999 = Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1409	In the last year, how many times have you stayed more than 2 days outside this village?	88= DK ; 99 = Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1410	Do you think men and women should have equal access to social, economic and political opportunities?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1411	Have you successfully engaged with a local authority body to effect a change in your village during the past year?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>

Below is a series of statements that you may agree or disagree with. Using the scales below indicate your agreement with each item.

N°	QUESTION WORDING	CODES/ANSWERS							
		Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree	DK	Refused
1412	I feel like what happens in my life is mostly determined by powerful people.	1	2	3	4	5	6	8	9
1413	My experience in my life has been that what is going to happen will happen.	1	2	3	4	5	6	8	9
1414	My life is mainly controlled by other powerful people.	1	2	3	4	5	6	8	9
1415	It is not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	1	2	3	4	5	6	8	9
1416	I can mostly determine what will happen in my life.	1	2	3	4	5	6	8	9
1417	When I get what I want, it is usually because I worked hard for it.	1	2	3	4	5	6	8	9
1418	My life is determined by my own actions.	1	2	3	4	5	6	8	9
1419	Most people are basically honest.	1	2	3	4	5	6	8	9
1420	Most people can be trusted.	1	2	3	4	5	6	8	9
1421	I trust my neighbors to look after my house if I am away.	1	2	3	4	5	6	8	9



RESILIENCE IN THE SAHEL ENHANCED (RISE)



Baseline Survey: GENDER QUESTIONNAIRE

MODULE 1: HOUSEHOLD IDENTIFICATION COVER SHEET

DATE OF SURVEY	_ _	_ _	_2_ _ _0_	_1_ _	_5_
	Day	Month	Year		

100: Country	101: Region	102: Province/District	103: Commune	104: Village
..... _ _ _ _ _ _ _ _ _ _ _

GPS UNIT (UTM reading)				109	110
105: Accuracy	106: ELEV	107: Lat	108: Long	Enumerator Code	Supervisor Code

.....	_ _	_ _
-------	-------	-------	-------	-----	-----

111: Compound	112: Household
Compound ID: _ _ _	Household ID in Village: _ _ _
Full Name of Head of Compound: _____	Household ID in Sample: _ _
Phone Number of Head of Compound: _____	Full Name of Head of Household: _____
	Phone Number of Head of Household: _____

Answers to Modules G2 through G5 shall be provided by the household member identified in the household questionnaire	113: ID of household member identified in the household questionnaire
	_ _

114	
Interview result (circle code)	
Fully completed 1	_
Partially completed 2	
Refusal 3	
Absent 4	
Other 5	

Interview status comments: _____ _____ _____ _____ _____

Supervisor's clearance

"I certify that this questionnaire has been collected in accordance with the survey design and RISE survey guidance."

Supervisor's Name: _____

Date of Verification: |_|_| / |_|_| / |_|_|_|_|

Confidential

INFORMED CONSENT SIGNATURE PAGE

Thank you for the opportunity to speak with you. We are from SAREL, a USAID-funded project in partnership with the Governments of Niger and Burkina Faso. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing of households in this area. Your household has been selected to participate in an interview on topics such as your dwelling characteristics, household expenditures and assets, household food consumption and nutrition of children. The survey includes questions about the household generally, and questions about individuals within your household, if applicable. These questions in total will take approximately one and half hours (1h30) 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.

Do you have any questions about the survey or what I have just said? If in the future you have any questions regarding the survey and the interview, or concerns or complaints we welcome you to contact the USAID/SAREL Project (**Stephen Reid** | Chief of Party, Sahel Resilience Learning (SAREL) Project / Tel.: 227-9663-0291 | 227-9025-7197 / sreid@sarelproject.com). We will leave one copy of this form for you so that you will have record of this contact information and about the study.

	Name	Consent to participate in survey (Insert code)		Signature or mark
		YES=1	NO=2	
1			<input type="checkbox"/>	
2			<input type="checkbox"/>	
3			<input type="checkbox"/>	
4			<input type="checkbox"/>	
5			<input type="checkbox"/>	
6			<input type="checkbox"/>	
7			<input type="checkbox"/>	
8			<input type="checkbox"/>	
9			<input type="checkbox"/>	
10			<input type="checkbox"/>	

MODULE G2: ROLE IN DECISION MAKING ON PRODUCTION AND INCOME-GENERATING ACTIVITIES

Activity Code	Activity Description	QUESTION WORDING AND NUMBER			
		Did your household conduct this activity (activity name) over the past 12 months? Yes = 1 No = 2	Did you (singular) participate in an [ACTIVITY] over the past 12 months (i.e., during [on/two] cropping season(s))? Yes 1 No.....2 >> skip to next activity	What was your level of input in the decision making on [ACTIVITY]? 1. None; 2. Input in very few decisions; 3. Input in some decisions; 4. Input in most decisions; 5. Input in all decisions; 6. No decision	What was your level of input in the decision making on the use of revenue generated by [ACTIVITY]? 1. None; 2. Input in very few decisions; 3. Input in some decisions; 4. Input in most decisions; 5. Input in all decisions; 6. No decision
		G2.01a	G2.01	G2.02	G2.03
A	Food production: crops primarily grown for household consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Cash crops: crops primarily grown for sale in markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	Livestock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	Non-agricultural economic activities: small business, self-employment, purchase and sale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E	Employment income/salary: work in kind or monetary in agriculture and other paid work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	Fishing and fish pond	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MODULE G3: ACCESS TO PRODUCTIVE CAPITAL

N°	Productive Capital	QUESTION WORDING AND NUMBER								
		Is there anyone in your household who currently owns [item]?	How many [ITEM] does your household currently own?	01. Myself 02. Partner/spouse 03. Myself and partner/spouse together 04. Another household member 05. Myself and (an)other household member(s) 06. Partner/spouse and (an)other household member(s)	07. Someone (or group of people) from outside the household 08. Myself and another external person 09. Partner/spouse and another external person 10. Myself, partner/spouse and another external person 88. DK 99. Refused	According to you, who owns most of [ITEM]?	Most of the time, who may decide to sell [ITEM], according to you?	Most of the time, who may decide to give [ITEM] away, according to you?	Most of the time, who may decide to mortgage or lease [ITEM], according to you?	Who contributes the most in decisions about a new purchase of [ITEM]?
		Yes = 1 No = 2 DK = 8 Refused = 9								
Productive Capital		G301	G302	G303	G304	G305	G306	G307		
A	Farming land (smallholdings/lots)	<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"/> <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"/> <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"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
B	Large scale livestock farming (cattle, herd)	<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"/> <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"/> <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"/> <input type="checkbox"/>		
C	Small scale livestock farming (goat, pig, 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"/> <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"/> <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"/> <input type="checkbox"/>		
D	Chicken, duck, turkey, pigeon, other poultry	<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"/> <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"/> <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"/> <input type="checkbox"/>		
E	Fish pond or fishing gear	<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"/> <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"/> <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"/> <input type="checkbox"/>		
F	Farming 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"/> <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"/> <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"/> <input type="checkbox"/>		
G	Farming 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"/> <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"/> <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"/> <input type="checkbox"/>		
H	Non-agricultural economic 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"/> <input type="checkbox"/>						
I	House (and other buildings)	<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"/> <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"/> <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"/> <input type="checkbox"/>		
J	Long-lasting large consumer goods (refrigerator, TV)	<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"/> <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"/> <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"/> <input type="checkbox"/>		
K	Long-lasting large consumer goods (radio, pot, utensils)	<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"/> <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"/> <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"/> <input type="checkbox"/>		

N°	Productive Capital	QUESTION WORDING AND NUMBER						
		Is there anyone in your household who currently owns [item]?	How many [ITEM] does your household currently own?	01. Myself 02. Partner/spouse 03. Myself and partner/spouse together 04. Another household member 05. Myself and (an)other household member(s) 06. Partner/spouse and (an)other household member(s)		07. Someone (or group of people) from outside the household 08. Myself and another external person 09. Partner/spouse and another external person 10. Myself, partner/spouse and another external person 88. DK 99. Refused		
				Yes = 1 No = 2 DK = 8 Refused = 9	Skip to next item	According to you, who owns most of [ITEM]?	Most of the time, who may decide to sell [ITEM], according to you?	Most of the time, who may decide to give [ITEM] away, according to you?
L	Cellular phone							
M	Other land not used for agricultural needs (smallholdings, residential and commercial land)							
N	Means of transportation (bicycle, motorcycle, car, canoe)							

MODULE G3 (ct'd): ACCESS TO CREDIT

Credit Source Code	Names of Credit Source	QUESTION WORDING AND NUMBER		
		Did anyone in your household take out a loan or borrow cash/kind from [SOURCE] over the past 12 months? 1 = Yes, cash 2 = Yes, in kind 3 = Yes, cash and in kind 4 = No (if no, skip to next credit source) 8 = DK (if DK, skip to next credit source) 9 = Refused (if refused, skip to next credit source)	Who made the decision from [SOURCE]? 01. Myself 02. Partner/spouse 03. Myself and partner/spouse together 04. Another household member 05. Myself and other household member(s) 06. Partner/spouse and the other household members 07. Someone (or group of people) from outside the household 08. Myself and other external persons 09. Partner/spouse and other external persons 10. Myself, partner/spouse and another external person.	Who makes the decision on what to do with the money/item borrowed from [SOURCE]? 01. Myself 02. Partner/spouse 03. Myself and partner/spouse together 04. Another household member 05. Myself and other household member(s) 06. Partner/spouse and the other household members 07. Someone (or group of people) from outside the household 08. Myself and other external persons 09. Partner/spouse and other external persons 10. Myself, partner/spouse and another external person.
		G308	G309	G310
A	Non-governmental organization (NGO)	_	_ _	_ _
B	Informal lender	_	_ _	_ _
C	Formal lender (bank/financial institution)	_	_ _	_ _
D	Friends or relatives	_	_ _	_ _
E	Microfinance run by associations or VSLAs/SACCOs loan/swap transaction	_	_ _	_ _

MODULE G4: DECISION MAKING

N°	ASPECTS OF HOUSEHOLD LIFE	QUESTION WORDING AND NUMBER	
		When decisions are made on the following aspects of the household life, who makes the decision? 01. Husband 02. Myself 03. Husband and myself 04. Another household member 05. Jointly with another household member 06. Jointly with another person from outside the household 07. Another person from outside the household 08. No decision 09. Activity not carried out by the household 88. DK 99. Refused	To what extent do you think you can make your own decisions on these aspects of the household life if you want (wanted)? 1. Not at all 2. Small extent 3. Medium extent 4. To a high extent
		G4.01	G4.02
A	Obtaining inputs for agricultural production	<input type="text"/>	<input type="text"/>
B	Type of crops to be grown	<input type="text"/>	<input type="text"/>
C	Taking crops to the market (or not)	<input type="text"/>	<input type="text"/>
D	Livestock	<input type="text"/>	<input type="text"/>
E	Your (singular) own income or paid job	<input type="text"/>	<input type="text"/>
F	Major household expenses (such as a large household appliance like a refrigerator)	<input type="text"/>	<input type="text"/>
G	Minor household expenses (such as food for daily consumption and other household needs)	<input type="text"/>	<input type="text"/>
H	Migration for paid labor	<input type="text"/>	<input type="text"/>

MODULE G5: USE OF CONTRACEPTION

Now, I would like to talk about family planning with you; the various ways or methods a couple may use to delay or avoid pregnancy.	
<p>G5.01 Have you heard of methods a couple may use to delay or avoid pregnancy?</p> <p>1 = yes 2 = no 8 = DK 9 = Refused</p> <p>} End of interview</p>	<input type="checkbox"/>
IF RESPONDENT HAS NEVER HEARD OF METHODS THAT A COUPLE MAY USE TO AVOID PREGNANCY, STOP THE INTERVIEW HERE	

N°	QUESTIONS	CLASSIFICATION OF CODES	Type
G5.02	Are you and your husband/partner doing anything or are you currently using any method to delay or avoid pregnancy?	1. Yes 2. No 3. N/A 8. DK 9. Refused	<input type="checkbox"/>

Section 5: DECISION MAKING PROCESS		
Now, I would like to discuss the way decisions are made in your household		
N°	QUESTIONS	CODING CLASSIFICATION

G5.03	<p>In your opinion, who should decide the number of children a couple should have?</p> <p>SEVERAL ANSWERS ARE POSSIBLE.</p>	1. Husband/partner.....	<input type="checkbox"/>
		2. Wife	<input type="checkbox"/>
G5.04	<p>In your opinion, who should decide the birth control method a couple should use?</p> <p>SEVERAL ANSWERS ARE POSSIBLE.</p>	3. Husband/partner and wife together.....	<input type="checkbox"/>
		4. Husband/partner and wife and family members	<input type="checkbox"/>
		5. Family elders	<input type="checkbox"/>
		6. Service provider(s).....	<input type="checkbox"/>
		7. Other (specify)	<input type="checkbox"/>
		8. DK	<input type="checkbox"/>
		9. Refused	<input type="checkbox"/>
		1. Husband/partner.....	<input type="checkbox"/>
		2. Wife	<input type="checkbox"/>
3. Husband/partner and wife together.....	<input type="checkbox"/>		
4. Husband/partner and wife and family members	<input type="checkbox"/>		
5. Family elders	<input type="checkbox"/>		
6. Service provider(s).....	<input type="checkbox"/>		
7. Other (specify)	<input type="checkbox"/>		
8. DK	<input type="checkbox"/>		
9. Refused	<input type="checkbox"/>		
G5.05	<p>SEE QUESTION #502 : IF THE COUPLE CURRENTLY USE A BIRTH CONTROL METHOD</p> <p>Who decided on the choice of the birth control method that you or your husband/partner is currently using?</p>	<p>1. Husband/partner</p> <p>2. Myself</p> <p>3. Husband/partner and wife together</p> <p>4. Husband/partner and wife and family members</p> <p>5. Family elders</p> <p>6. Service provider(s)</p> <p>7. Other (specify)</p> <p>8. DK</p> <p>9. Refused</p>	

G5.06	<p>IF THE COUPLE CURRENTLY USE NO BIRTH CONTROL METHOD</p> <p>Who decided not to use any birth control method?</p>	<ol style="list-style-type: none"> 1. Husband/partner 2. Myself 3. Husband/partner and wife together 4. Husband/partner and wife and family members 5. Family elders 6. Service provider(s) 7. Other (specify) 8. DK 9. Refused 	
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RESILIENCE IN THE SAHEL ENHANCED (RISE)



Baseline Survey: HOUSEHOLD FOOD CONSUMPTION SURVEY AND CHILD ANTHROPOMETRY QUESTIONNAIRE

MODULE 1: HOUSEHOLD IDENTIFICATION COVER SHEET

DATE OF SURVEY	_ _	_ _	_2_ _0_ _1_ _5_
	Day	Month	Year

100: Country	101: Region	102: Province/District	103: Commune	104: Village
..... _ _ _ _ _ _ _ _ _ _ _

GPS UNIT (UTM reading)				109	110
105: Accuracy	106: ELEV	107: Lat	108: Long	Enumerator Code	Supervisor Code
.....	_ _	_ _

111: Compound	112: Household
Compound ID: _ _ _ _	Household ID in Village: _ _ _ _
Full Name of Head of Compound:	Household ID in Sample: _ _
	Full Name of Head of Household:

_____ Phone Number of Head of Compound: _____	_____ Phone Number of Head of Household: _____
---	--

113		Interview status comments: _____ _____ _____ _____ _____
Interview result (circle code)		
Fully completed1	_	
Partially completed2		
Refusal.....3		
Absent.....4		
Other5		

<p>Supervisor's clearance</p> <p>"I certify that this questionnaire has been collected in accordance with the survey design and RISE survey guidance."</p> <p>Supervisor's Name: _____</p> <p>Date of Verification: _ _ / _ _ / _ _ _ _ </p>
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Confidential

INFORMED CONSENT SIGNATURE PAGE

Thank you for the opportunity to speak with you. We are from SAREL, a USAID-funded project in partnership with the Governments of Niger and Burkina Faso. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing of households in this area. Your household has been selected to participate in an interview on topics such as your dwelling characteristics, household expenditures and assets, household food consumption and nutrition of children. The survey includes questions about the household generally, and questions about individuals within your household, if applicable. These questions in total will take approximately one and half hours (1h30) 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.

Do you have any questions about the survey or what I have just said? If in the future you have any questions regarding the survey and the interview, or concerns or complaints we welcome you to contact the USAID/SAREL Project (**Stephen Reid** | Chief of Party, Sahel Resilience Learning (SAREL) Project / Tel. : 227-9663-0291 | 227-9025-7197 / sreid@sarelproject.com). We will leave one copy of this form for you so that you will have record of this contact information and about the study.

	Name	Consent to participate in survey (Insert code)		Signature or mark
		YES=1	NO=2	
1		<input type="checkbox"/>	<input type="checkbox"/>	
2		<input type="checkbox"/>	<input type="checkbox"/>	
3		<input type="checkbox"/>	<input type="checkbox"/>	
4		<input type="checkbox"/>	<input type="checkbox"/>	
5		<input type="checkbox"/>	<input type="checkbox"/>	
6		<input type="checkbox"/>	<input type="checkbox"/>	
7		<input type="checkbox"/>	<input type="checkbox"/>	
8		<input type="checkbox"/>	<input type="checkbox"/>	
9		<input type="checkbox"/>	<input type="checkbox"/>	
10		<input type="checkbox"/>	<input type="checkbox"/>	

MODULE 8_E1. FOOD CONSUMPTION OVER PAST 7 DAYS

Ask these questions about the consumption/expenditures of all household members. Ask whoever is most knowledgeable about the food the household members have eaten over the past 7 days, as well as any non-food items that household members have bought.

Note: Quantities are often reported in local units of measure. Any unit listed must be able to be converted to a standardized unit. This conversion will happen during data analysis. It should not be done in the field by the enumerator.

INCLUDE FOOD EATEN BOTH COMMUNALLY IN THE HOUSEHOLD AND SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME		Over the past one week (7 days), did you or others in your household eat any [food]?	How much [food] in total did your household eat in the past week?	How much [food] came from purchases?	How much [food] did you spend on what was eaten last week?	How much [food] came from own-production?	How much [food] came from gifts and other sources?				
Code		E1.01	E1.02a Quantity	E1.02b Unit	E1.03a Quantity	E1.03b Unit	E1.04 (CFA F)	E1.05a Quantity	E1.05b Unit	E1.06a Quantity	E1.06b Unit
	Cereals, grains and cereal products (Category 1)										
101	Maize flour	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
102	Wheat flour	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
103	Cassava flour (attiéké, tapioca, gari, etc.)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
104	Beans four (cowpea flour)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
105	Maize	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
106	Millet	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
107	Rice	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
108	Sorghum	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
109	Fonio	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
110	Other cereals	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
111	Pasta (spaghetti, macaroni, pasta)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
112	Bread (wheat, maize)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
113	Biscuits	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
114	Fritter, fried dough	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
115	Flat cake, griddlecake (rice, corn, etc.)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Units of measure code list

01 Grams	02 Kilograms	03 Quintal	04 Stack	05 Tia	06 Basket	07 « Tongolo »	08 50 kg bag	09 100 kg bag	10 Pack	11 Plastic bag	12 Bundles	13 Pieces
14 Bars	15 Boxes	16 Leaves	17 Liters	18 Centiliters	19 Piles	20 Unit	21 « Yorouba »	22 Big tomato tin	23 Glass (22cl, tea)	24 « Tine »	25 « Moudou »	26 Other

INCLUDE FOOD EATEN BOTH COMMUNALLY IN THE HOUSEHOLD AND SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME		Over the past one week (7 days), did you or others in your household eat any [food]?	How much [food] in total did your household eat in the past week?	How much [food] came from purchases?		How much [food] did you spend on what was eaten last week? <i>If family ate part but not all of something they purchased, estimate only cost of what was consumed</i>	How much [food] came from own-production?	How much [food] came from gifts and other sources?			
Code		E1.01	E1.02a Quantity	E1.02b Unit	E1.03a Quantity	E1.03b Unit	E1.04 (CFA F)	E1.05a Quantity	E1.05b Unit	E1.06a Quantity	E1.06b Unit
116	Other pastries	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Meat, fish and eggs (Category 2)											
201	Beef	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
202	Goat	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
203	Mutton	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
204	Poultry/chicken	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
205	Camel	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
206	Pork	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
207	Eggs	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
208	Bush meat	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
209	Other meat	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
210	Fresh fish	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
211	Smoked fish	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
212	Dried fish	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
213	Tinned fish	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
214	Other (specify)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fruit (Category 3)											
301	Mango	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
302	Pineapple	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
303	Orange	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
304	Other citrus fruits (tangerine, lemon grapefruit)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
305	Banana	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
306	Watermelon	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Units of measure code list

01 Grams	02 Kilograms	03 Quintal	04 Stack	05 Tia	06 Basket	07 « Tongolo »	08 50 kg bag	09 100 kg bag	10 Pack	11 Plastic bag	12 Bundles	13 Pieces
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Code		E1.01	E1.02a Quantity	E1.02b Unit	E1.03a Quantity	E1.03b Unit	E1.04 (CFA F)	E1.05a Quantity	E1.05b Unit	E1.06a Quantity	E1.06b Unit
307	Dates										
308	Sugarcane										
309	Melon										
310	Palm-tree (fruit)										
311	Kola nut										
312	Cactus fruit										
313	Guava										
314	Strawberry										
315	Other (specify)										
	Milk and Dairy Products (Category 4)										
401	Fresh milk										
402	Curdled milk										
403	Powder milk										
404	Cheese										
405	Butter										
406	Yogurt (Solani, etc.)										
407	Other dairy products										
	Market garden produce (Category 5)										
501	Onion										
502	Lettuce (salad)										
503	Cabbage										
504	Eggplant										

Units of measure code list												
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Code		E1.01	E1.02a Quantity	E1.02b Unit	E1.03a Quantity	E1.03b Unit	E1.04 (CFA F)	E1.05a Quantity	E1.05b Unit	E1.06a Quantity	E1.06b Unit
505	Carrot										
506	Green beans										
507	Cucumber										
508	Field peas										
509	Squash and zucchini										
510	Fresh tomato										
511	Dried tomato										
512	Dried okra										
513	Dried beans										
514	Vouandzou										
515	Other dried vegetables										
516	In-shell peanuts										
517	Peanut kernel										
518	Kapok flower (« voaga »)										
519	Baobab leaves										
520	Moringa leaves										
521	Sorrel leaves										
522	Yodo (« foye gouto »)										
523	Other vegetables or leaves										
524	Malahia (« Fakkou »)										
Sugar, honey, fats, and oil (Category 6)											
601	Sugar										
602	Honey										

Units of measure code list												
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Code		E1.01	E1.02a Quantity	E1.02b Unit	E1.03a Quantity	E1.03b Unit	E1.04 (CFA F)	E1.05a Quantity	E1.05b Unit	E1.06a Quantity	E1.06b Unit
603	Palm oil										
604	Shea butter										
605	Peanut oil										
606	Other oils (soy, sesame, maize, etc. to be specified)										
607	Peanut paste										
608	Other (specify)										
Beverages and energizers											
701	Water										
702	Tea										
703	Coffee in pot or bag										
704	Chocolate										
705	Soft drinks/sodas, carbonated drinks										
706	Fruit juice										
707	Local beer (« dolo »)										
708	Locally brewed liquor										
709	Spirits (whiskey, gin, cognac)										
710	Tobacco (chewing, or snuff, smoking)										
711	Cigarette										
712	Other tisanes and infusions										
713	Other (specify)										
Spices and miscellaneous (Category 8)											
801	Salt										
802	Pepper										

Units of measure code list

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Code		E1.01	E1.02a Quantity	E1.02b Unit	E1.03a Quantity	E1.03b Unit	E1.04 (CFA F)	E1.05a Quantity	E1.05b Unit	E1.06a Quantity	E1.06b Unit
803	Hot pepper	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
804	Maggi seasoning	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
805	« Soubala »	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
806	Tomato concentrate	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
807	Peanut cake (« couracoura », « koulikouli »)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
808	Garlic	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
809	Ginger	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
810	Other spices (to be specified)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Tubers (Category 9)											
901	Cassava	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
902	Yam	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
903	Irish potato	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
904	Taro	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
905	Sweet potato	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
906	Other tubers (to be specified)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Prepared dishes (Category 10)											
1001	Millet ball and milk	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1002	Millet ball without milk/milky porridge	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1003	Millet and green leaves dish (no meat, no fish)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1004	Sorghum and green leaves (no meat, no fish)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1005	Maize and green leaves dish (no meat, no fish)	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1006	Other millet, sorghum or maize-based dishes	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1007	Boiled beans	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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Code		E1.01	E1.02a Quantity	E1.02b Unit	E1.03a Quantity	E1.03b Unit	E1.04 (CFA F)	E1.05a Quantity	E1.05b Unit	E1.06a Quantity	E1.06b Unit
1008	Rice and cowpea	<input type="checkbox"/>					<input type="text"/>				
1009	Rice and baobab leaves sauce	<input type="checkbox"/>					<input type="text"/>				
1010	Rice and tomato sauce	<input type="checkbox"/>					<input type="text"/>				
1011	Jollof rice and fish/chicken	<input type="checkbox"/>					<input type="text"/>				
1012	Rice and peanut sauce	<input type="checkbox"/>					<input type="text"/>				
1013	Pasta with no meat, no chicken, no fish	<input type="checkbox"/>					<input type="text"/>				
1014	Hot coffee (bought from a seller)	<input type="checkbox"/>					<input type="text"/>				
1015	Hot tea, coffee (bought from a seller)	<input type="checkbox"/>					<input type="text"/>				

Units of measure code list												
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MODULE 15: HOUSEHOLD DIETARY DIVERSITY

Ask these questions of whoever is most knowledgeable about the food consumption of household members. Read the list of foods. Choose “yes” if anyone in the household ate at least one of the food items under each category. Choose “no” if no one in the household ate the food.

Now I would like to ask you about the types of foods that you or anyone else in your household ate yesterday during the day and at night. Please include all food eaten both at your home and away from home.





N°	QUESTION WORDING	ANSWERS/CODES	
1501	Any bread, rice, pasta, fritters, biscuits, or other foods made from millet, sorghum, maize, rice, wheat?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1502	Any food made from Irish potato, yam, sweet potato, cassava, taro and other tubers?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1503	Any food made with vegetables such as onions, cabbage, green leafy vegetables, gathered wild green leaves, tomato, cucumber, mushroom, green pepper, beet root, garlic, or carrots?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1504	Any food or fruit juices made from fruits such as mango, banana, oranges, pineapple, papaya, guava, avocado, wild fruit, or apple?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1505	Any food made from meat such as beef, lamb, goat, wild game, chicken, or other birds, other meats?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1506	Any eggs?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1507	Any fresh fish, smoked fish, fish soup/sauce or dried fish or shellfish?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1508	Any foods made from beans (white, brown, horse), peas, lentils, chick peas, rapeseed, linseed, sesame, sunflower, vetch, soybean flour or nuts (groundnuts, groundnut flour)?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/>
1509	Any cheese, yogurt, milk, powder milk, butter or other milk products?	1. Yes 2. No 8. DK	<input type="checkbox"/>

		9. Refused	
1510	Any foods made with oil, margarine, fat, or butter?	1. Yes 2. No 8. DK 9. Refused	__
1511	Any sugar, sugar cane, tamarind or honey?	1. Yes 2. No 8. DK 9. Refused	__
1512	Any other foods, such as condiments, traditional beer, beer, wine, coffee or tea?	1. Yes 2. No 8. DK 9. Refused	__

MODULE 16: HOUSEHOLD HUNGER

Ask these questions of whoever is most knowledgeable of household members.

N°	QUESTION WORDING	CODES/ANSWERS	
1601	In the past four weeks, did you worry that your household would not have enough food?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1601a	In the past four weeks, how often did you worry that your household would not have enough food?	1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1602	In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1602a	How often were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1603	In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1603a	How often did you or any household member have to eat a limited variety of foods due to a lack of resources?	1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1604	In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	1. Yes 2. No 8. DK 9. Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1604a	How often did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1605	In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	1. Yes 2. No 8. DK	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

N°	QUESTION WORDING	CODES/ANSWERS	
1605a	How often did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	9. Refused 1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	_
1606	In the past four weeks, did you or any other household member have to eat fewer meals in a day because there was not enough food?	1. Yes 2. No 8. DK 9. Refused  Skip to Q1607	_
1606a	How often did you or any other household member have to eat fewer meals in a day because there was not enough food?	1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	_
1607	In the past four weeks, was there ever no food to eat (of any kind) in your household because of lack of resources to get food?	1. Yes 2. No 8. DK 9. Refused  Skip to Q1608	_
1607a	How often was there ever no food to eat (of any kind) in your household because of lack of resources to get food?	1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	_
1608	In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?	1. Yes 2. No 8. DK 9. Refused  Skip to Q1609	_
1608a	How often did you or any household member go to sleep at night hungry because there was not enough food?	1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	_
1609	In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?	1. Yes 2. No 8. DK 9. Refused  Skip to next module	_
1609a	How often did you or any household member go a whole day and night without eating anything because there was not enough food?	1. Rarely (once or twice in the past four weeks) 2. Sometimes (three to ten times in the past four weeks) 3. Often (more than ten times in the past four weeks) 8. DK 9. Refused	_

MODULE 17. CHILD ANTHROPOMETRY

Ask these questions of the primary caregiver of each child aged 0–59 months in the household, as identified in Module 2. Check to see if each caregiver has given consent to be interviewed on the signature page of the informed consent form. If a caregiver has not yet given consent, return to Module 1a and gain caregiver consent before proceeding.

Fill in the information for q1701-q1703 for all of the children identified in q212 of Module 2.

N°	QUESTION WORDING	CODES/ANSWERS						
		Child 1	Child 2	Child 3	Child 4	Child 5	Child 6	Child 7
1701	Record caregiver's number from Module 2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1702	Record child's number from Module 2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1703	Record child's first name
1704	What is child's sex?	1 Boy 2 Girl	1 Boy 2 Girl	1 Boy 2 Girl	1 Boy 2 Girl	1 Boy 2 Girl	1 Boy 2 Girl	1 Boy 2 Girl
		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
AGE OF CHILD								
1705	When was [child's name] born (dd/mm/yy)?	<input type="text"/> Day	<input type="text"/> Day	<input type="text"/> Day	<input type="text"/> Day	<input type="text"/> Day	<input type="text"/> Day	<input type="text"/> Day
	If the respondent does not know the exact birth date ask: Does [child's name] have a health/vaccination card with the birth date recorded?	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month
	If the health/vaccination card is shown and the respondent confirms the information is correct, record the date of birth as documented on the card. If the day is unknown, put 88 in the space If the month is unknown, put 88 in the space	<input type="text"/> Year	<input type="text"/> Year	<input type="text"/> Year	<input type="text"/> Year	<input type="text"/> Year	<input type="text"/> Year	<input type="text"/> Year
1706	How old was [child's name] at [his/her] last birthday? Record age in completed years.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1707	How many months old is [child's name]? Record age in completed months.	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month	<input type="text"/> Month

N°	QUESTION WORDING	CODES/ANSWERS						
		Child 1	Child 2	Child 3	Child 4	Child 5	Child 6	Child 7
1708	Check 1707. Is the child under 60 months [age months]? <input type="checkbox"/> 1. Yes <input type="checkbox"/> 2. No → Skip to next child or end module	□	□	□	□	□	□	□
1709	Is the child available to be weighed and measured? <input type="checkbox"/> 1. Yes <input type="checkbox"/> 2. YES (DISABLED) <input type="checkbox"/> 3. NO (ABSENT) <input type="checkbox"/> 4. NO (SICK) → Skip to next child or end module	□	□	□	□	□	□	□
WEIGHT OF CHILD								
1710	Does child have edema? (observe if child shows signs of swelling of the feet) <input type="checkbox"/> 1. Yes <input type="checkbox"/> 2. No	□	□	□	□	□	□	□
1711	Weigh the child (Weight in kilograms)	□□□,□□	□□□,□□	□□□,□□	□□□,□□	□□□,□□	□□□,□□	□□□,□□
HEIGHT OF CHILD								
1712	Measure the child (Height in centimeters) <i>Children under 24 months should be measured lying down; Children 24 months or older should be measured standing up.</i>	□□□□,□	□□□□,□	□□□□,□	□□□□,□	□□□□,□	□□□□,□	□□□□,□

MODULE 17a. CHILD NUTRITIONAL STATUS AND FEEDING PRACTICES

Exclusive Breastfeeding and Minimum Acceptable Diet (MAD)

N°	QUESTION WORDING	CODES/ANSWERS						
		Child 1	Child 2	Child 3	Child 4	Child 5	Child 6	Child 7
17b01	Is (child's name) under 24 months? Check 1707. Is the child under 24 months [age months]?	1. Yes 2. No If "no" skip to next <input type="checkbox"/>	1. Yes 2. No If "no" skip to next <input type="checkbox"/>	1. Yes 2. No If "no" skip to next <input type="checkbox"/>	1. Yes 2. No If "no" skip to next <input type="checkbox"/>	1. Yes 2. No If "no" skip to next <input type="checkbox"/>	1. Yes 2. No If "no" skip to next <input type="checkbox"/>	1. Yes 2. No If "no" skip to next <input type="checkbox"/>
17b02	Has (child's name) already been breastfed?	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b04 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b04 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b04 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b04 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b04 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b04 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b04 <input type="checkbox"/>
17b03	Has (child's name) been breastfed during the day or at night?	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b05 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b05 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b05 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b05 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b05 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b05 <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b05 <input type="checkbox"/>
17b04	Sometimes babies are breastfed in different ways, for example with a spoon, a cup or a bottle. This can occur when the mother cannot always be with the baby. Sometimes babies are breastfed by another woman or from breast milk donated by another woman with a spoon, cup, bottle or another way. This can happen if a mother cannot breastfeed her baby. Has (child's name) got breast milk using one of these methods during the day or night yesterday?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b05	Now I would like to ask you about certain drugs and vitamins which are sometimes given to infants. Has (child's name) received vitamin drops or other drugs as drops yesterday during the day or evening?	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused

N°	QUESTION WORDING	CODES/ANSWERS						
		Child 1	Child 2	Child 3	Child 4	Child 5	Child 6	Child 7
		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
17b06	Has (child's name) received oral rehydration solution during the day or night yesterday?	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>
Now, I would like to ask you about some liquids (child's name) may have taken yesterday during the day or night yesterday. Do you know if (child's name) had:								
17b07	Ordinary water (without bubbles or carbonation) for example, from a well, spring, or tap?	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>	1. Yes 2. No 8. DK 9. Refused <input type="text"/>
17b08	Infant preparations such as France lait, Nativa, other dairy products such as Nestlé for children?	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b10 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b10 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b10 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b10 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b10 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b10 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b10 <input type="text"/>
17b09	How many times in the day and in the night has (child's name) consumed a preparation of infant formula yesterday?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
17b10	Has (child's name) drunk canned, powdered or fresh milk?	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b12 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b12 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b12 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b12 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b12 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b12 <input type="text"/>	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b12 <input type="text"/>
17b11	How many times in the day and in the night has (child's name) drunk that milk yesterday?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
17b12	Has (child's name) drunk juice or beverages?	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused

N°	QUESTION WORDING	CODES/ANSWERS						
		Child 1	Child 2	Child 3	Child 4	Child 5	Child 6	Child 7
17b13	Clear broth	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused
17b14	Yogurt	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b16	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b16	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b16	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b16	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b16	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b16	1. Yes 2. No 8. DK 9. Refused ↓ Skip to 17b16
17b15	How many times in the day or in the night has (child's name) eaten yogurt yesterday?							
17b16	Has (child's name) eaten porridge such as cowpea puree, porridge, enriched porridge (« koko ») Misola, CSB, etc.?	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused
17b17	Other liquids such as tea, decoction, sugar water, « rouboutou » (Coranic verses written on a slate and washed to give children)?	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused
17b18	Other liquids?	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused
Yesterday during the day and in the night, has (child's name) drunk/eaten (food under the group)								
CIRCLE (1) IF RESPONDENT SAYS « YES », (2) IF RESPONDENT SAYS « NO », (8) IF S/HE DOES NOT KNOW AND (9) IF S/HE REFUSES								
17b19	Cereal-based foods such as bread, biscuit, cake, fritters, couscous, rice, pasta, porridge, cereal or other foods made from corn, rice, fonio, wheat (« bulgur », « doumé »), sorghum, and millet?	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused	1. Yes 2. No 8. DK 9. Refused

N°	QUESTION WORDING	CODES/ANSWERS						
		Child 1	Child 2	Child 3	Child 4	Child 5	Child 6	Child 7
17b20	Carrots, squash, monkey bread, « gonda » (papaya) whose inside color is yellowish or orange-yellow?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b21	Potatoes, yams, cassava, taro, any food made of roots or tubers?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b22	Spinach, lettuce, sorrel, « molohiya » (« fakkou »), baobab leaf (« kouka »), « yodo », okra leaf, Moringa, « tchapatta », other local dark green leafy vegetables?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b23	Ripe mangoes, ripe papayas, guava, melon?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b24	Other fruits or vegetables such as cabbage, cauliflower, watermelon, squash/zucchini, onion, tomato, eggplant (« yalo »), green beans?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b25	Liver, kidney, heart, or other offals?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b26	Any meat such as beef, pork, sheep, goat, chicken, duck?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b27	Eggs?	1. Yes	1. Yes	1. Yes	1. Yes	1. Yes	1. Yes	1. Yes

N°	QUESTION WORDING	CODES/ANSWERS						
		Child 1	Child 2	Child 3	Child 4	Child 5	Child 6	Child 7
		2. No 8. DK 9. Refused <input type="checkbox"/>	2. No 8. DK 9. Refused <input type="checkbox"/>	2. No 8. DK 9. Refused <input type="checkbox"/>	2. No 8. DK 9. Refused <input type="checkbox"/>	2. No 8. DK 9. Refused <input type="checkbox"/>	2. No 8. DK 9. Refused <input type="checkbox"/>	2. No 8. DK 9. Refused <input type="checkbox"/>
17b28	Fresh or dried fish, shellfish, seafood?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b29	Any food made from beans, peas, lentils or beans, « vouandzou »/cowpea (« dan-wari »), néré/« soumbala »?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b30	Cheese, yogurt or other dairy products?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b31	Any oil, grease, or butter or any food based on any of these products?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b32	Any sugary food such as chocolates, candies, sweets, pastries, cakes, cookies?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b33	Any seasoning for flavor, such as pepper, spices, herbs or fish powder?	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>	1. Yes 2. No 8. DK 9. Refused <input type="checkbox"/>
17b34	Any larvae, snails, insects?	1. Yes	1. Yes	1. Yes	1. Yes	1. Yes	1. Yes	1. Yes

N°	QUESTION WORDING	CODES/ANSWERS						
		Child 1	Child 2	Child 3	Child 4	Child 5	Child 6	Child 7
		2. No 8. DK 9. Refused _	2. No 8. DK 9. Refused _	2. No 8. DK 9. Refused _	2. No 8. DK 9. Refused _	2. No 8. DK 9. Refused _	2. No 8. DK 9. Refused _	2. No 8. DK 9. Refused _
17b35	Any foods made of red palm oil, red palm nut or red palm nut pulp sauce?	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _
17b36	Has [child's name] eaten any solid, semi-solid or soft food during the day or in the night yesterday?	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _	1. Yes 2. No 8. DK 9. Refused _
17b37	How many times has [child's name] eaten any solid, semi-solid or soft food other than liquids during the day or in the night yesterday?	_ _	_ _	_ _	_ _	_ _	_ _	_ _

****THANK YOU****

After the interview thank the respondent for giving you his/her time and for the co-operation in providing the information. Inform them that you may possibly be returning to collect more information or seek any necessary clarification on the information provided at later date. At this point invite the respondent to ask you any questions that he/she might have. Answer where you can. If you do not know the answer(s), tell the respondent that his/her questions will be forwarded to a relevant person who can respond.



RESILIENCE IN THE SAHEL ENHANCED (RISE)



Baseline Survey: VILLAGE QUESTIONNAIRE

MODULE 1: VILLAGE IDENTIFICATION COVER SHEET

DATE OF SURVEY	_ _ Day	_ _ Month	_2_ _ _0_ _ _1_ _ _5_ Year
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100: Country	101: Region	102: Province/District	103: Commune	104: Village
..... _ _ _ _ _ _ _ _ _ _ _

GPS UNIT (UTM reading)				109	110
105: Accuracy	106: ELEV	107: Lat	108: Long	Enumerator Code	Supervisor Code
.....	_ _	_ _

At least three respondents must be included.

<u>Respondents' Full Name</u>	<u>Telephone Number</u>
1.	
2.	
3.	
4.	
5.	
6.	

Confidential

INFORMED CONSENT SIGNATURE PAGE

Thank you for the opportunity to speak with you. We are from SAREL, a USAID-funded project in partnership with the Governments of Niger and Burkina Faso. We are conducting a survey to learn about agriculture, food security, food consumption, nutrition and wellbeing of households in this area. Your community has been selected to participate in an interview on topics such as the types of services available here, the community organizations, and the stressors that have affected you. These questions in total will take approximately one hour 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.

Do you have any questions about the survey or what I have just said? If in the future you have any questions regarding the survey and the interview, or concerns or complaints we welcome you to contact the USAID/SAREL Project (**Stephen Reid** | Chief of Party, Sahel Resilience Learning (SAREL) Project / Tel. : 227-9663-0291 | 227-9025-7197 / sreid@sarelproject.com). We will leave one copy of this form for you so that you will have record of this contact information and about the study.

	Name	Consent to participate in survey (Insert code)		Signature or mark
		YES=1	NO=2	
1		<input type="checkbox"/>	<input type="checkbox"/>	
2		<input type="checkbox"/>	<input type="checkbox"/>	
3		<input type="checkbox"/>	<input type="checkbox"/>	
4		<input type="checkbox"/>	<input type="checkbox"/>	
5		<input type="checkbox"/>	<input type="checkbox"/>	
6		<input type="checkbox"/>	<input type="checkbox"/>	
7		<input type="checkbox"/>	<input type="checkbox"/>	
8		<input type="checkbox"/>	<input type="checkbox"/>	
9		<input type="checkbox"/>	<input type="checkbox"/>	
10		<input type="checkbox"/>	<input type="checkbox"/>	
11		<input type="checkbox"/>	<input type="checkbox"/>	

MODULE 2. VILLAGE CHARACTERISTICS

N°	QUESTION WORDING	CODES/ANSWERS		
201	What is the total population of this village?			_ _ _ _ _ _ _
202	In the last five years, has the population of this village stayed the same, increased or decreased?	1. Stayed the same 2. Increased 3. Decreased		_
203	What are the three largest ethnic groups in this village? (specify)	Burkina Faso Ethnic Groups	Niger Ethnic Groups	1 st _ _ _ 2 nd _ _ _ 3 rd _ _ _
		11. Mossi 12. Fulfuldé/Peul 13. Gourmantché 14. Songhaï/Sonraï 15. Touareg 16. Bella	21. Haoussa 22. Djerma 23. Sonraï 24. Peul 25. Gourmantché 26. Touareg 27. Bella	
204	How far is this village from the nearest town? (kms) <i>Town: e.g. presence of important educational centers like schools, integrated health centers or hospitals, banks, business services, major markets, input supplies facilities, other facilities...</i>			_ _ _ _
205	How far is this village from the zonal capital? (kms)			_ _ _ _
206	For how many years has this village existed?	1. More than 20 years 2. Between 10 and 20 years 3. Less than 10 years 8. DK		_
207	In addition to the rainy season campaign does your village have a second cropping season?	1. Yes 2. No		_
208	Does this village have corridors and communal grazing areas?	1. Yes 2. No (Skip to q211)		_
209	If yes, is there a group in the village that decides who can use these grazing areas and when they can use them?	1. Yes 2. No		_
210	In the last year, has there ever been a problem of too many animals on the communal grazing land?	1. Yes 2. No		_
211	Does this community have a communal water source for livestock?	1. Yes 2. No (Skip to q214)		_

N°	QUESTION WORDING	CODES/ANSWERS	
212	What is this communal water source?	1. River 2. Pond 3. Borehole 4. Well	_
213	In the last year, has there ever been a time when there was not enough water for all the animals?	1. Yes 2. No	_
214	Do people in this community get their firewood from communal land?	1. Yes 2. No (Skip to q217)	_
215	If yes, is there a group in the community that decides who can gather the wood and how much?	1. Yes 2. No	_
216	In the last year, has there ever been a problem of not enough firewood on the communal land?	1. Yes 2. No	_
217	Is there a water users' group that manages the water used for irrigation in this community? (Enter N/A if the village does not practice irrigation)	1. Yes 2. No 3. N/A	_

MODULE 3. COMMUNITY INFRASTRUCTURE AND SERVICES

N°	QUESTION WORDING	CODES/ANSWERS	
WATER			
301	Does this village have access to piped water?	1. Yes 2. No (Skip to q304)	<input type="checkbox"/>
302	If yes, is the water in public standpipes or piped into houses?	1. Public standpipes 2. Piped into houses 3. Public standpipes and piped into houses	<input type="checkbox"/>
303	What share of the households in the village has access to piped water?	1. All households 2. Most of the households 3. About half of the households 4. Less than half of the households 5. Very few	<input type="checkbox"/>
304	What are the main sources of drinking water supply in the dry season?	01. Tube wells 02. Public standpipes 03. Protected hand-dug wells 04. Protected springs 05. Rainwater collection 06. Ponds and rivers 07. Unprotected springs/wells 08. Truck/vendor 09. Borehole 10. Piped into houses 11. Other (specify) _____	1 st <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 2 rd <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 3 rd <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
305	What are the main sources of drinking water supply in the wet season?	01. Tube wells 02. Public standpipes 03. Protected hand-dug wells 04. Protected springs 05. Rainwater collection 06. Ponds and rivers 07. Unprotected springs/wells 08. Truck/vendor 09. Borehole 10. Piped into houses 11. Other (specify) _____	1 st <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 2 rd <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 3 rd <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

N°	QUESTION WORDING	CODES/ANSWERS	
ELECTRICITY			
306	Do any of the households in the village have electricity?	1. Yes 2. No (Skip to q309)	<input type="checkbox"/>
307	What share of households in the village has electricity?	1. All households 2. Most of the households 3. About half of the households 4. Less than half of the households 5. Very few	<input type="checkbox"/>
308	What is the main source of electricity?	1. Public utility 2. Generator 3. Other (specify) _____	<input type="checkbox"/>
TELEPHONE SERVICE			
309	Does this village have cell phone service?	1. Yes 2. No (Skip to q311)	<input type="checkbox"/>
310	What share of households in this village has cell phones?	1. All households 2. Most of the households 3. About half of the households 4. Less than half of the households 5. Very few	<input type="checkbox"/>
311	Does this village have public telephones?	1. Yes (Skip to q317) 2. No (Skip to q312)	<input type="checkbox"/>
312	How far from the village is the nearest public telephone? (kms)		<input type="text"/>
ROADS AND TRANSPORTATION			
313	What are the main routes used to reach this village? (multiple responses possible)	1. Paved road.....	<input type="checkbox"/>
		2. Dirt road.....	<input type="checkbox"/>
		3. Mixed paved and dirt.....	<input type="checkbox"/>
		4. Footpath.....	<input type="checkbox"/>
		5. Trail.....	<input type="checkbox"/>
		6. Other (specify)	<input type="checkbox"/>
314	Are there times of the year when people cannot travel because of poor road/trail conditions?	1. Yes 2. No	<input type="checkbox"/>
315	Is this village served by a public transport system?	1. Yes (Skip to q317) 2. No	<input type="checkbox"/>
316	How far from the village is the nearest public transport? (kms)		<input type="text"/>
317	What is the share of households in this village that uses public	1. All households	<input type="checkbox"/>

N°	QUESTION WORDING	CODES/ANSWERS	
	transportation?	2. Most of the households 3. About half of the households 4. Less than half of the households 5. Very few	
INFRASTRUCTURE			
317a	How far from the village is there a passable road that leads to the municipal capital?	1. Village (Skip to 317c) 2. Less than 1 km 3. 1 to 2 km 4. 3 to 5 km 5. More than 5 km	_
317b	Are there times of the year when people cannot access this road?	1. Yes 2. No	_
317c	How far from the village is there a passable road that leads to the departmental/provincial capital?	1. Village (Skip to 317e) 2. Less than 1 km 3. 1 to 2 km 4. 3 to 5 km 5. More than 5 km	_
317d	Are there times of the year when people cannot access this road?	1. Yes 2. No	_
317e	How far from the village is there a passable road that leads to the regional capital?	1. Village (Skip to 318) 2. Less than 1 km 3. 1 to 2 km 4. 3 to 5 km 5. More than 5 km	_
317f	Are there times of the year when people cannot access this road?	1. Yes 2. No	_
HOUSING			
318	What share of households in the village has tin (corrugated sheet metal) roofs?	1. All households 2. Most of the households 3. About half of the households 4. Less than half of the households 5. Very few 6. None	_
319a	What share of households in the village has adobe (laterite mud) housing?	1. All households	_

N°	QUESTION WORDING	CODES/ANSWERS	
		2. Most of the households 3. About half of the households 4. Less than half of the households 5. Very few 6. None	
319b	What share of households in the village has semi-solid (cement and adobe) housing?	1. All households 2. Most of the households 3. About half of the households 4. Less than half of the households 5. Very few 6. None	_
319c	What share of households in the village has solid material housing (hard)?	1. All households 2. Most of the households 3. About half of the households 4. Less than half of the households 5. Very few 6. None	_
SCHOOLS			
320	Is there a primary school in this village?	1. Yes (Skip to q322) 2. No (Skip to q321)	_
321	How far from the village is the nearest primary school? (kms)		_ _ _
322	What share of eligible school-age children attends primary school?	1. All 2. Most 3. About half 4. Less than half 5. Very few 6. None	_
323	Are there enough teachers for the primary school that the children in this village attend?	1. Yes 2. No	_
324	What is the physical condition of the primary school that the children in this village attend?	1. Very good 2. Good 3. Poor 4. Very poor	_
325	Is there a secondary school in this village?	1. Yes (Skip to q327) 2. No (Skip to q326)	_
326	How far from the village is the nearest secondary school? (kms)		_ _ _
327	What share of eligible school-age children attends secondary school?	1. All	_

N°	QUESTION WORDING	CODES/ANSWERS			
		2. Most 3. About half 4. Less than half 5. Very few			
328	Are there enough teachers for the secondary school that the children in this community attend??	1. Yes 2. No		<input type="checkbox"/>	
329	What is the physical condition of the secondary school that the children attend?	1. Very good 2. Good 3. Poor 4. Very poor		<input type="checkbox"/>	
HEALTH SERVICES					
330	Is there a health center in this village?	1. Yes (skip to q332) 2. No (Skip to q331)		<input type="checkbox"/>	
331	How far is this village from the nearest health center? (kms)			<input type="text"/>	
332	What is the physical condition of the nearest health center to this village?	1. Very good 2. Good 3. Poor 4. Very poor		<input type="checkbox"/>	
333	In the last year was there a time when people in the village needed health services but could not get them from the health center?	1. Yes 2. No (Skip to q335)		<input type="checkbox"/>	
334	If yes, why were the village members not able to get health services from the health center? (multiple responses possible) List modalities	01. No beds, health center was full.....	Yes = 1	No = 2	<input type="checkbox"/>
		02. No staff in the health center	Yes = 1	No = 2	<input type="checkbox"/>
		03. Health center was destroyed/burnt.....	Yes = 1	No = 2	<input type="checkbox"/>
		04. Security problem.....	Yes = 1	No = 2	<input type="checkbox"/>
		05. No transportation	Yes = 1	No = 2	<input type="checkbox"/>
		06. No road or poor road condition	Yes = 1	No = 2	<input type="checkbox"/>
		07. No drugs at the health center	Yes = 1	No = 2	<input type="checkbox"/>
		08. No money for services.....	Yes = 1	No = 2	<input type="checkbox"/>
		09. Quality of the health service is very poor	Yes = 1	No = 2	<input type="checkbox"/>
		10. Other (specify)_____	Yes = 1	No = 2	<input type="checkbox"/>
VETERINARY AND VALUE-ADDED ANIMAL SERVICES					
335	Is there a facility for veterinary services in this village?	1. Yes (skip to q337) 2. No (Skip to q336)		<input type="checkbox"/>	

N°	QUESTION WORDING	CODES/ANSWERS			
336	If not, what distance separates the village from the facility for veterinary services? (kms)				<input type="text"/>
337	What is the physical condition of the nearest veterinary center to this village?	1. Very good 2. Good 3. Poor 4. Very poor			<input type="text"/>
338	In the last year was there a time when people in the village needed veterinary services but could not get them from the veterinary center?	1. Yes 2. No (Skip to q340)			<input type="text"/>
339	If yes, why were the village members not able to get veterinary services from the veterinary center? (multiple responses possible) List modalities	1. No staff in the veterinary center.....	Yes = 1	No = 2	<input type="text"/>
		2. Veterinary center too busy.....	Yes = 1	No = 2	<input type="text"/>
		3. Security problem.....	Yes = 1	No = 2	<input type="text"/>
		4. No transportation.....	Yes = 1	No = 2	<input type="text"/>
		5. No road or poor road condition.....	Yes = 1	No = 2	<input type="text"/>
		6. No equipment/drugs at the veterinary center.....	Yes = 1	No = 2	<input type="text"/>
		7. No money for services.....	Yes = 1	No = 2	<input type="text"/>
		8. Quality of the services is poor.....	Yes = 1	No = 2	<input type="text"/>
		9. Other (specify).....	Yes = 1	No = 2	<input type="text"/>
340	Which services are provided by the veterinary center? (multiple responses possible) List modalities	1. Livestock vaccinations.....	Yes = 1	No = 2	<input type="text"/>
		2. Livestock antibiotics.....	Yes = 1	No = 2	<input type="text"/>
		3. De-worming.....	Yes = 1	No = 2	<input type="text"/>
		4. Dipping inoculation.....	Yes = 1	No = 2	<input type="text"/>
		5. Other treatment for diseases.....	Yes = 1	No = 2	<input type="text"/>
		6. Supplemental feeding (commercial feeding).....	Yes = 1	No = 2	<input type="text"/>
		7. Other (specify).....	Yes = 1	No = 2	<input type="text"/>
AGRICULTURAL EXTENSION SERVICES					
341	Are there agricultural extension services offered in this village?	1. Yes 2. No (Skip to q343)			<input type="text"/>
342	If yes, what agricultural extension services are provided? (multiple responses possible)	1. Seed supply.....	Yes = 1	No = 2	<input type="text"/>
		2. Fertilizer supply.....	Yes = 1	No = 2	<input type="text"/>

N°	QUESTION WORDING	CODES/ANSWERS			
	List modalities	3. Training	Yes = 1	No = 2	<input type="checkbox"/>
		4. Climate-adapted technologies (e.g., drought-tolerant seeds) ..	Yes = 1	No = 2	<input type="checkbox"/>
		5. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>
343	In the last year was there a time when people in the village needed these services but could not get them?	1. Yes 2. No (Skip to q345)			<input type="checkbox"/>
344	Is yes, why were the village members not able to get agricultural extension services? (multiple responses possible) List modalities	01. Extension service center was closed.....	Yes = 1	No = 2	<input type="checkbox"/>
		02. There was no extension worker.....	Yes = 1	No = 2	<input type="checkbox"/>
		03. Security problem.....	Yes = 1	No = 2	<input type="checkbox"/>
		04. Extension workers were not cordial.....	Yes = 1	No = 2	<input type="checkbox"/>
		05. The extension center was too far away.	Yes = 1	No = 2	<input type="checkbox"/>
		06. There was no transportation.....	Yes = 1	No = 2	<input type="checkbox"/>
		07. No road or poor road condition	Yes = 1	No = 2	<input type="checkbox"/>
		08. No money for services.....	Yes = 1	No = 2	<input type="checkbox"/>
		09. Quality of the services is poor	Yes = 1	No = 2	<input type="checkbox"/>
		10. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>
MARKETS					
345	How far away is the nearest livestock market from this village? (kms)				<input type="text"/>
346	In the last year was there a time when people in this village needed to buy or sell livestock in the market but could not?	1. Yes 2. No (Skip to q348)			<input type="checkbox"/>
347	If yes, why were the village members not able to buy or sell livestock in the market? (multiple responses possible) List modalities	1. Market closed.....	Yes = 1	No = 2	<input type="checkbox"/>
		2. No road or poor road condition.....	Yes = 1	No = 2	<input type="checkbox"/>
		3. No transportation	Yes = 1	No = 2	<input type="checkbox"/>
		4. Could not pay for transportation	Yes = 1	No = 2	<input type="checkbox"/>
		5. Security problem.....	Yes = 1	No = 2	<input type="checkbox"/>
		6. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>
348	Is there an emergency plan for livestock offtake if a drought hits?	1. Yes 2. No			<input type="checkbox"/>
349	How far away is the nearest market for selling agricultural products from this village? (kms)				<input type="text"/>
350	In the last year was there a time when people in this village needed to sell agricultural products in the market but could not?	1. Yes 2. No (Skip to q352)			<input type="checkbox"/>
351	If yes, why were people in the village not able to sell agricultural products in the market?	1. Market closed.....	Yes = 1	No = 2	<input type="checkbox"/>
		2. No road or poor road condition.....	Yes = 1	No = 2	<input type="checkbox"/>

N°	QUESTION WORDING	CODES/ANSWERS			
	(multiple responses possible) List modalities	3. No transportation	Yes = 1	No = 2	<input type="checkbox"/>
		4. Could not pay for transportation	Yes = 1	No = 2	<input type="checkbox"/>
		5. Security problem.....	Yes = 1	No = 2	<input type="checkbox"/>
		6. Other (specify)_____	Yes = 1	No = 2	<input type="checkbox"/>
352	How far away is the nearest market for purchasing agricultural inputs from this village? (kms)				<input type="checkbox"/>
353	In the last year was there a time when people in this village needed to buy agricultural inputs in the market but could not?	1. Yes 2. No (Skip to q355)			<input type="checkbox"/>
354	If yes, why were people in the village not able to buy agricultural inputs in the market? (multiple responses possible) List modalities	1. Market closed.....	Yes = 1	No = 2	<input type="checkbox"/>
		2. No road or poor road condition.....	Yes = 1	No = 2	<input type="checkbox"/>
		3. No transportation	Yes = 1	No = 2	<input type="checkbox"/>
		4. Could not pay for transportation	Yes = 1	No = 2	<input type="checkbox"/>
		5. Security problem.....	Yes = 1	No = 2	<input type="checkbox"/>
		6. Other (specify)_____	Yes = 1	No = 2	<input type="checkbox"/>
SECURITY					
355	Does this village have a security or police force?	1. Yes 2. No (Skip to q357)			<input type="checkbox"/>
356	If yes, who provides the security/police force? (multiple responses possible) List modalities	1. Local government	Yes = 1	No = 2	<input type="checkbox"/>
		2. National government.....	Yes = 1	No = 2	<input type="checkbox"/>
		3. Community members	Yes = 1	No = 2	<input type="checkbox"/>
		4. Other (specify)	Yes = 1	No = 2	<input type="checkbox"/>
357	How long does it take for security/police force to reach this village?	1. Over one hour 2. About one hour 3. Half an hour 4. Minutes 5. The code for security force in the village is ' 00 '			<input type="checkbox"/>
SAVINGS/CREDIT					
358	Are there people or institutions in this village where people can save money?	1. Yes 2. No (Skip to q360)			<input type="checkbox"/>
359	If yes, which persons or institutions provide these services? (multiple responses possible) List modalities	1. Banks.....	Yes = 1	No = 2	<input type="checkbox"/>
		2. NGO/Project	Yes = 1	No = 2	<input type="checkbox"/>
		3. Community group/Association/Group.....	Yes = 1	No = 2	<input type="checkbox"/>
		4. Friends/relatives	Yes = 1	No = 2	<input type="checkbox"/>

N°	QUESTION WORDING	CODES/ANSWERS			
		5. Shops/merchants.....	Yes = 1	No = 2	<input type="checkbox"/>
		6. Microfinance institution (MFI)	Yes = 1	No = 2	<input type="checkbox"/>
		7. Other (specify).....	Yes = 1	No = 2	<input type="checkbox"/>
360	Are there people or institutions in this village from which people can borrow money?	1. Yes 2. No (Skip to q362)			<input type="checkbox"/>
361	If yes, which persons or institutions provide these services? (multiple responses possible) List modalities	1. Banks.....	Yes = 1	No = 2	<input type="checkbox"/>
		2. NGO/Project	Yes = 1	No = 2	<input type="checkbox"/>
		3. Community group/Association/Group.....	Yes = 1	No = 2	<input type="checkbox"/>
		4. Friends/relatives	Yes = 1	No = 2	<input type="checkbox"/>
		5. Shops/merchants.....	Yes = 1	No = 2	<input type="checkbox"/>
		6. Microfinance institution (MFI)	Yes = 1	No = 2	<input type="checkbox"/>
		7. Other (specify).....	Yes = 1	No = 2	<input type="checkbox"/>
OTHER PROGRAMS AND SERVICES					
362	Are there institutions in this village where people can receive adult education or training?	1. Yes 2. No (Skip to q364)			<input type="checkbox"/>
363	If yes, who provides these services? (multiple responses possible) List modalities	1. Government.....	Yes = 1	No = 2	<input type="checkbox"/>
		2. NGO/Project	Yes = 1	No = 2	<input type="checkbox"/>
		3. Religious organization.....	Yes = 1	No = 2	<input type="checkbox"/>
		4. Community group/Association/Group.....	Yes = 1	No = 2	<input type="checkbox"/>
		5. Other (specify).....	Yes = 1	No = 2	<input type="checkbox"/>
364	Are there institutions in this village where people can receive food assistance?	1. Yes 2. No (Skip to q366)			<input type="checkbox"/>
365	If yes, who provides these services? (multiple responses possible) List modalities	1. Government.....	Yes = 1	No = 2	<input type="checkbox"/>
		2. NGO/Project	Yes = 1	No = 2	<input type="checkbox"/>
		3. Religious organization.....	Yes = 1	No = 2	<input type="checkbox"/>
		4. Community group/Association/Group.....	Yes = 1	No = 2	<input type="checkbox"/>
		5. Other (specify).....	Yes = 1	No = 2	<input type="checkbox"/>
366	Are there institutions in this village where people can receive housing materials and other non-food items assistance?	1. Yes 2. No (Skip to q368)			<input type="checkbox"/>
367	If yes, who provides these services? (multiple responses possible) List modalities	1. Government.....	Yes = 1	No = 2	<input type="checkbox"/>
		2. NGO/Project	Yes = 1	No = 2	<input type="checkbox"/>
		3. Religious organization.....	Yes = 1	No = 2	<input type="checkbox"/>
		4. Community group/Association/Group.....	Yes = 1	No = 2	<input type="checkbox"/>

N°	QUESTION WORDING	CODES/ANSWERS			
		5. Other (specify) _____	Yes = 1	No = 2	_
368	Are there people/institutions in this village from which people can receive assistance in the case of livestock losses?	1. Yes 2. No (Skip to q370)			_
369	If yes, who provides these services? (multiple responses possible) List modalities	1. Government	Yes = 1	No = 2	_
		2. NGO/Project	Yes = 1	No = 2	_
		3. Religious organization	Yes = 1	No = 2	_
		4. Community group/Association/Group.....	Yes = 1	No = 2	_
		5. Other (specify) _____	Yes = 1	No = 2	_
370	Are there people/institutions in this village from which people can receive assistance due to losses of crops?	1. Yes 2. No (Skip to next module)			_
371	If yes, who provides these services? (multiple responses possible) List modalities	1. Government	Yes = 1	No = 2	_
		2. NGO/Project	Yes = 1	No = 2	_
		3. Religious organization	Yes = 1	No = 2	_
		4. Community group/Association/Group.....	Yes = 1	No = 2	_
		5. Other (specify) _____	Yes = 1	No = 2	_

MODULE 4. COMMUNITY ORGANIZATIONS

	QUESTION WORDING AND NUMBER		
	401	402	403
TYPES OF COMMUNITY ORGANIZATION	What are the community organization groups active in this village? <i>Circle the codes of the following community organization groups that are active in this village?</i>	Who participates in this group? 1= Men 2= Women 3= Both	Which age group participates in this group? 1=Youth 2=Adults 3=Older persons 4=Everyone
List of the types of community organization	Code		
Water users' group	01	<input type="checkbox"/>	<input type="checkbox"/>
Grazing land users' group	02	<input type="checkbox"/>	<input type="checkbox"/>
Disaster planning group (SCAP RU in Niger)	03	<input type="checkbox"/>	<input type="checkbox"/>
Credit or micro-finance group	04	<input type="checkbox"/>	<input type="checkbox"/>
Mutual help group (including burial companies)	05	<input type="checkbox"/>	<input type="checkbox"/>
Trade or business associations	06	<input type="checkbox"/>	<input type="checkbox"/>
Civic group (improving community)	07	<input type="checkbox"/>	<input type="checkbox"/>
Charitable group (helping others)	08	<input type="checkbox"/>	<input type="checkbox"/>
Religious group	09	<input type="checkbox"/>	<input type="checkbox"/>
Political group	10	<input type="checkbox"/>	<input type="checkbox"/>
Women's group	11	<input type="checkbox"/>	<input type="checkbox"/>
Youth group	12	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	13	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	14	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	15	<input type="checkbox"/>	<input type="checkbox"/>
Health group	16	<input type="checkbox"/>	<input type="checkbox"/>
Students' group	17	<input type="checkbox"/>	<input type="checkbox"/>
Community/police Monitoring Group	18	<input type="checkbox"/>	<input type="checkbox"/>

MODULE 5. GOVERNMENT AND NGO PROGRAMS

N°	QUESTION WORDING	CODES/ANSWERS			
501	Were there any government programs implemented in this village in the last 5 years?	1. Yes 2. No (Skip to q503)			<input type="checkbox"/>
502	If yes, what kinds of government programs are there? (List all programs)	1. Livestock	Yes = 1	No = 2	<input type="checkbox"/>
		2. Agriculture	Yes = 1	No = 2	<input type="checkbox"/>
		3. Water	Yes = 1	No = 2	<input type="checkbox"/>
		4. Health	Yes = 1	No = 2	<input type="checkbox"/>
		5. Disaster planning	Yes = 1	No = 2	<input type="checkbox"/>
		6. Disaster response	Yes = 1	No = 2	<input type="checkbox"/>
		7. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>
		8. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>
		9. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>
503	Were there any NGO programs implemented in this village in the last 5 years?	1. Yes 2. No (Skip to next module)			<input type="checkbox"/>
504	If yes, what kinds of NGO programs are there? (List all programs)	1. Livestock	Yes = 1	No = 2	<input type="checkbox"/>
		2. Agriculture	Yes = 1	No = 2	<input type="checkbox"/>
		3. Water	Yes = 1	No = 2	<input type="checkbox"/>
		4. Health	Yes = 1	No = 2	<input type="checkbox"/>
		5. Disaster planning	Yes = 1	No = 2	<input type="checkbox"/>
		6. Disaster response	Yes = 1	No = 2	<input type="checkbox"/>
		7. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>
		8. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>
		9. Other (specify) _____	Yes = 1	No = 2	<input type="checkbox"/>

MODULE 6. SHOCKS

TYPES OF SHOCKS	QUESTION NUMBERS AND ANSWER CODES					
	601	602	603	604	605	606
SHOCK LIST	Over the past five years, what shock(s) has this village experienced? <i>Circle the shock(s) experienced by this village over the past 5 years</i>	Date (mo/year) If the month is unknown, enter the year when the shock was experienced	Date (mo/year) If the month is unknown, enter the year when the shock was experienced	Date (mo/year) If the month is unknown, enter the year when the shock was experienced	Date (mo/year) If the month is unknown, enter the year when the shock was experienced	Date (mo/year) If the month is unknown, enter the year when the shock was experienced
Climatic shocks	Code					
Excessive rains/floods	01	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Too little rain/drought	02	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Massive insect invasion	03	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Epizootic	04	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Bush fires	05	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Erosion	06	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Conflict shocks						
Land conflicts	07	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Conflicts between farmers and breeders	08	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Conflict/violence involving entire communities/villages	09	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Theft of assets/holdups (animals, crops, etc.)	10	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Economic shocks						
Sharp food price increase	11	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Unavailability of agricultural or livestock inputs	12	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Drop in agricultural or livestock product demand	13	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
High increase in price of agricultural or livestock inputs	14	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Drop in price of agricultural or livestock products	15	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Job loss by household member	16	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Abrupt end of support/regular support from outside the household	17	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____
Sudden increase in household size (including birth: triplets etc.)	18	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____

MODULE 6b. MANAGEMENT OF CLIMATE SHOCKS

N°	QUESTION WORDING	CODES/ANSWERS	
601b	Over the last 5 to 10 years have you noticed a significant change in climate in this village?	1=Yes 2=No >> Skip to next module	_
602b	If yes, list the two main effects of climate change that have had the most impact on villagers' welfare?	1=Irregular rains; 2=Poor rainfall distribution in time and space; 3=Drought; 4=Floods; 5=Poor groundwater recharge; 6=Loss of vegetation cover; 7=Disappearance of certain wild animal species; 8=Other (specify)	1 st _ _ _ 2 nd _ _ _
603b	List the three main new practices or techniques adopted in this village to address the impact of climate change	01=Improved seed; 02=Irrigation (off-season crops) 03=Mineral fertilizer 04=Organic fertilizer 05=Zai; 06=Half moon; 07=Bunds; 08=Trenches; 09=Benches (contour earth bunds); 10=Tree planting; 11=Mulching; 12=Composting 13=Fallow; 14=Cultivation techniques (seeding rate, crop rotation...); 15=Plant treatment; 16=Breed improvement; 17=Feed improvement; 18=De-worming; 19=Immunization; 20=Feed treatment/conservation; 21=Fish farming techniques; 22=Other (specify)_____	1 st _ _ _ 2 nd _ _ _ 3 rd _ _ _
604b1	What is the level of implementation of the first new practice or technique to adapt to climate change by inhabitants?	1. Very high 2. Average 3. Low 4. No implementation 5. Other (specify)_____ —	_

N°	QUESTION WORDING	CODES/ANSWERS	
604b2	What is the level of implementation of the second new practice or technique to adapt to climate change by inhabitants?	1. Very high 2. Average 3. Low 4. No implementation 5. Other (specify)_____	_
604b3	What is the level of implementation of the third new practice or technique to adapt to climate change by inhabitants?	1. Very high 2. Average 3. Low 4. No implementation 5. Other (specify)_____	_
605b	What is the level of effectiveness of adaptation to the impact of climate change in this village?	1. Very effective 2. Average 3. Low 4. Not effective at all	_
606b	In your village, are there resource people trained in techniques to cope with climate change who disseminate those techniques?	1. Yes 2. No	_

MODULE 7. LAND MANAGEMENT

N°	TYPES OF LAND TENURE	What are the types of land tenure that exist in your village?		
		1=Yes	2=No	
701.	Customary – privately held		<input type="checkbox"/>	
702.	Customary land – communally held		<input type="checkbox"/>	
703.	Leasehold		<input type="checkbox"/>	
704.	Freehold		<input type="checkbox"/>	
705.	Public land		<input type="checkbox"/>	
706.	Other (specify)		<input type="checkbox"/>	
707.	What is the main mode of acquisition of a farm in your village today? Enter the answer	1. Cash purchase 2. Allocation by the community/local authorities Inheritance 3. Obtained for free/gift..... 4. Possession taken (after deforestation) 5. Other (specify)		<input type="checkbox"/>
708	What is the second most common mode of acquisition of a farm in your village today? Enter the answer	1. Cash purchase 2. Allocation by the community/local authorities Inheritance 3. Obtained for free/gift..... 4. Possession taken (after deforestation) 5. Other (specify)		<input type="checkbox"/>

MODULE 8. GOVERNANCE

N°	QUESTION WORDING	CODES/ANSWERS	
801	What type of community governance do you have in your village?	1. Traditional 2. Formal government representative 3. Both	<input type="checkbox"/>
802	Has your village defined clear and widely accepted rules to ensure good management of natural resources?	1. Yes 2. No	<input type="checkbox"/>
803	Do you have a natural resources management-related conflict resolution committee in your village?	1. Yes 2. No (Skip to q805)	<input type="checkbox"/>
804	Is the conflict resolution committee successful in finding appropriate and sustainable solutions to conflicts that arise?	1. All 2. Most 3. About half 4. Less than half 5. Very few	<input type="checkbox"/>
805	Does your village take regular initiatives to engage with commune (municipal) and state authorities to increase the quality of public infrastructure and services (health, agriculture, education, roads, etc.)?	1. Often 2. Periodically 3. Very rarely 4. Never	<input type="checkbox"/>
806	Does your commune (municipality) have a commune (municipal) development plan?	1. Yes 2. No 3. DK	<input type="checkbox"/>
807	Does your village chief share commune (municipal) development plan implementation-related information with the public?	1. Often 2. At least once a year 3. Never 4. DK	<input type="checkbox"/>

****THANK YOU****

After the interview thank the respondents for giving you their time and for the co-operation in providing the information. Inform them that you may possibly be returning to collect more information or seek any necessary clarification on the information provided at later date. At this point invite the respondents to ask you any questions that they might have. Answer where you can. If you do not know the answer(s), tell them that their questions will be forwarded to a relevant person who can respond.

APPENDIX D – List of Sample Villages

Villages in RISE Baseline Sample – BURKINA FASO

	Region	Province	Commune	Village	Stratum	RISE Project(s)	X	Y
1	EST	Gnagna	Coalla	Ganta	H	FASO	0.074	13.524
2			Mani	Koulfo	H	REGIS-ER, FASO	0.001	13.232
3			Bilanga	Dipienga	L		0.218	12.779
4				Kabaré	L	-	0.101	12.564
5				Tobou	L		0.087	12.612
6				Benhourgou	L		0.506	12.393
7			Piela	Piéla	L		-0.140	12.719
8		Komandjari	Gayeri	Toumbenga	H	REGIS-ER, FASO	0.566	12.762
9				Kourgou	H	REGIS-ER, FASO	0.766	12.321
10			Foutouri	Tankoualou	H	REGIS-ER, FASO	0.954	12.987
11		Gourma	Matiacoali	Oubriounou	L	-	1.065	12.410
12				Boaligou	L		1.068	12.458
13				Ouro-Aou	L		0.901	12.677
14			Yamba	Bogolé	L		0.515	12.288
15				Diankongou	L		-0.118	13.283

Burkina Faso (continued)

	Region	Province	Commune	Village	Stratum	RISE Project(s)	X	Y
16	SAHEL	Yagha	Mansila	Mansila	L		0.638	13.164
17				Téparé	L		0.539	13.186
18			Solhan	H	REGIS-ER, FASO	0.495	13.318	
19			Boundore	L		0.909	13.264	
20		Soum	Tongomayel	Kobaoua	L		-1.519	13.939
21				Touronata	L		-1.329	14.245
22				Kadiel	L		-1.435	13.909
23			Arbinda	L		-0.732	14.310	
24		Seno	Gorgadji	Yirakoulga	L		-0.719	14.007
25				Boundounyouджи	L		-0.457	14.064
26			Falagountou	Falagountou	L		0.186	14.364
27				Fétobarabé	L		0.092	14.378
28		Seytenga	H	REGIS-ER	0.447	13.908		
29		Oudalan	Gorom-Gorom	Bosséye-Barabé	L		-0.332	14.539
30				Essakane-Site	L		0.025	14.395
31				Adiaréye-Diaréye	L		-0.571	14.354
32				Gorom-Gorom-Secteur 5	L		-0.232	14.439
33				Kel-Eguief	L		-0.184	14.427
34				Bidi 2	L		-0.328	14.372
35				Dambouguél	L		-0.364	14.202
36			Markoye	Markoye	L		0.034	14.645
37				Déibanga-Tafororat	L		-0.031	14.795
38				Weldé-Tondobanda	L		0.057	14.581

Burkina Faso (continued)

	Region	Province	Commune	Village	Stratum	RISE Project(s)	X	Y	
39	CENTRE-NORD	Sanmatenga	Kaya	Kaya-Secteur 4	H	VIM	1.087	13.072	
40				Kaya-Secteur 5	H	VIM	1.107	13.088	
41				Foura	H	VIM	1.300	13.188	
42				Konéan	H	VIM	0.984	13.099	
43				Basnééré	H	VIM	1.261	13.255	
44				Nongfaéré-Bangré	H	VIM	1.059	13.185	
45				Ilyalla	H	VIM	1.117	13.236	
46				Pissila	Pissila	H	VIM	0.825	13.163
47					Poulallé	H	VIM	0.850	13.094
48				Mane	Guinsa	L		-1.322	13.101
49		Forgui	L			-0.952	12.997		
50		Namisgma	Nyonranga	H	VIM	1.301	13.357		
51		Pensa	Zinibéogo	L		-0.747	13.832		
52		Namentenga	Boulsa	Belga	L		-0.491	12.878	
53				Kobouré	L		-0.519	12.620	
54				Niega	L		-0.504	12.525	
55				Konkoara-Yarsé	L		-0.586	12.540	
56			Tougouri	Tilga	H	FASO	0.596	13.109	
57	Taonsogo			H	FASO	0.641	13.230		
58	Bouroum		Bélogo	H	REGIS-ER, FASO	0.568	13.774		

Villages in RISE Baseline Sample – NIGER

	Region	Department	Commune	Village	Stratum	RISE Project(s)	X	Y
1	MARADI	Aguie	Tchadoua	Hardo Bi Seyni	H	LAHIA	7.540	13.385
2		Dakoro	Mayara	Itta Ibro	L		7.244	14.070
3				Tajae Agolla	L		7.217	13.886
4			Sabon Machi	Zabouré Maikasso	H	REGIS-ER	7.231	13.136
5		Gazaoua	Gangara	Makada	H	LAHIA	7.870	13.427
6		Guidan Roundji	Chadakori	Dan Baouchi	L		7.084	13.719
7				Garin Moutoun Daya	L		7.019	13.682
8				Guidan-Ara	L		7.067	13.684
9				Talala	L		6.990	13.680
10			Guidan Roundji	Dan Turké	H	REGIS-ER; Sawki	6.770	13.670
11		Mayahi	Kanin Bakache	Dillali Maissongo	H	Pasam-Tai	7.744	13.897
12				Zaroumey	H	Pasam-Tai	8.019	13.924
13	TILLABERI	Filingue	Kourfeye Centre	Chical Chanyassou	L		3.435	14.236
14		Gotheye	Dargol	Agoufour	L		1.417	14.033
15				Djoubourga	L		1.318	13.852
16				Goria Bangou Tara	L		1.319	13.802
17				Goungo Djoubourga	L		1.290	13.825
18				Tondi Tchiria	L		1.319	14.071
19				Wiya Banguia	L		1.135	14.007
20		Kollo	Hamdallaye	Nazey Gado Baba Koira	L		2.552	13.819
21		Ouallam	Dingazi	Banizoumbou	L		2.736	14.490

Niger (continued)

	Region	Department	Commune	Village	Stratum	RISE Project(s)	X	Y
22		Ouallam	Simiri	Alfagaydo	L		2.488	13.984
23				Gaobanda Guesse	L		2.174	14.186
24				Tchedi Kouara	L		2.201	14.052
25		Tera	Mehana	Kobachire	L		1.042	14.537
26				Mehana	L		1.137	14.398
27		ZINDER	Dungass	Dungass	Garin Dan Baba	L		9.103
28	Garin MI Garke				L		9.394	13.057
29	Kantche		Dan Barto	Zakarawa	H	Pasam-Tai	8.403	13.243
30			Daouche	Amsoudou	H	Pasam-Tai	8.410	13.500
31				Badahi Haoussa	H	Pasam-Tai	8.420	13.452
32			Ichirnawa	Daratchama	H	Pasam-Tai	8.618	13.619
33				Tacheri	H	Pasam-Tai	8.625	13.502
34			Kantche	Kourni Bougage	H	Pasam-Tai	8.420	13.570
35			Kourni	Walawa 2	H	Pasam-Tai	8.435	13.190
36			Yaouri	Guidan Elhadj Zakko	H	Pasam-Tai	8.675	13.253
37	Matameye		Maguirami Hausa	H	Pasam-Tai	8.535	13.369	
38	Magaria		Bande	Bandé	H	REGIS-ER	8.891	13.170
39				Dan Ala	H	REGIS-ER	8.835	13.103
40	Mirriah		Gouna	Garin Arewa	L		9.052	13.519
41				Tchoukoulaoua I	L		9.153	13.585
42		Zangou Malam Kadre		L		9.114	13.469	

APPENDIX E – Scope of Work for the RISE Baseline Survey

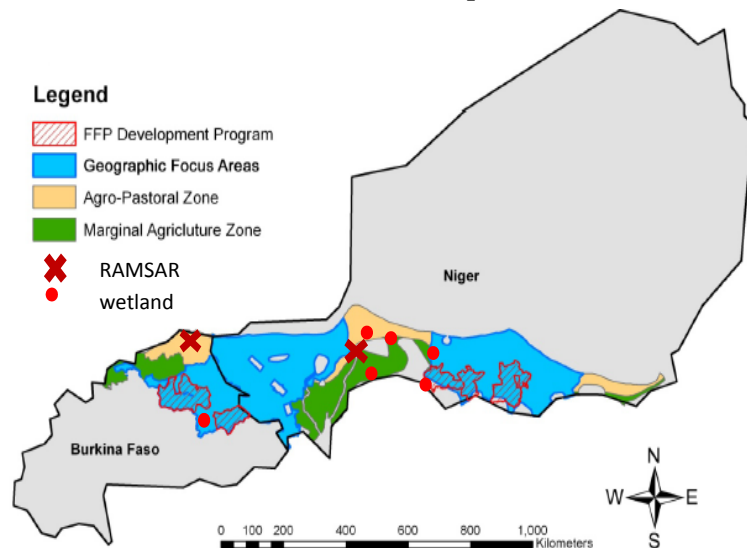
I. CONTEXT AND JUSTIFICATION OF THE SERVICE TO BE PROVIDED

The Mitchell Group, Inc. was contracted by USAID in March 2014 to implement the Sahel Resilience Learning (SAREL) project. SAREL is one of four new and ongoing projects funded by USAID that contribute to strengthening the resilience of households and communities in chronically vulnerable zones of Niger and Burkina Faso. Convinced that the impact of humanitarian and development investments in the Sahel have been considerably reduced by weak collaboration among stakeholders and the absence of rigorous approaches and systems for assessing and learning from interventions, USAID designed SAREL to boost adaptive, evidence-based, collaborative learning among resilience stakeholders. If this approach is successful, it will speed the development and adoption of resilience-enhancing best practices, innovations and models, and enable USAID and other stakeholders to better leverage and integrate scarce humanitarian and development resources.

The overall objective of SAREL is to provide monitoring, evaluation, collaboration and learning support to USAID’s resilience programming in the Sahel. The project has five specific objectives:

1. Test, expand and accelerate the adoption of proven resilience-enhancing technologies and innovations already underway;
2. Develop, test and catalyze widespread adoption of new models that integrate humanitarian and development assistance;
3. Promote ownership, build the capacity of national and regional institutions, and coordinate humanitarian and development interventions in the zone of intervention;
4. Address gender issues key to resilience and growth; and
5. Create a knowledge management database that will house a baseline assessment, ongoing monitoring data, and impact evaluations for REGIS-ER and REGIS-AG.

RISE Intervention Zone Map (in blue)



1. OBJECTIVES

Working with local Service Provider ISSP, the SAREL team developed a document outlining the survey methodology and adapted the data collection tools (manuals and questionnaires) for this

baseline survey. These tools and this methodology, validated by USAID, include a household questionnaire and a community questionnaire.⁹

In order to undertake the baseline data collection, SAREL solicits the assistance of a qualified local service provider with the necessary experience and human resources. The survey results will provide a reference point, or a baseline, in the RISE zone (in Burkina and in Niger). To undertake this survey, the Service Provider will use the adapted tools and methodology approved by USAID to collect the required data for the survey.

With this mission in mind, the Service Provider will:

- ✓ Recruit and train the field personnel (including surveyors, controllers and supervisors)
- ✓ Conduct a pilot survey and finalize the methodology and the data collection tools based on lessons learned
- ✓ Put in place and deploy the teams to conduct the quantitative surveys
- ✓ Process the data and the secondary source data from households
- ✓ Conduct data collection in the field
- ✓ Process and audit the data collected from the field
- ✓ Analyze the data
- ✓ Write a draft and final report
- ✓ Store the survey data electronically and physically

2. DELIVERABLES AND RESPONSIBILITIES

The Service Provider will conduct a baseline survey using a sample size of 2,500 households and one hundred community focus groups in the RISE intervention zone (the list of sample villages will be provided).

The general methodology of undertaking the field survey will be developed by the Service Provider in the technical proposal and shall address the following items:

- ✓ Recruitment of personnel
- ✓ Training of personnel
- ✓ Conducting the pilot survey
- ✓ The finalization of the methodology including the deployment strategy and progression of teams in the field
- ✓ Finalization of questionnaires
- ✓ Team composition
- ✓ Updating the sample frame (including listing and numbering of secondary units or households in the sample villages)
- ✓ Methodology of drawing secondary units (households)
- ✓ Communication strategy that will be put in place to ensure that the survey personnel are in permanent contact during the collection of data in the field
- ✓ Tracking strategy for completed questionnaires, and the entry and processing of survey data
- ✓ Quality control strategy for the entire process that will be put in place by the Service Provider to guarantee viable data

⁹ In order to ensure quality control of these tools and to guarantee the success of the survey, all the questionnaires will be translated into local languages.

The deliverables expected from the Service Provider are as follows:

2.1. Refining and finalizing the methodology, work plan, and tools:

a) Refining and finalizing the methodology and the work plan

During the first week of mobilization, the Service Provider will adjust and will develop its methodological proposal and its work plan. It will be updated and adapted to take into account the comments made during the design meeting which will be held immediately after notification by SAREL of the award of the contract to the Service Provider.

The technical proposal of the Service Provider must be accompanied by a timetable of work describing the chronology in the execution of the different tasks of the survey, the use of human and material resources, the submission and validation of deliverables etc.

b) Information and awareness raising for household survey

The Service Provider selected by TMG/SAREL will describe its strategy for information and raising household awareness to best ensure the administration of the survey. They will inform and sensitize traditional administrative authorities.

The results and expected deliverables are:

Results	Deliverables
The final methodology for implementation of the survey on the ground is developed	<p>Deliverable 1 : the detailed methodological proposal for implementation of the survey in the field including:</p> <ul style="list-style-type: none"> ✓ The methodological approach to survey implementation ✓ The timing of detailed work ✓ The survey communication plan

2.2. Preparing computer tools

During this step, the Service Provider must ensure that all steps are taken to prepare software for data entry. To do this, the Service Provider will:

- ✓ Develop online data entry forms
- ✓ Planning data entry from completed questionnaires

Results	Deliverables
Prepare computer tools for data collection	<p>Deliverable 2 : prepare computer tools:</p> <ul style="list-style-type: none"> ✓ Data entry forms are developed ✓ Data capture from paper questionnaires planned

2.3 Recruitment, training of field staff and conducting the pilot survey

a) Field staff recruitment

For the implementation of the survey, the Service Provider will have to create an adequate number of teams of surveyors, controllers and supervisors to cover all the sample villages in the allotted time. When recruiting, the Service Provider must ensure an even number of men and women with knowledge of local languages of the sample villages.

b) Staff training

The training of surveyors, controllers and supervisors is the key to success of the survey implementation. The Service Provider will propose a training program and a strategy for how to implement the training.

This training should cover all technical and methodological approaches and ethics that the teams must master to carry out their missions. The training must also allow teams to familiarize themselves with the data collection tools (questionnaires, anthropometric measures, etc.) and the procedures for selecting households, and interviews. The training should provide a mastery of the roles and responsibilities of different members of the survey teams essential to best ensure cooperation in the field.

The Service Provider will propose a test for candidates as well as assessment criteria for selecting candidates and assessing their ability to administer the questionnaire in the allotted time. The candidates who demonstrate a superior ability during training and the pilot survey will be retained as controllers.

The Service Provider will prepare a report about the training that illustrates the number of surveyors recruited, their profiles, the number of men and women, their level of education, place of assignment and their abilities to communicate in the language of the area.

c) The pilot survey

During the pilot survey, the Service Provider will test the effectiveness of the field data collection system in order to make necessary adjustments. This activity will be undertaken in close collaboration with the monitoring and evaluation team of SAREL and the Service Provider in charge of the quality control of the investigation.

At the end of the pilot survey, the Service Provider will develop a report on the findings of the pilot survey. The report will focus on areas for improvements in order to allow for necessary corrections before the implementation phase of the survey on the ground.

The results and expected deliverables are:

Result	Deliverables
<ul style="list-style-type: none"> - The data collection field staff are recruited and trained - The pilot survey is performed - The plan for the deployment of the teams in the field is carried out 	<p>Deliverable 3.1 : The report of the recruitment and training of field survey staff includes:</p> <ul style="list-style-type: none"> ✓ The plan and the training program ✓ The list of candidates recruited for training ✓ The list of personnel retained following training ✓ The composition of field teams formed ✓ The plan for the deployment of the teams on the

	ground ✓ etc. Deliverable 3.2 The pilot survey recruitment and training of field staff report
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2.4 Implementation of the baseline data collection survey

a) Deployment of the teams in the field

The Service Provider will deploy survey teams in accordance with the deployment plan and the agreed timetable.

b) Data collection

The Service Provider will conduct data collection according to the deployment plan. During this phase, the Service Provider will implement its communication strategy in order to ensure the best implementation of the survey. Furthermore, it should ensure the movement of the surveyors and team supervisors in accordance with the deployment plan. Logistics must be coordinated in accordance with the work plan and survey supervisors must provide technical and organizational support to surveyors in the collection of data.

The Service Provider shall ensure that agreed procedures for verifying and controlling the quality of data are applied consistently. The oversight of supervisors to ensure this application should allow to intervene quickly if systematic errors occur at the level of the administration of questions or at the level of any surveyor. Any problem encountered by the surveyors during the administration of the questionnaires should be resolved by the Service Provider. The controllers and supervisors will have to document accurately the difficulties encountered in their areas.

c) The field report

After collecting data in the field, the Service Provider will prepare a report of the progress of data collection to submit to SAREL. This report will focus on the difficulties encountered and the solutions. All reports from supervisors will be annexed to this report.

The results and expected deliverables are:

Results	Deliverables
The teams are deployed to the field The communication strategy is implemented to ensure good data collection The data are collected in the field	Deliverable 4: The survey field report describing : <ul style="list-style-type: none"> • The team deployment phases • The data collection quality control and data backup process

2.5. Data capture and processing and database composition

During this phase, the Service Provider will capture collected data. In order to guarantee the reliability in data entry, SAREL opted for the principle of the double manual input of questionnaires of the

survey, meaning that each questionnaire must be entered twice to allow for the comparison of data capture in order to immediately correct any input errors. To do this, the Service Provider will develop the data entry forms once questionnaires are validated.

The Service Provider will put in place a data entry control mechanism. During this phase, data must be audited and cleaned up. The Service Provider must format the data with SPSS, STATA and EPI INFO software and produce all the tables on the indicators needed for the production of the midline report in accordance with the work plan.

It is to be noted that all the information obtained from the survey and the data collected will be the exclusive property of SAREL, and the Service Provider will have to transfer all documents at the end of the survey to SAREL. It is to be noted that the completed (paper) questionnaire forms will also be delivered to SAREL for archiving.

The results and expected deliverables are the following:

Result	Deliverables
The survey data are processed	<p>Deliverable 5.1: Complete data are processed using the software SPSS, STATA, EPI INFO accompanied by a guide of codification ;</p> <p>Deliverable 5.2: Tables on indicators</p> <ul style="list-style-type: none"> • The tables generated on indicators • The tables on the indices of adaptability (adaptive, transformative, absorption) <p>Deliverable 5.3: The directory of the identification of households in electronic and paper files</p>

2.6. Data analysis and survey report production

The Service Provider will analyze the survey data and draft a survey report based on the tables generated by the indicators in activity 5. The Service Provider will hold a workshop to share the survey results to allow for discussion of the findings, conclusions and recommendations which will be used to finalize the survey report. In addition, at the end of this survey, the Service Provider is required to give SAREL a technical report on the overall execution of the survey.

In order to finalize the report, the Service Provider will organize a workshop to report on the baseline survey results. This workshop will bring together all the partners RISE, USAID, certain key IPs as well as the representatives of the governments of the two countries. The workshop timing as well as the list of participants will be established by SAREL.

The final report will be transmitted, in **French and in English** in three hard copies and in electronic version in the form of a CD ROM. This report will be accompanied by all the annexes (methodology, questionnaires, etc.).

The results and expected deliverables are the following:

Results	Deliverables
The baseline survey final report is produced, approved and finalized	<p>Deliverable 6.1: Draft survey report</p> <p>Deliverable 6.2: Workshop report</p>

	<p>Deliverable 6.3: Final survey report</p> <p>Deliverable 6.4: Paper questionnaires archived</p>
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3. DURATION OF THE PROJECT

The proposed duration of the data collection is estimated at five (05) months from the date of notification to the Service Provider. The collection of data in the field must start not later than the March 09, 2015 to be completed not later than the April 30, 2015.

The Service Provider will propose a detailed schedule of work for the completion of the data collection adhering to the baseline survey requirements.

4. PROFILE OF KEY EXPERTS

In order to conduct the survey, Service Providers will propose a team of key experts at a minimum responding to the criteria and to the experience described below. Any member of the team designated as "expert-key" must ensure his or her commitment for the entire time required by this Service Agreement and will not be replaced without the prior agreement of SAREL.

As a guideline, the table below gives an idea of the key experts to mobilize. But the Service Provider may propose other experts on the basis of the relevance and implementation requirements for the delivery of the data collection.

Key Personnel	Number	Duration
Coordinator	1	
Data Processing Manager	1	
General Survey Supervisor	1	

4.1. The Coordinator

The Coordinator will be the main technical manager ensuring the professional implementation of this project. He/she will oversee the management of personnel and the technical communication with SAREL. He/she will be guarantor of the quality of the work and of good management and the coordination of key staff and field supervisors. He will be responsible for the quality control of the entire process and of expected deliverables of the survey.

The Coordinator must:

- Have achieved a degree (level Bac+5 at least) in statistics, economics, sociology, agronomy, demography or any other equivalent diploma
- Have solid experience - at least ten (10) years in organization of quantitative and qualitative research of a large scale (covering at least 1500 rural households and of focus groups) particularly in Burkina Faso, Niger and/or in the sub-region
- Have a proven ability in processing, data analysis and writing and producing reports in time out.
- Have skills in systems establishment of control and verification of the quality of survey procedures
- Have solid experience in the organization of impact evaluations of rural development programs and projects;
- Have proven experience in the mobilization and management of multidisciplinary teams involving men as well as women
- Maintain close relations with the Quality Control Consultant in charge of quality control that will be recruited by SAREL

- Have experience with or familiarity with USAID programming
- Possess knowledge of the socio-political environment, cultural and economic in Burkina Faso and Niger

4.2 Data processing manager

Working under the supervision of the Coordinator, the Data Processing Manager will be responsible for the processing and management of all survey data collected. He/she will be in charge of the development of data entry forms for data entry, will ensure the entry and auditing of data and determine the final form of the database and its documentation. The Data Processing Manager will also provide the electronic archiving for the survey. He/she will:

- Participate in the recruitment and training of staff
- Ensure the development of data entry forms and planning of data entry mechanisms
- Supervise the collection of data and to ensure the auditing of data
- Produce various tables required based on the indicators according to the data analysis plan

Other tasks and responsibilities could be assigned to him/her, including responding to needs arising during the implementation of the survey.

The person responsible for the data processing will have the following qualifications:

- Have a diploma of Engineer Economist Statistician (ISE) / Demographer, economist or studiously of Statistical Work (ITS) or Computer Specialist ;
- Have solid knowledge of data processing for qualitative and quantitative surveys for households
- Be skilled with data processing software statistics (SPSS, STATA, EPI Info, etc.)
- Have experience in the survey data electronic archiving

4.3. General Survey Supervisor

Working under the supervision of the Coordinator, the General Survey Supervisor will be responsible for the organization and supervision of the field data collection.

A list of the responsibilities of the General Survey Supervisor is given below for illustrative purposes.

- Participate in the adaptation and validation of survey tools
- Participate in the recruitment and training of staff
- Establish the deployment plan for field surveyors and heads of teams and to update field work plan
- Coordinate the logistics in accordance with the work plan
- Organize periodic meetings between the heads of teams in accordance with the communication plan and make needed adjustments
- Provide technical support to surveyors regarding the collection of data

Other tasks and responsibilities could be assigned to him/her, including responding to needs arising during the implementation of the survey.

The General Survey Supervisor must have the following qualifications:

- Have a diploma (minimum level BAC+4) in sociology, economics, agronomy or any other equivalent diploma
- Have relevant experience of at least six (6) years in conducting surveys of which at least two (2) years was as a general supervisor
- Possess proven experience in the conduct of qualitative and quantitative surveys in rural areas

5. QUALITY CONTROL

In order to ensure the quality of this survey, SAREL will secure the services of an independent consultant to carry out quality control which will be conducted throughout the course of the survey. The Service Provider charged with conducting the data collection will be responsible to ensure a good collaboration with the Quality Control Consultant.

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