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Building Resilience and Adaptation to Climate Change in Malawi

Quantitative Baseline Report

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ABBREVIATIONS

ANCOVA	Analysis of Covariance
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (Federal Ministry of Economic Cooperation and Development)
BRACC	Building Resilience and Adaptation to Climate Change Program
CAPI	Computer Assisted Personal Interviewing
CLE	Community Listing Exercise
cRCT	Cluster Randomized Controlled Trial
CSA	Climate Smart Agriculture
CSI	Coping Strategy Index
CUMO	Concern Universal Microfinance Operations
CWW	Concern Worldwide
DC	District Council
DFE	Dietary Folate Equivalent
DFID	Department for International Development
DHS	Demographic and Health Survey
DoDMA	Department of Disaster Management Affairs
EA	Enumeration Area
EPA	Extension Planning Area
FAO	Food and Agriculture Organization of the United Nations
FCS	Food Consumption Score
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
GVH	Group Village Head
HDDS	Household Dietary Diversity Score
ICC	Intra-Cluster Correlation
IE	Impact Evaluation
IFPRI	International Food Policy Research Institute

IHS	Integrated Household Survey
IRB	Institutional Review Board
ITT	Intent to Treat
KPISM	Knowledge Policy and Implementation Support Manager
LATE	Local Average Treatment Effect
MASAF	Malawi Social Action Fund
MDE	Minimum Detectable Effect
MIRA	Measurement Indicators for Resilience Analysis
MPCE	Monthly Per Capita Expenditure
MWK	Malawi Kwacha
NCRSH	National Committee on Research in the Social Sciences and Humanities
NGO	Non-Governmental Organization
NRS	National Resilience Strategy
NSO	National Statistical Office
OLS	Ordinary Least Squares
PROSPER	Promoting Sustainable Partnerships for Empowered Resilience
RAE	Retinol Activity Equivalent
RCT	Randomized Controlled Trial
RNI	Recommended Nutrient Intake
SBCC	Social and Behavioral Change Communication
SCTP	Social Cash Transfer Program
SRSP	Shock-Responsive Social Protection
TA	Traditional Authority
TLU	Tropical Livestock Unit
UNDP	United Nations Development Program
UNICEF	UNICEF
UP	United Purpose
USAID	United States Agency for International Development

VSL	Village Savings and Loans
WFP	World Food Program
WHO	World Health Organization
2SLS	Two Stage Least Squares

EXECUTIVE SUMMARY

Building Resilience and Adaptation to Climate Change (BRACC) is a five year program whose main objective is to strengthen the resilience of poor and vulnerable households to withstand current and future weather and climate-related shocks and stresses in four districts in Southern Malawi: Balaka, Chikwawa, Mangochi and Phalombe. Resilience is operationalized as the ability of households to smooth consumption in response to shocks and stresses.

This baseline report introduces the evaluation context and describes the BRACC program, details the evaluation design, summarizes main findings from the baseline household survey, and tests whether the randomizations successfully balanced baseline observable characteristics across the treatment arms.

The BRACC program

The BRACC Programme was originally designed to have four main components:

- Component 1: Climate resilient livelihoods comprises mostly of localized interventions targeted at individuals, households and communities aimed at building household and community resilience to climate-related shocks.
- Component 2: Contingency funding for shock response mostly takes form of humanitarian response to shocks.
- Component 3: Strengthening national social protection systems comprises mostly of systematic approaches to improve program delivery targeted at district- and national-level governance structures.
- Component 4: Evidence, knowledge management and policy influence delivers monitoring and evaluation of Components 1, 2 and 3, facilitate learning and disseminate knowledge to influence policy.

Although a fifth component was added subsequently, its inclusion does not have much bearing on the impact evaluation (IE) design, which focuses on household-targeted interventions under Component 1 (and partly Component 2). These interventions are implemented by a consortium of Non-Governmental Organizations (NGOs), private sector organizations, and United Nations (UN) agencies under the Promoting Sustainable Partnerships for Empowered Resilience (PROSPER) Program.

Under Component 1, beneficiary households and communities are targeted with:

- Interventions that promote more sustainable and climate smart agriculture and less weather-dependent livelihoods;
- Strengthened linkages to private sector partners and market systems; business and skills training; and
- Interventions that transfer assets and promote cash savings and access to loans (e.g. VSLs) and other financial services, such as micro-insurance;
- Investments in:
  - Land, water and natural resources management;
  - Disaster risk reduction (DRR) and Early Warning Systems;

- Strengthened community mobilization and local governance structures, such as Village Civil Protection Committees; and
- Innovations and partnerships which help develop a vibrant private sector that is better able to service productive farmers.

The most vulnerable households will also be protected from shocks, when needed, through Component 2 (contingency funding for shock response) with short term, scaled up assistance to prevent them resorting to negative coping strategies and to protect gains made under Component 1. Together Components 1 and 2 are expected to result in:

- Households being able to accumulate assets, access more diverse income streams, and improve their capacity to adapt to long-term climate changes;
- Reduced exposure of households and communities to drought and floods because natural resources are managed sustainably; and
- Households, communities and districts being better prepared for shocks and faster and better targeted responses being available when needed.

Evaluation design

The impact evaluation has two purposes: (1) to provide rigorous measures of BRACC's impact on primary and secondary outcomes relative to a counterfactual, and (2) to contribute to learning about how BRACC interventions and household behavior combine to shape these impacts through a series of mechanism experiments. The specific objectives of the impact evaluation related to Purpose 1 are:

1. To estimate the effectiveness of BRACC in enabling households to smooth consumption in the face of production shocks.
2. To estimate the effectiveness of BRACC in increasing food security.
3. To establish whether BRACC interventions reduce extreme poverty.

To achieve the objectives, the impact evaluation uses both quantitative and qualitative approaches.

The goal of the quantitative evaluation is to identify the causal impact of access to the PROSPER Programme on poverty, resilience, and household food security. To estimate these impacts, the evaluation relies on a cluster randomized controlled trial, with villages serving as clusters and therefore the unit of randomization. In villages randomly assigned to the PROSPER control group, households have access to "business as usual" humanitarian aid funding if they experience negative environmental shocks, following national allocation protocols. Villages randomly assigned to the PROSPER treatment group have access to the shock-contingent humanitarian aid, but they also will be offered programming from Component 1. 224 villages were randomly selected from the Group Village Heads (GVHs) targeted by PROSPER, of which 149 were assigned to the treatment groups and 75 to the control group.

In order to estimate the impact of the PROSPER Programme on poverty, resilience, and household food security, the quantitative evaluation includes a household listing exercise and three rounds of household surveys—a baseline in 2019, a midline in 2021 and an endline in 2023—plus a baseline community survey administered to village leaders to gather information common to all households in a village.

To learn about the ‘whys’ and ‘hows’ underlying motivations for people’s actions, the IE design specifies combining qualitative and quantitative methods in sequenced and iterative fashion. The qualitative investigations (comprising focus group discussions, key informant interviews, and sometimes life-history interviews) should follow on from quantitative surveys. The three-wave panel design (i.e., baseline-midline-end-line) adopted for PROSPER, means that the evaluation sequence will have five phases:

quant(baseline)–qual–quant(midline)–qual–quant(endline)

with a possible sixth qualitative phase after the end-line survey.

The focus of the qualitative investigations is guided by an analysis of previously collected quantitative data, as well as by learning questions generated in consultation with implementing partners, DFID and other stakeholders. The quantitative baseline and midline survey data will be analyzed for overall patterns to produce a number of stylized facts about the study population. At midline and endline, the IE is designed to the use an Analysis of Covariance (ANCOVA) specification to generate the primary estimates of impact, with simple differences and difference-in-differences models as robustness checks.

Baseline data collection

Although the PROSPER consortium targets four districts in the Southern region (Balaka, Chikwawa, Mangochi and Phalombe), this report focuses on Balaka and Phalombe only, as some of the activities included in the PROSPER package had been running for several years in Chikwawa and Mangochi (implemented by some of the PROSPER consortium members under other programs) by the time of the baseline survey. Due to both this and budgetary reasons, DFID therefore suggested that the baseline survey be conducted in Balaka and Phalombe only.

The quantitative baseline data collection took place between August 2 and October 9, 2019. It consisted of household listing, which enumerated all households in the 224 study villages and generated the sampling frame from which the household sample was drawn, a household survey of 14 randomly sampled households in each study village, and a community survey with 3 to 5 key informants in each village.

This resulted in a cross-sectional dataset with information on 3,136 households across 224 communities.

Sample and population characteristics

Key findings from the quantitative baseline data collection include:

Household demographics: On average, households have 4.5 members with a dependency ratio of 1.2. 36.9 percent of households have a female head and 15.7 percent are youth-headed. Household heads are on average 41.4 years old, and 15.7percent are youth-headed. 83.1 percent of household heads have at least some education, and the highest-educated household member has on average 7.8 years of schooling. 63.9 percent of household heads are in a monogamous marriage, 5.5 percent are in a polygamous marriage, 1.3 percent were never married, with the remainder being widowed, divorced or separated. 42.3 percent of households have a disabled member. The most common disabilities are difficulty seeing (14.5 percent) and difficulty walking (13.3 percent), followed by difficulty remembering or concentrating (7.6 percent) and difficulty hearing (5.0 percent).

Wealth: The average household in the full sample holds MWK1.1 million worth of durable assets. However, as means are sensitive to extreme values, this average is skewed by the presence of a few wealthy households. The typical (median) household owns assets worth only MWK15,000. Similarly, the average household owns 0.13 Tropical Livestock Units (TLUs) of livestock (equivalent to 1 goat and 3 chickens), but the typical (median) household does not own any livestock at all. 22.9 percent of households have access to some financial services in the form of an account with a formal or informal financial institution.

Agricultural production: The vast majority (93.9 percent) of households engaged in farming during the 2018/19 agricultural season. Crop diversity was low, with households growing just 1.6 crops on average. Most farming households grew maize (98.8 percent) with mean yield of 1,186 kg/ha but median yield of only 584 kg/ha. The most common cash crop was pigeon pea (grown by 58.31 percent of farming households) with mean yield of 206 kg/ha but median yield only 54 kg/ha, followed by tobacco (6.4 percent), soybean (6.1 percent) and sunflower (5.9 percent). 82.0 percent of farming households applied some fertilizer to their land. 41.8 percent applied manure and 55.6 percent applied inorganic fertilizer. Only 9.1 percent applied chemical pesticides. 14.3 percent of farming households employed casual laborers to help with agricultural work.

Exposure to climate-related shocks: Households were exposed to a wide range of shocks, the most common of which was drought (in its widest sense including dry spells and irregular precipitation) and floods. Adjusting the frequency of the different types of shocks for severity (with 1 being equivalent to the impact of a typical drought), households faced on average 7 shocks in the 5 years preceding the baseline survey. Of these, 2.8 on average were droughts, 1.6 were floods, 1.7 other covariate (community-level) shocks and 0.9 idiosyncratic (household-level) shocks.

Social safety nets and humanitarian assistance: 53.9 percent of households benefited from one or more social safety net or humanitarian assistance program during the 12 months preceding the baseline survey. 16.2 percent of households received direct food transfers, 6.9 percent received direct cash transfers, and 16.8 percent participated in public works programs.

Economic wellbeing: The average total annual household consumption per capita was MWK136,679. The mean is, however, skewed upwards by a few outliers. The median, i.e. the annual consumption per capita of the typical household, was MWK110,615 – just below the national food poverty line of MWK111,398 and considerably below the national poverty line of MWK179,377. In fact, 50.2 percent of sample households were ultra-poor (their consumption fells below the national food poverty line) and further 28.7 percent of households were poor (they consumed more than the national food poverty line but less than the national poverty line). Only 21.1 percent of households were not poor. On average, households received income of MWK4,976 per person from agricultural enterprises, and MWK 4,130 per person from non-agricultural enterprises, but only 34.3 percent of households had a non-farm source of income. The remaining consumption came mostly from subsistence farming.

Coping strategies: Households had, on average, to rely on less preferred or less expensive food for 2.4 out of the past 7 days, borrow food or rely on help from a friend or a relative for 1.1 out of the past 7 days, rely on casual work (*ganyu*) for 3.1 out of the past 7 days, reduce the number of meals eaten in a day for 2.3 out of the past 7 days, and reduce the size of meals for 2.3 out of the past 7 days.

Food security: Over 80 percent of households reported facing food insecurity at some point during the 12 months prior to the baseline survey. Households also reported that over the 30 days prior to the survey interview, they did not have enough food (or money to buy food) on 7.1 days on average. Somebody in a household went to sleep at night hungry because of lack of food on average on 3.0

days out of the past 30, and somebody in a household went a whole day and night without eating anything because of lack of food on average 1.8 times over the past 30 days.

Nutrition: Households consumed on average 2,394 kcal per capita per day. The daily per capita availability of all reported micronutrients was on average low, as was dietary diversity. The average Household Dietary Diversity Score (HDDS) was 7.3 while the average Food Consumption Score (FCS) was 39.0. Only a minority of households reached the minimum recommended nutrient intake where it is defined.

Baseline balance

Balance in baseline characteristics across the two treatment groups is central to the success of our evaluation strategy. Imbalance in observable attributes at baseline, especially those thought to be strongly correlated with the outcomes of interest, casts doubt on the ability of the evaluation to identify the causal effect of the intervention being investigated. We tested baseline balance on a range of observable characteristics. Of the characteristics tested, none have normalized differences that are above the 0.25 threshold, and only 5 have normalized differences above 0.10. We reject the null hypothesis of no difference in means between intervention households and control households for 5 of the 112 characteristics tested. This is a rejection rate of 4.5 percent, almost exactly what we would expect to find by chance with a significance level of 0.05. We can therefore conclude that the sample is well balanced and suited for use with the proposed evaluation design.

1. INTRODUCTION

Climate shocks have devastating effects on the wellbeing and livelihoods of the poor including higher risk of mortality (Kahn 2005) reductions in productive assets (Carter et al. 2007; Carter and Barrett 2006; Hoddinott 2006) and declining human capital (Alderman et al. 2006; Dercon et al. 2005). Given the extent of these effects, substantial attention has been paid to understanding factors that promote resilience – "the capacity to avoid and escape from [poverty] over time and in the face of myriad stressors and shocks" (Barrett and Constas 2014). In Malawi persistent drought has required annual appeals to provide humanitarian assistance to affected households while development programs seek to protect households from the risk of future shocks (Ellis and Manda 2012).

The UK Department for International Development (DFID) has designed a new program entitled Building Resilience and Adaptation to Climate Change (BRACC) aiming to strengthen the resilience of poor households in Malawi to withstand current and expected weather and climate-related shocks and stresses. Core activities are implemented over 4.5 years (2019–2023) by a consortium of non-governmental organizations and UN agencies in Balaka, Chikwawa, Mangochi and Phalombe districts.

BRACC builds upon the National Resilience Strategy (NRS) (GoM 2018) in focusing on its four pillars: (1) resilient agricultural growth; (2) risk reduction, flood control, and early warning and response systems; (3) human capacity, livelihoods, and social protection; and (4) catchment protection and management. As recommended by the NRS, BRACC implements interventions tailored to the three target groups of vulnerable households identified as *hanging in*, *stepping up*, and *stepping out* (Dorward et al. 2009), with the aim of graduating households to better-off groups as the program progresses.

To facilitate graduation, BRACC places a strong emphasis on monitoring and learning to generate robust evidence on the effectiveness of program delivery and on impact, to inform implementation in a way that allows the program to adapt and improve program activities and delivery during the implementation period. As such, the program includes a component on evidence, knowledge and policy influence which aims to:

1. improve knowledge and understanding of poverty, vulnerability and climate risk for all stakeholders in Malawi; including the creation of a national platform for research and learning;

2. provide advice, evidence and innovation that drives adaptive implementation of the broader Program; and

3. deliver timely evaluation(s) to generate lessons on the impact of the Program.

DFID has since engaged a long-term Knowledge Policy and Implementation Support Manager (KPISM) to deliver the Program's evidence, knowledge and policy activities, including evaluation of core Program components. In advance of appointing the long-term KPISM, DFID engaged the International Food Policy Research Institute (IFPRI) to support the design of the impact evaluation (IE) of resilience-building activities and to collect baseline data for the Program. This document provides background information to and reports on the results of the quantitative baseline survey.

The rest of this document is organized as follows: Section 2 presents the objectives of the BRACC Programme and impact evaluation. Section 3 introduces the BRACC Programme and provides basic information about the study context. Section 4 outlines the evaluation design and Section 5 describes the baseline data collection. Section 6 presents summary statistics and tests for balance

between control and intervention villages for the outcomes and other key indicators. Section 7 concludes.

2. OBJECTIVES

The main objective of the BRACC Programme is to strengthen resilience of poor and vulnerable households to withstand current and future weather and climate-related shocks and stresses. Resilience is operationalized as the ability of households to smooth consumption in response to shocks and stresses.

The IE has two purposes: (1) to provide rigorous measures of BRACC's impact on primary and secondary outcomes relative to a counterfactual, and (2) as part of a larger learning effort, to contribute to learning about how BRACC interventions and household behavior combine to shape these impacts through a series of mechanism experiments. The specific objectives of the impact evaluation related to Purpose 1 are:

1. To estimate the effectiveness of BRACC in enabling households to smooth consumption in the face of production shocks.
2. To estimate the effectiveness of BRACC in increasing food security.
3. To establish whether BRACC interventions reduce extreme poverty.

To achieve the objectives, the IE used both quantitative and qualitative approaches as outlined in Section 3 below. The evaluation is designed to serve these objectives by answering the following research questions:

	Research Question	Data sources
1.	Did the BRACC Programme increase household resilience by smoothing consumption following weather-related and other shocks? Did BRACC beneficiaries resort to fewer coping strategies that reduce assets or human capital?	Quantitative surveys; qualitative assessments; weather data
2.	Did BRACC increase household food security? Were the effects of BRACC on household food security greater following significant climate or economic shocks?	Quantitative surveys; weather data
3.	Did BRACC reduce the incidence of extreme poverty and the probability that households may be poor in the future?	Quantitative surveys

The impact evaluation will address the following OECD DAC criteria for evaluating development assistance:[1]

- Relevance: the extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor;
- Effectiveness: a measure of the extent to which an aid activity attains its objectives; and
- Impact: the positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended.

The relevance criteria are assessed using both the quantitative and qualitative components of the evaluation and through ongoing discussions with DFID. Relevance is assessed primarily following the first round of qualitative and quantitative data collection. The effectiveness and impact objectives is assessed after the midline and end-line surveys using the overall evaluation approach

[1] https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

and all qualitative and quantitative data collected. It is not possible to assess one of the remaining two DAC criteria: we cannot measure the program's efficiency (whether the stated objectives could have been achieved at lower cost with other approaches). Furthermore, the sustainability of BRACC (whether the Program's impacts will last beyond the period of study) cannot be assessed without a follow-up survey fielded several years after BRACC implementation ends. The BRACC approach may plausibly contribute to achieving the longer-term impact of a reduction in poverty and an end to recurrent cycle of humanitarian crises, but this cannot be directly measured using the data collected.

3. THE BRACC PROGRAM

The BRACC Programme was designed to have four main components:

- **Component 1: Climate resilient livelihoods** comprises mostly of localized interventions targeted at individuals, households and communities aimed at building household and community resilience to climate-related shocks.
- **Component 2: Contingency funding for shock response** will mostly take form of humanitarian response to shocks.
- **Component 3: Strengthening national social protection systems** comprises mostly of systematic approaches to improve program delivery targeted at district- and national-level governance structures.
- **Component 4: Evidence, knowledge management and policy influence** will deliver monitoring and evaluation of Components 1, 2, 3 and 4, facilitate learning and disseminate knowledge to influence policy.

Components 1 and 2 are implemented by a consortium of Non-Governmental Organizations (NGOs), private sector organizations, and United Nations (UN) agencies under the title Promoting Sustainable Partnerships for Empowered Resilience (PROSPER) Program. These include Concern Worldwide as the lead organization, GOAL, United Purpose (UP), CUMO Microfinance Ltd. and Kadale Consultants Ltd., as well as the United Nations World Food Programme (WFP) as the convening UN agency, the United Nations Development Programme (UNDP), the Food and Agriculture Organization of the United Nations (FAO), and UNICEF. Component 3 is being implemented by the German Agency for International Cooperation (GIZ) and co-financed by the German Federal Ministry for Economic Cooperation (BMZ) and the European Union. Component 4 was implemented by IFPRI while DFID selected a long-term supplier of the activities that fall under this component. At the time of writing, the activities under Component 4 are being handed over to the newly selected long-term KPISM.

BRACC's four components and theory of change are illustrated in Figure 3.1. Through Component 1 (promoting climate resilient livelihoods), beneficiary households and communities are targeted with:

- Interventions that promote more sustainable and climate smart agriculture and less weather-dependent livelihoods;
- Strengthened linkages to private sector partners and market systems; business and skills training; and
- Interventions that transfer assets and promote cash savings and access to loans (e.g. VSLs) and other financial services, such as micro-insurance;

- Investments in:
  - Land, water and natural resources management;
  - Disaster risk reduction (DRR) and Early Warning Systems;
  - Strengthened community mobilization and local governance structures, such as Village Civil Protection Committees; and
  - Innovations and partnerships which help develop a vibrant private sector that is better able to service productive farmers.

The most vulnerable households will also be protected from shocks, when needed, through Component 2 (contingency funding for shock response) with short term, scaled up assistance to prevent them resorting to negative coping strategies and to protect gains made under Component 1. Together Components 1 and 2 are expected to result in:

- Households being able to accumulate assets, access more diverse income streams, and improve their capacity to adapt to long-term climate changes **(Output 1)**;
- Reduced exposure of households and communities to drought and floods because natural resources are managed sustainably **(Output 2)**; and
- Households, communities and districts being better prepared for shocks and faster and better targeted responses being available when needed **(Output 3)**

To bring about the longer term sustainable and transformational change required to achieve the Outcome of strengthened resilience, the theory of change specifies that these investments at household and community level need to be complemented by investments at national and district level made through Components 3 (strengthened, more shock sensitive national social protection systems) and 4 (more effective and targeted sector investments). Components 3 and 4 will support:

- More coherent policy, institutional and financing arrangements for climate change adaptation, disaster relief and response, and social protection;
- Greater national and district level capacity to implement programs and policies in a coordinated way; and
- High quality research and analytics; monitoring and evaluation; and learning to build evidence on what works.

Components 3 and 4 will contribute to:

- Strengthened social protection systems that can better support the most vulnerable and chronically poor households, and which can scale up to protect others during lean season or in the aftermath of a shock (**Output 4**); and
- More effective, coordinated and targeted government and donor interventions (**Output 5**).

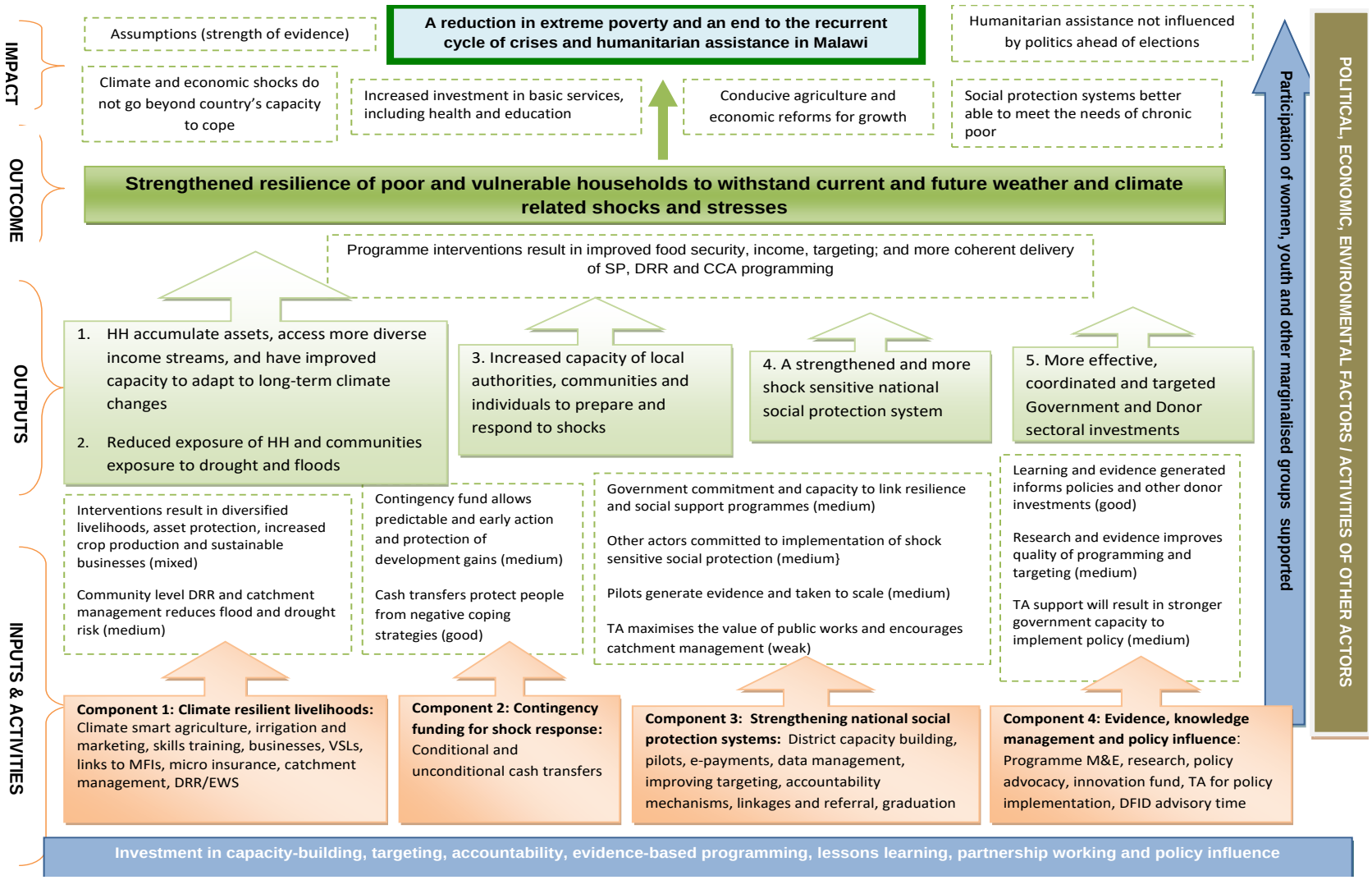
If all four components deliver their intended outputs, the Program will result in:

- Less chronically and transient poor people falling into the humanitarian caseload and;
- A greater chance that households will accumulate the assets, incomes and skills necessary to engage in less precarious livelihoods, participate in markets and to move up out of poverty in the longer term.

The IE design presented in this document focuses on evaluating Components 1 and 2 of BRACC only as implemented by the PROSPER consortium, especially on the non-humanitarian resilience-building interventions implemented under Component 1 and described in more detail in Section 3.1.

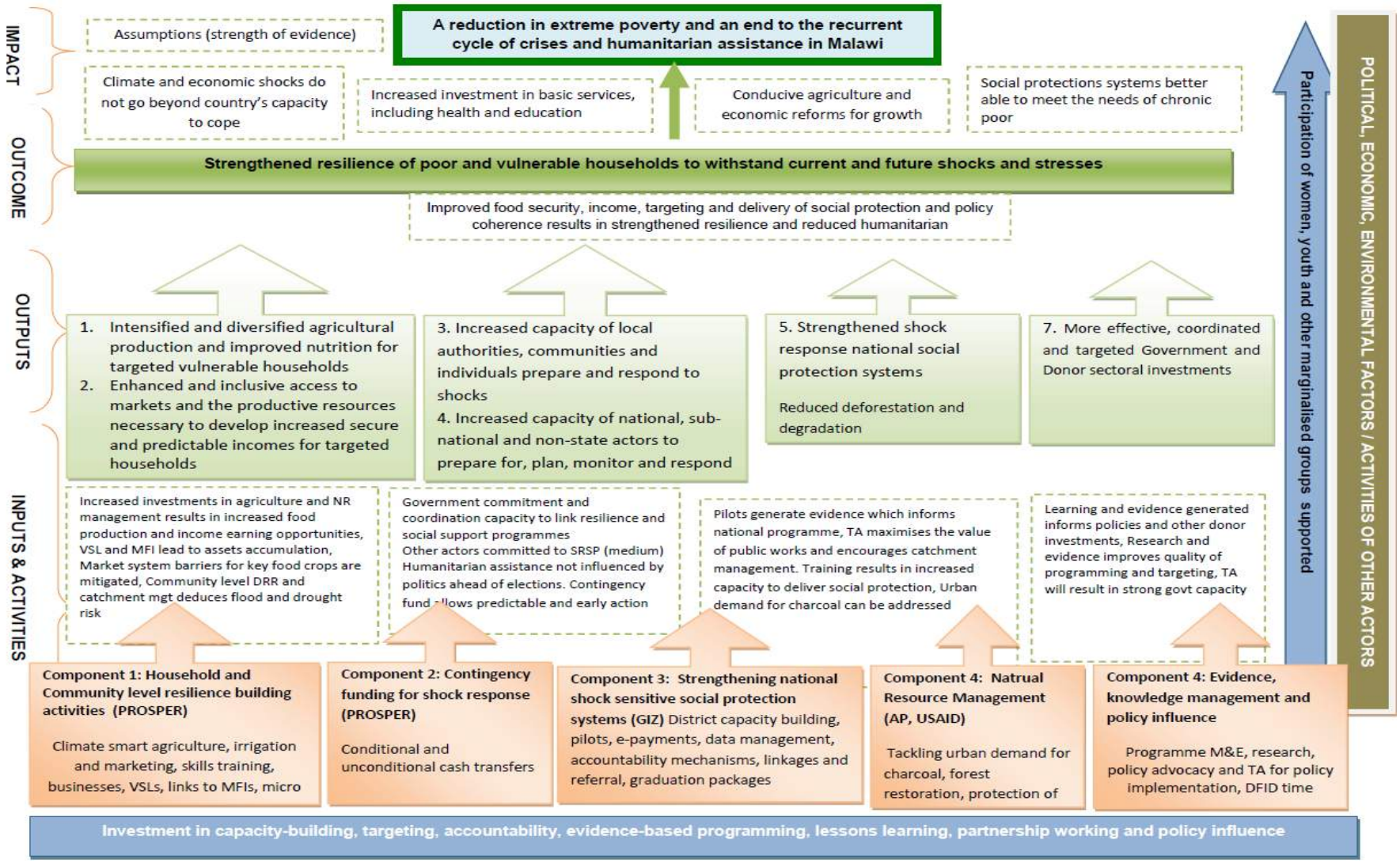
After the impact evaluation was designed and baseline data collected, an additional component focusing on **Natural resource management** was added to the program. This component will support activities aimed at curbing illegal wildlife trade through an accountable grant with African Parks and deforestation by co-funding USAID's Modern Cooking for Healthy Forests program. Along with this addition, the theory of change of the program was updated and some of the expected outputs modified. These changes are reflected in Figure 3.3. However, since the updates took place only after baseline data collection, they are not reflected in the design of the impact evaluation.

Figure 3.1: Original BRACC theory of change diagram



Source: DFID Malawi (February 2019).

Figure 3.2: Updated BRACC theory of change diagram



Source: DFID Malawi (February 2020).

3.1. PROSPER resilience-building interventions

The PROSPER resilience-building interventions are intended to achieve four main objectives:

1. Intensified and diversified agricultural production and improved nutrition for targeted vulnerable communities through

    a. Improved adoption of nutrition practices by implementing the following:

        i. Social and behavior change communication (SBCC) through mapping, forming, and equipping Cluster Care Groups with materials and technical support

        ii. Awareness campaigns on dietary diversity, food preparation and use, food preservation, WASH

        iii. Nutrition messages on radio

    b. Increased agricultural production, adoption of Climate Smart Agriculture (CSA), and inclusive access to quality agricultural inputs by implementing the following:

        i. Identification and training of 3,150 Lead Farmers on CSA in each district. Lead farmers will create demonstration plots for 30 follower farmers, reaching 94,500 farmers with CSA techniques, crop diversification, post-harvest handling and value addition, and linkages with input and output markets.

        ii. Four cohorts of 30 Extension workers and 30 Lead Farmers from across PROSPER districts will attend courses at the Farmer Field School, at Namiasi Training Centre outside Mangochi. Each attendee will be supported to set up a field school in her village, and the extension workers will train another group of 30 lead farmers to have their own field schools. This method will reach 108,000 people with field schools on topics selected by the extension workers and lead farmers ranging from integrated pest management to trialing new seed varieties.

        iii. Improved access to quality inputs, including certified seed, inoculant, and fertilizers, through more commercially based Input Fairs, and facilitation of links between rural poor households and input markers.

        iv. Pass-on Livestock schemes targeting the Stepping Up category of beneficiaries for increased productive assets, and training of Community Animal Health Workers

        v. Promotion and increased uptake of irrigation among rural poor households, and support for establishment/rehabilitation of irrigation schemes

        vi. Promotion of and support for start-up and strengthening of VSL groups

2. Enhanced and inclusive access to the productive resources necessary to develop increased, secure and predictable incomes through:

    a. Increased and improved post-harvest handling and processing among smallholder farmers

    b. Increased and inclusive access to financial services, including special loan products, and increased entrepreneurship and business skills

c. Strengthened and more inclusive market systems and linkages between private sector and smallholder farmers

3. Reduced vulnerability and exposure of households and communities to risk through:

   a. Improved natural resource management through asset creation and protection linked to food security by implementing a Food Assistance for Assets (FFA) program, under which people in the *hanging in* group will receive cash transfers (MWK14,400 / month) to address their immediate food needs. Interventions build or boost assets, such as rehabilitating degraded land, that will improve livelihoods by creating healthier natural environments, reducing risks and impact of shocks, increasing food productivity, and strengthening resilience to natural disasters. Specific activities include: Trainings on nurseries, soil and water conservation techniques, compost production and application, establishing beehives and nurseries; raising and planting seedlings; demonstrations and use of energy saving stoves; construction of soil and water conservation structures; manure production; establishment of household and group gardens; establishment of irrigation schemes; construction of pit latrines; and livestock schemes.

   b. Improved natural resource management through asset creation and protection linked to alternative incentive models within a model of broader community mobilization and ownership, including reduced cash transfers and sustainable natural resources-based livelihoods.

   c. Disaster Risk Reduction and Mitigation measures including through:

      i. Strengthening of community structures, community based early warning systems and contingency planning

      ii. Construction of green multi-purpose evacuation centers

      iii. Construction of flood mitigation works

      iv. Support for meteorological data collection including the setup of USSD data technology

   d. Increased access to insurance products for smallholder farmers and private sector entities engaging with smallholder farmers by providing farmers with:

      i. Weather index insurance as a transfer in FFA in Chikwawa, Mangochi

      ii. Weather index insurance combined with area yield index insurance as a transfer in FFA in Balaka and Phalombe

   e. Improved community access to effective climate information services and community-based risk mitigation by providing:

      i. Radio programming on climate and agriculture

      ii. Participatory Integrated Climate Services for Agriculture (PICSA) training for Agriculture Extension Officers -- Extension staff work with groups of farmers ahead of the agricultural season to discuss historical climate information and use participatory tools to develop and choose crop, livestock and livelihood options best suited to individual farmers' circumstances

   f. Provision of Lean Season Top Ups to vulnerable households

4. Increased capacity of national, sub-national and non-state actors to plan, coordinate and monitor resilience programming, including Shock-Responsive Social Protection (SRSP)through:

    a. Successful change management through increased capacity of national, district, and community institutions by implementing the following:

        i. Support the Department of Disaster Management Affairs (DoDMA) to implement a Disaster Management Information System (DMIS) with a pilot in the four PROSPER districts. The DMIS system is designed to collect, process, store, and distribute information for planning and decision-making on disaster response and recovery from district to national level.

        ii. Support transition to SRSP by increasing national government capacity to respond to food insecurity, develop and use government systems, and establish a trajectory for increasing the predictable provision and coverage of social protection, in lieu of annual emergency responses.

    b. Improved systems for resilience building among government by implementing the following:

        i. Support operationalization of the National Resilience Strategy Secretariat through learning events, applied research, equipment, training, coordination, and monitoring.

        ii. Create a Resilience Dashboard digitizing data collected from households and service providers geotagged to a platform to visualize provision of development services and better understand multidimensional development challenges.

    c. Increased production and use of knowledge and evidence Nutrition-sensitive social protection pilot – cash transfers are to be provided to pregnant women and new mothers who are enrolled in the Malawi Social Cash Transfer Program through the first thousand days. The pilot will be implemented and evaluated in collaboration with the government.

3.2. Study context

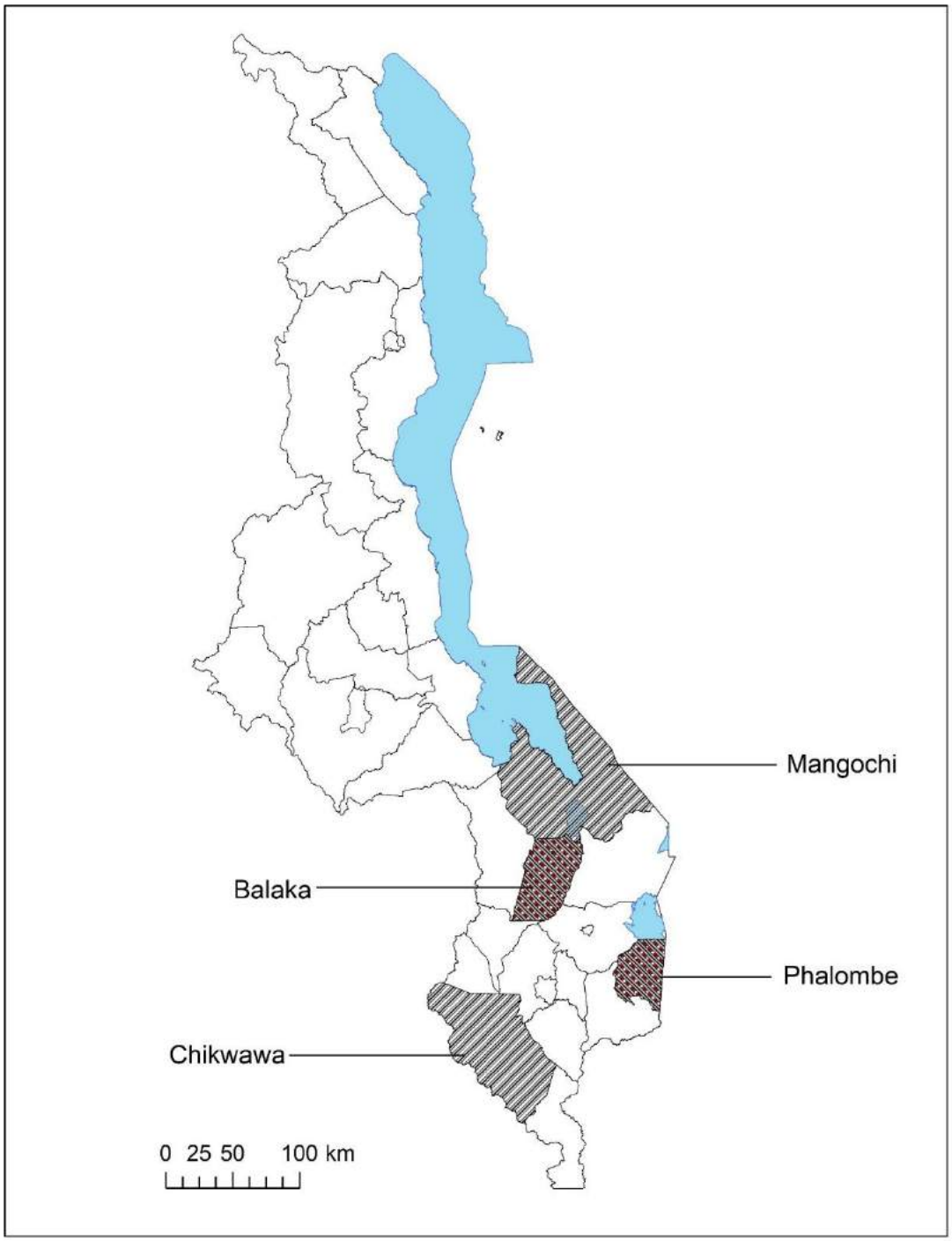
The Republic of Malawi is a landlocked country in Southeast Africa with a population of 17.6 million (September 2018), just over 74 percent of which reside in rural areas (NSO 2019). As of 2019, 67 percent of working males and 76 percent of working females were employed in agriculture (ILO 2020), mostly as subsistence farmers. Malawi is divided into 3 regions and regions are further subdivided into a total of 28 districts. Malawi's regions are similar in size, but its population is concentrated in the South, with 44 percent in the Southern region and further 43 percent in the Central region.

With its subsistence-based economy, Malawi is particularly vulnerable to agricultural production shocks (Barrett and Headey 2014) and has experienced recurrent food crises over the past two decades (Ellis and Manda 2012). In 2015/16, 2.8 million people needed relief after extreme flooding in the previous season. The 2015/16 cropping season also saw an exceptionally poor harvest, nearly 30 percent below long-term national production levels. This meant that in 2016/17, up to 6.7 million people in 24 of Malawi's 28 districts would be unable to meet their food requirements over the period leading to the following harvest (DoDMA 2016). The 2016/17 and the 2017/18 cropping seasons produced average harvests, only for the 2018/19 crop in the southernmost districts to be decimated by floods resulting from the impact of cyclone Idai in March 2019.

The PROSPER consortium targets four of the most vulnerable districts in the Southern region: Balaka, Chikwawa, Mangochi and Phalombe. This study focuses on Balaka and Phalombe only, as some of the activities included in the PROSPER package had been ongoing in Chikwawa and

Mangochi (implemented by some of the PROSPER consortium members under other programs) by the time of the baseline survey. Figure 3.3 displays the location of the four districts in Malawi. Balaka and Phalombe are rural districts without major urban centers. Balaka is larger than Phalombe in terms of land area (2,193 km^2 compared to 1,394 km^2), but their population size is similar at just over 315,000 each (NSO 2019). Both are poor: the incidence of poverty (using the national poverty line) is 61.3 percent in Balaka and 83.2 percent in Phalombe, making it the district with the highest poverty rate in Malawi (IFPRI 2019).

Figure 3.3: Intervention and study districts in Malawi



Source: Author's construction.

3.3. Resilience and other related programs in the study region

The largest resilience-building program underway in the vicinity of PROSPER is Titukulane, a five-year "refine-and-implement" project funded by USAID Food for Peace is implemented in Mangochi and Zomba districts since October 2019.[2] Its overall objective is to promote sustainable and resilient food and nutrition security for 290,722 ultra-poor and chronically vulnerable households living in 9 out 13 traditional authorities (TA) in Mangochi and all 11 TAs is Zomba through:

1. Increased, more stable and more equitable incomes from agricultural and non-agricultural livelihoods for ultra-poor and chronically vulnerable households, women and youth
2. improving nutritional status of children under five, adolescent girls and women or reproductive age; and
3. improving local and institutional capacity to reduce risk and increase resilience among chronically poor and vulnerable households in alignment with the National Resilience Strategy (NRS).

Titukulane is implemented by a consortium led by CARE with the following partners: Save the Children, Emmanuel International, Water Aid, the National Smallholder Farmers Association and IFPRI. To avoid duplication, Titukulane is not carrying out any activities in the three PROSPER TAs in Mangochi district.

Other related projects operating in the area include:

- AMAA (USAID funded Let Girl's Learn activities, implemented by Save the Children), 2016–2021
- AgDiv (USAID funded Agricultural Diversification for Income and Nutrition implemented by Palladium in the 13 districts, including Balaka, Chikwawa and Mangochi), 2017–2022
- SANE (USAID funded activity on Strengthening Agricultural and Nutrition Extension Services, implemented by University of Illinois in 13 districts including Balaka, Chikwawa, and Mangochi), 2016–2021
- REFRESH (USAID funded activity, formerly FISH, implemented by PACT in all Lakeshore districts, including Mangochi) 2020–2024
- Tiwalere II (USAID funded nutrition and WASH activity implemented by Feed the Children, Nu Skin and Proctor & Gamble) in 12 districts including Balaka and Mangochi, 2016–2021.

While some of these programs may be active in some of the communities sampled for the PROSPER impact evaluation, they are unlikely to systematically target either the control or the intervention villages. Their effects will therefore average out across our sample without affecting the results of the evaluation.

In addition, there are numerous nationwide projects (such as DFID's TRACTION and Umoyo Wathu Health Systems Strengthening Systems Projects or USAID's Feed the Future) that may be expected to reach the four PROSPER districts. However, their effects should – by design – be similar in both

[2] Titukulane was preceded by two earlier USAID Food for Peace funded activities, UBALE (United in Building and Advancing Life Expectations), implemented by Catholic Relief Services between in Blantyre Rural, Chikwawa, and Nsanje districts; and, Njira (Pathways to Sustainable Food Security), implemented by Project Concern International (PCI) in Balaka and Machinga districts. Both activities were implemented between 2014 and 2019 focused on: (1) increasing access to and availability of diverse and nutritious foods; (2) improving the health and nutrition of pregnant and lactating women and children under five; and, (3) building resilience of vulnerable households.

intervention and control villages in our sample so that they should not be expected to affect the results of the PROSPER impact evaluation.

4. EVALUATION DESIGN

4.1. Overview of the quantitative evaluation design

The goal of the quantitative evaluation is to identify the causal impact of access to the PROSPER Programme on poverty, resilience, and household food security. To estimate these impacts, the evaluation relies on a cluster randomized controlled trial (cRCT), with villages serving as clusters and therefore the unit of randomization. In villages randomly assigned to the PROSPER control group, households will have access to "business as usual" humanitarian aid funding if they experience negative environmental shocks, following national allocation protocols. Villages randomly assigned to the PROSPER treatment group will have access to the shock-contingent humanitarian aid, but they also will be offered programming from Component 1 designed to promote climate resilient livelihoods, improve market linkages and business skills, increase access to financial services, and spur investments in natural resource management. The precise combination of interventions offered to households in intervention villages will depend on the village context (e.g. environment, crop suitability, and economy) as well as on which of the three income or welfare-based groups the household is classified as belonging to: hanging in, stepping up, or stepping out. A decision was made to include more villages in the intervention group than in the control group. This was done in order to make sure that the evaluation was not constraining the PROSPER consortium from offering their programming to the maximum number of potential beneficiaries and to allow for additional learning and experimentation opportunities within the intervention villages.

Randomized controlled trials (RCTs) are widely viewed as the most reliable method of quantitative program evaluation. By allowing researchers to randomly assign who is offered access to a program, RCTs provide a clean way to estimate the causal effect of the program. In comparison, observational studies are forced to compare outcomes across groups that choose to participate in the program and those that do not. In most circumstances, this comparison will confound the true impact of the program with selection bias, a measure of how the outcomes for groups that choose to participate would differ from those that do not, even in the absence of the program. Selection bias can be positive or negative depending on the context and the intervention being studied, suggesting that observational impact estimates may not even be related to the true impacts of a program in a known direction. Selection bias is eliminated by the random assignment of treatment in an RCT; units included in the study are allocated to receive the intervention through a random process overseen by the research team. Therefore, on average, units assigned to the intervention group and units assigned to the control group would have the same outcome levels in the absence of access to the program. As a result, any differences in outcomes across the two groups can be attributed to the intervention being evaluated.

The evaluation assigns treatment at the village level, ensuring that there is no variation in treatment status across households residing in the same village. The resulting cRCT provides less statistical power than a randomized controlled trial that assigns treatment status at the individual level, but it reduces the risk that spill overs—when one unit's treatment assignment has a direct effect on the outcomes of another unit—will contaminate estimates of the effect of the program.[3] In the context of

[3] Though clustering at the village level will unquestionably reduce the likelihood of spill overs, it does not completely rule them out as a possibility. The existence of spill overs across villages can be empirically assessed at endline by comparing the outcomes of interest across control villages that are spatially closer to a greater share of other villages assigned to the treatment group and control villages where that share is smaller.

the PROSPER evaluation, it was also infeasible for the program activities to be offered to some households in a village but not others (e.g. savings and loans groups, village level catchment management, community-based disaster risk reduction). Defining even broader study clusters—which would have further reduced the likelihood of spill overs and made it operationally easier for the implementing organizations to operate within study clusters—would have required the PROSPER consortium to offer their programming in more districts and TAs than was possible. Ultimately, the decision was made to concentrate the study in villages from two districts (Balaka and Phalombe) in Southern Malawi, due to some activities in the PROSER package having been previously implemented in Chikwawa and Mangochi.

In order to estimate the impact of the PROSPER Programme on poverty, resilience, and household food security, the quantitative evaluation includes a listing exercise and three rounds of household surveys—a baseline in 2019, a midline in 2021 and an endline in 2023—and a baseline community interview that was administered to village leaders to gather information common to all households in a village. The listing, which began on August 27, 2019, enumerated all households in the 224 study villages and generated the sampling frame from which the household sample was drawn. The baseline household survey followed the listing with a lag of one or several days[4] and was completed on October 9, 2019, with 14 randomly sampled households in each study village. The purpose of the baseline household survey was to collect basic demographic and socioeconomic characteristics, pre-study period measures of the main outcomes, information on interaction with government and non-government programs, and other individual and household-level variables expected to be predictive of the endline outcomes. The endline survey, which is planned for 2023, will re-collect the same information and also measure knowledge, behaviors, and intermediate outcomes along the causal pathway. The list below includes the three rounds of data collection along with the key motivations for each.

Baseline Household Survey (August–October 2019)

- Assess balance in observable characteristics across treatment groups in the cRCT study
- Use baseline measures of outcomes in endline analyses to improve statistical power through ANCOVA or difference-in-differences specifications
- Use baseline measures of non-outcome characteristics to reduce residual variance and potentially improve precision of the treatment effect estimates
- Explore the relevance of the PROSPER Programme for the study population by identifying gaps in knowledge and practices, measuring access to inputs and markets, and assessing households' exposure to alternative programming

Midline Household Survey (August–September 2021)

- Measure primary and secondary outcomes to enable estimation of the program's impacts
- Connect intervention effects to levels and changes in key individual and household characteristics to better understand causal pathways

[4] Typically, an enumeration team would complete the listing in 2 or 3 villages in a day, and visit these villages (one per day) for survey interviews in the following days.

Endline Household Survey (August–September 2023)

- Measure primary and secondary outcomes to enable estimation of the program's impacts
- Connect intervention effects to levels and changes in key individual and household characteristics to better understand causal pathways

4.2. High-frequency monitoring

In addition to the three-wave panel survey, the impact evaluation was intended to use 'light-touch' high-frequency monitoring of shocks and household coping mechanisms/responses. This monthly monitoring would be undertaken by community-based assistants recruited by the PROSPER implementing partners with the assistance of Catholic Relief Services, who developed the methodology for the USAID-funded Measurement Indicators for Resilience Analysis (MIRA) project (Knippenberg et al. 2017). The methodology combines questions about shocks faced by households with the Coping Strategy Index (Maxwell and Caldwell 2008) and a simple hunger score into one short data collection tool. The results of the monitoring exercise would be fed back to the communities from which they would be collected at regular intervals, allowing them to learn and take action based on the results. This tool would allow us to precisely trace any dips in wellbeing following shocks, and, crucially, the speed of recovery from these dips. Such high-frequency monitoring would capture what happens between the waves of quantitative and qualitative fieldwork, thereby deepening our understanding of the nature and frequency of shocks and their impact on household- and community-level resilience. Following a few setbacks, the MIRA monitoring has not yet been put into place but can be worked into the overall impact evaluation once it is up and running.

4.3. Mechanism experiment: Testing the demand for funeral and health insurance

To facilitate additional learning beyond the overall impact evaluation, the evaluation design and baseline survey include provisions for a mechanism experiment to test the impact of different pricing on take-up of a funeral and health insurance package offered in PROSPER villages by CUMO. For a premium of MWK100 per beneficiary per month, this package offers a benefit of MWK15,000 in case of death of an insured family member, and MWK2,000 per week for up to 4 weeks in case of hospitalization of an insured family member for 6 or more days. PROSPER plans to pilot the product with subsidies to 9,000 clients. To allow for a robust evaluation of the effect of subsidies on the uptake of the product, we randomized the level of accessible subsidy at the household level by issuing the respondents with randomly drawn discount coupons with five values (MWK0, MWK300, MWK600, MWK900, and MWK1,200). Beneficiary households can then exchange the coupons for an appropriate discount when purchasing a year-long funeral and health insurance policy from CUMO, while CUMO will redeem coupons for the relevant subsidy payment from the PROSPER consortium. This experiment will allow a demand curve to be estimated once CUMO has reached the PROSPER communities and provide results that can be fed back to CUMO and other implementing partners to assist in the fine tuning of their micro insurance products.

It should be noted that this mechanism experiment was simply a modification of an existing component of the PROSPER package, under which subsidies at different levels were planned to stimulate uptake of CUMO's insurance products. The modification entailed assigning the level of the subsidy at random rather than systematically as originally planned. Survey respondents were not aware that they may become eligible for an insurance subsidy until the very end of the interview.

It is envisaged that further mechanism experiments will be conducted as part of the PROSPER midline and endline surveys.

4.4. Qualitative evaluation

Following completion of the quantitative baseline survey and its analysis, selected topics for detailed qualitative investigations are to be identified by the PROSPER consortium in association with DFID and the KPISM. It is envisaged that this follow-up qualitative work will begin in September/October 2020 after the permanent KPISM has been assumed responsibility for Component 5 (Component 4 in the original theory of change) of BRACC. Therefore, we only describe the broad scope of the qualitative evaluation here.

To learn about the 'whys' and 'hows' underlying motivations for people's actions, combining qualitative and quantitative methods in the sequenced and iterative fashion is useful. This is a mixed-methods (or 'q-squared)' approach with various antecedents, and which was revived and made more rigorous by various IFPRI and CPRC studies in the late 1990s and early 2000s (Adato 2008, Davis and Baulch 2010; Davis and Baulch 2011; Kanbur 2003). In particular, we favor quant-qual-quant iteration, in which qualitative investigations (comprising focus group discussions, key informant interviews, and sometimes life-history interviews) follow on from quantitative surveys. The three-wave panel design (i.e., baseline-midline-end-line) adopted for PROSPER, means that the evaluation sequence will have five phases:

quant(baseline)–qual–quant(midline)–qual–quant(endline)

with a possible sixth qualitative phase after the end-line survey.

The focus of the qualitative investigations will be guided by an analysis of previously collected quantitative data, as well as by learning questions generated in consultation with the implementing partners, DFID and other stakeholders. The quantitative baseline and midline survey data will be analyzed for overall patterns to produce a number of stylized facts about the study population. These stylized facts to the implementing partners, DFID and other stakeholders in one or more learning events to help identify the most interesting and/or surprising patterns in the data. In general, these patterns are likely to take the form of unexpectedly high or low levels of a variable of interest (e.g. consumption expenditure, use of particular coping strategies, income from non-farm enterprises, adoption of certain technologies, etc.) among one group of households (e.g. female-headed households, geographically remote households, etc.) as compared to other households. The mechanism experiments and high frequency monitoring may also reveal unexpected patterns of behavior (e.g., high or low uptake of funeral insurance in certain communities) that require further qualitative investigation. Such patterns tend to point towards potential areas of learning for the PROSPER consortium. Their identification will help PROSPER formulate the right "how" and "why" questions to guide the qualitative follow-up research.

A separate strand of qualitative investigations will use focus group discussions with separate groups of women, men and purposively selected key informants to interrogate community level understanding of wellbeing, resilience, and the drivers of vulnerability. It is important that PROSPER's understanding of resilience and vulnerability is grounded in local realities rather than being driven by externally formulated definitions. Furthermore, it is often the case that women and men view wellbeing and resilience in different ways, and they may also identify different drivers (or, more likely, sequences of drivers) of their vulnerability.

To investigate graduation following the midline survey, IFPRI suggests employing Krishna's stage of progress methodology, an established qualitative methodology tested in Kenya, India, Peru, Uganda and the United States (Krishna 2005 and 2011). This methodology aims to identify the typical stages through which rural household pass on their way to achieving prosperity based on community-level focus group discussions.[5] This methodology helps us identify thresholds which we can then apply to the quantitative survey data to evaluate project impact on graduation independently of how beneficiaries are graduated programmatically. Figure 4.1 provides an illustration of the stages of progress identified by community level discussions in rural Uganda.

Figure 4.1: Stages of progress

Stage 1	Obtain food for the family		
Stage 2	Obtain some clothes for the family		
Stage 3	Send children to primary school		
Stage 4	Repair the existing shelter	Poverty Cut-Off	↑Poor
Stage 5	Buy sheep or goat		↓Non-Poor
Stage 6	Buy a small piece of land		
Stage 7	Buy a bicycle for transportation		
Stage 8	Buy more land	Prosperity Cut-Off	↑Non-Poor
Stage 9	Build a permanent house		↓Prosperous
Stage 10	Start operating a small business of a few farm products		
Stage 11	Buy a car or build commercial property		

Source: Krishna (2005).

Krishna's stages of progress methodology draws heavily on grounded theory, a well-established approach to qualitative analysis (see Strauss and Juliet 1994).

If subjective resilience emerges as an important issue at later stages of PROSPER, in-depth qualitative interviews with adult women and men within selected households from the program may also be employed to probe aspirations, risk aversion and self-efficacy – the three key elements of subjective resilience identified by Béné et al. (2019).

4.5. Sampling and sample size calculations

Prior to fieldwork, sample size calculations were undertaken to identify the number of study clusters and the number of households per cluster to include in the evaluation. Recent (2016–2017) data for rural households in Balaka and Phalombe from the Fourth Integrated Household Survey (NSO 2017) were used to estimate key parameters for outcomes of interest. We focus on the household food consumption score and the log of total monthly per capita expenditure (MPCE).

[5] Krishna's stage of progress asks key informants to collectively define poverty and then identify the stages through which household in their communities usually climbs out of poverty. Being able to feed all household members adequately, is usually listed as the first of stage of progress, followed by sending to young children to school, and wearing decent clothes outside the house. Subsequent stage of progress vary according to cultural and socio-economic context. Households that have moved up and down these stages of progress over the past 25 years (defined using historical markers) are then identified and a "participatory transition matrix" is constructed. The trajectories of households that "remained poor", "escaped poverty", "become poor" or "remained non-poor" are then investigated using conventional life history and narrative methods.

The FCS is an indicator of food security designed by the WFP to capture both the frequency and diversity of household dietary consumption. For each of eight different food groups, households are asked to report the number of times during the week preceding the survey that they consumed food from that group. These weekly frequencies are then weighted according to a metric designed to reflect the nutrient density of that group, and the weighted group-level totals are summed to generate a total score between 0-112. Total monthly consumption per capita is constructed using the full reported expenditure and consumption of the household and scaled to measure average monthly expenditure (in Kwacha). We use the natural log of monthly household expenditure per capita to account for the fact that the distribution of the untransformed measure is highly skewed by the presence of a small number of high expenditure households.

For both FCS and MPCE, the IHS4 data enable the estimation of means, standard deviations, and intra-cluster correlations (ICCs), all of which are key parameters in clustered evaluation designs. The ICC conveys the degree to which households within a village are more similar to one another than they are to households in other villages. The larger the ICC, the smaller the increase in statistical power from an additional observation in an existing study cluster. In the extreme case where the ICC is 0, observations in the same cluster are no more similar to one another than they are to observations in other clusters, and the clustered evaluation requires the same sample size as a non-clustered evaluation to detect an effect of a given size. Beyond the mean, standard deviation, and ICC, which were estimated directly using IHS4 data, we set the study power (0.8) and significance level (0.05) to their conventional values, assumed that there would be a difference in program exposure between intervention and control households of 0.9 (to allow for some imperfect compliance in the design), assumed that the attrition rate will be 10 percent, that there will be a baseline and an endline survey, that ANCOVA will be used to estimate program impacts, that the correlation between the baseline measure of the outcome and other baseline controls and the endline measure of the outcome will be 0.3,[6] and, lastly, we required that there be two times as many intervention clusters as control clusters in order to provide power for experimentation within the intervention clusters.

A final consideration in setting the sample size was the financial cost of conducting the data collection activities. Based on the expected budget and discussions with potential data collection partner organizations, it was determined that the study should include no more than 3,200 households. We therefore limited the sample size search to combinations of households per cluster and total clusters that fell below the 3,200 total household thresholds.

The study was powered to detect “meaningful” effects on two outcomes—the household food consumption score (FCS) and the log of total monthly household expenditure per capita (MPCE). We interpreted meaningful as implying effect sizes below which there are alternative programs which have been shown to successfully achieve changes in the outcomes in comparable contexts. For the poor, rural and food insecure households targeted by the PROSPER program, we considered direct (cash, food, or voucher) transfers (Hidrobo et al. 2014) and the multidimensional productive asset transfer and graduation program evaluated in six different developing countries (Banerjee et al 2015) as being the most relevant counterfactual policies. For MPCE, we selected a minimum detectable effect (MDE) size of 12 percent, or slightly smaller than the effects of the productive asset transfer program in Ethiopia which increased MPCE by 15 percent. Unfortunately, there is little high-quality existing research using the FCS as a primary outcome. Based on the desired MDE for MPCE we determined that the study should include 75 control villages and 149 intervention villages, with 14 households sampled in each study village. This sample implies that

[6] Past work from developing countries (Tonga, Vanuatu, and two studies from Ghana) with household expenditure as a dependent variable finds an autocorrelation of between 0.12 and 0.66 for 6-month periods. In addition, a simple regression of MPCE on household size indicators in the IHS4 yields a correlation of 0.4. We therefore believe 0.3 should be a conservative estimate of the correlation between baseline characteristics (including lagged MPCE) and the endline measure of MPCE.

study is powered to detect differences of approximately 7 percent of the mean FCS for rural households from Balaka and Phalombe in the IHS4.

Table 4.1: Log monthly household expenditure per capita

Baseline Obs per cluster	Endline Obs per cluster (rounded)	Intervention Clusters	Control Clusters	Baseline Obs Total	Endline Obs Total (rounded)	Detectable Effect Size (% Increase)
14	13	149	75	3,136	2,823	12
22	20	133	67	4,400	3,960	12
14	13	129	65	2,716	2,445	13
22	20	115	58	3,806	3,426	13
14	13	112	57	2,366	2,130	14
22	20	100	51	3,322	2,990	14
14	13	99	50	2,086	1,878	15
22	20	88	45	2,926	2,634	15

Note: Estimates from the BRACC Baseline Survey sample.

Table 4.2: Food consumption score

Baseline Obs per cluster	Endline Obs per cluster (rounded)	Intervention Clusters	Control Clusters	Baseline Obs Total	Endline Obs Total (rounded)	Detectable Effect Size (% Increase)
14	13	181	91	3,808	3,428	6
22	20	163	82	5,390	4,851	6
14	13	134	68	2,828	2,546	7
22	20	120	61	3,982	3,584	7
14	13	103	52	2,170	1,953	8
22	20	93	47	3,080	2,772	8
14	13	82	42	1,736	1,563	9
22	20	74	38	2,464	2,218	9

Note: Estimates from the BRACC Baseline Survey sample.

4.5.1. Village sampling and random assignment

To identify the villages to include in the quantitative evaluation, we first consulted the implementing partners on the areas in which they were all willing to implement various parts of the intervention package. This allowed us to compile a list of areas within the two evaluation districts which could receive the whole intervention package. This led to a list of areas under 73 GVHs under 5 TAs. According to the 2018 Malawi Population and Housing Census conducted by the National Statistical Office (NSO 2019), these areas contain 401 villages and 67,093 households.

From this list of 401 villages, we randomly assigned 75 villages to a control group and 149 to an intervention group. We assigned further 13 villages as potential control replacements and 26 as

potential intervention replacements.[7] These were to be surveyed – in an order predetermined at random – should it be unfeasible to conduct the survey in any of the 224 sampled villages.

The 224 sampled villages were randomly assigned to either the PROSPER intervention group or the PROSPER control group, stratifying at the TA-level and holding fixed the number of villages assigned to the control group (75) and to the intervention group (149). The villages included in the sample were drawn from five TAs in Balaka and Phalombe. Their locations are illustrated in Figure 4.2 and Figure 4.3. The number of villages varied substantially across the five TAs, with 5, 27, 67 villages in the three TAs in Phalombe and 25 and 100 villages in the two TAs in Balaka. Given this variation in TA size as well as expected differences across TAs in the main study outcomes, we elected to stratify the randomization at the TA level; while the random assignment of villages to treatment groups ensures that causal effect of access to the program can be estimated using simple randomization, existing work suggests there are considerable gains in precision from using more efficient treatment allocation mechanisms (Bruhn and McKenzie 2009). Stratification at the TA level was therefore implemented in order to take advantage of any potential gains in precision.

Figure 4.2: Villages sampled in Balaka

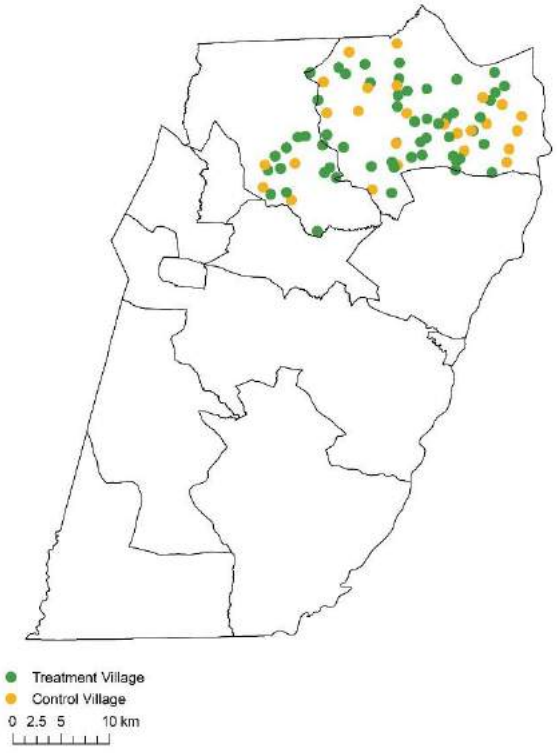
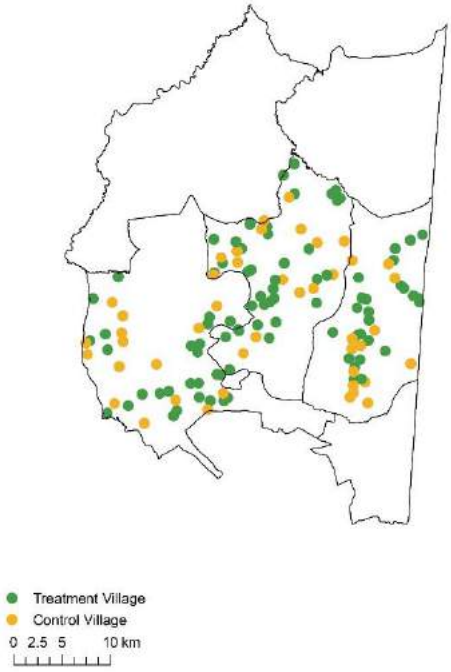


Figure 4.3: Villages sampled in Phalombe



Source: Prepared by IFPRI-Malawi.

As the number of villages in the five TAs is only perfectly divisible by 3 for one TA (the TA with 27 villages), it is impossible to allocate exactly 2/3 of the villages to the intervention arm and 1/3 of the villages to the control arm for four of the five TAs. Instead, we use a multiple step process to ensure that we come as close as possible to allocating 2/3 of the villages in each TA to the intervention group and that we randomly select which TAs get any “extra” intervention units. In the first step, we

[7] One control village was replaced with a replacement control village after it became clear that the village had appeared twice on the NSO census list (each time under a different GVH) and was consequently sampled twice – once as a control village and once as a treatment village. Since it was first surveyed as a treatment village, a replacement control village was added to the sample to bring the total number of control villages back to 75.

identify the largest integer at or below 2/3 of the number of villages in each TA. For example, for the TA with 5 villages, this integer is 3 since 2/3*5~3.33. Doing this for all five TAs yields 147 units that will be allocated to the intervention group. To select which TAs will get be assigned the extra 2 intervention villages, we next draw a random number from a uniform [0,1] distribution for each TA and rank the TAs using this random draw. The two TAs with the lowest random number draws, that did not have 27 villages (and therefore in which exactly 2/3 of the villages could be allocated to the intervention group), were each given one extra intervention unit. The outcome of this process is a target number of intervention and control villages in each of the 5 study TAs. The random assignment of villages to the treatment arms within TAs was then done by drawing another random number for each village from a uniform [0,1] distribution and ranking the villages using this random draw within each TA. Villages with a rank at or below the target number of intervention villages in each TA were allocated to the intervention group, and all other villages were allocated to the control group.[8]

4.5.2. Target groups

Following the policy recommendations of the National Resilience Strategy (NRS) (GoM 2018), the PROSPER Programme tailors interventions to three groups of beneficiary households: households that are (1) *hanging in*, (2) *stepping up*, and (3) *stepping out* of poverty. Dorward et al. (2009) define the *hanging in* as households who hold assets and engage in activities to "maintain livelihood levels, often in the face of adverse socio-economic circumstances." Households that are *stepping up* engage in activities and invest in assets to expand these activities "in order to increase production and income to improve livelihoods." Households that are *stepping out* of poverty engage in activities" to accumulate assets which in time can then provide a base […] for moving into different activities that have initial investment requirements leading to higher and/or more stable returns."

Each household in the communities targeted by PROSPER was assigned to one of these groups through a community wealth ranking exercise. However, the assignment of households to target groups was not yet completed at the time of the survey, and because of the nature of the community-based targeting techniques, the criteria for inclusion in one of the three groups were not exact. It was therefore not possible to determine which of the surveyed households belong to which target group, let alone to stratify the sample by the target group. However, since households were sampled at random, it can be expected that the three groups will be represented in the sample in the same proportions as in the overall population in the intervention areas.

In this report, we approximate household assignment into target groups by looking separately at ultra-poor households (whose total per capita consumption is below the food poverty line), poor households (whose total per capita consumption is below the national poverty line but above the national food poverty line), and non-poor households (whose total per capita consumption is above the national poverty line).

[8] The randomization was conducted in Stata 15 using a seed generated by random.org on July 10, 2019 at 07:22AM with a minimum possible value of 1 and a maximum possible value of 1000000.

4.6. Empirical strategy

4.6.1. Intent to treat (ITT) estimates

Because intervention is randomly assigned, the causal impact of the PROSPER Programme can be identified using the systematic variation in take-up generated by the random assignment of villages to the intervention and control group. The random assignment of villages to treatment groups ensures that unbiased estimates of the treatment effects can be estimated using simple differences, difference-in-differences, or Analysis of Covariance (ANCOVA) specifications because observable and unobservable characteristics of individuals, households, and communities will be balanced across the two study arms. However, ANCOVA models, which control flexibly for a baseline measure of the outcome, are likely to be the most efficient of the three estimators, particularly when the autocorrelation for the outcome being considered is low (McKenzie 2012). Therefore, for outcomes that are observed at both baseline and endline, the evaluation should use ANCOVA to generate the primary estimates, and simple differences and difference-in-differences models as robustness checks.

For outcomes that were not observable at baseline, simple differences specifications can be used to estimate treatment effects. The simple differences treatment effects can be estimated using the following Ordinary Least Squares (OLS) regressions:

$$Y_{1ihv} = \beta_0 + \beta_{1,SD} Treatment_v + \delta_x X_{0ihv} \quad + \varepsilon_{ihv} \,, \tag{1}$$

where Y_{1ihv} is the outcome measured at endline ($t = 1$), for individual i, in household h, in village v, β_0 is a constant term, $Treatment_v$ is an indicator equal to one if village v was randomly assigned to the intervention group, X_{0ihv} is a vector of observable characteristics for individual i measured at baseline ($t = 0$), and ε_{ihv} is an error term which we should be clustered at the village level. In this model, δ_x represents the vector of coefficients on the controls and $\beta_{1,SD}$ is the parameter of interest: the simple differences-based causal effect of being offered access to the PROSPER intervention on the outcome Y_{1ihv}.

Though $\beta_{1,SD}$ is an unbiased estimate of the causal effect of the PROSPER intervention, if a baseline measure of the outcome is available there are more efficient methods available. Treatment effects estimated through an ANCOVA specification will have lower variance[9] than the simple difference-based effects. ANCOVA treatment effects can be estimated by running the following OLS regression:

$$Y_{1ihv} = \beta_0 + \beta_{1,A} Treatment_v + \beta_Y Y_{0ihv} + \delta_x X_{0ihv} \quad + \varepsilon_{ihv}, \tag{2}$$

where $Treatment_{tv}$ is an indicator for whether village v was randomly allocated to the PROSPER intervention group, X_{0ihv} is a vector of controls, and ε_{ihv} is an error term which, again, should be clustered at the village level. In addition to providing more efficient estimates of the treatment effects, the ANCOVA model also estimates the relationship between the baseline and endline

[9] Though we know the variance of the treatment effects estimated through ANCOVA will be lower than the variance for those estimated with simple differences or difference-in-differences, we cannot know the size of the difference between the variances until we have collected endline data and estimated the autocorrelations for each outcome.

measures of the outcome. For outcomes that are observable at both baseline and endline, the evaluation should rely on an ANCOVA specification to generate the main treatment effect estimates.

4.6.2. Local average treatment effects (LATE) for PROSPER beneficiaries

The specifications described above enable us to estimate intent-to-treat (ITT) effects; that is, the point estimates capture the impact of the random offer of access to the PROSPER Programme on outcomes. However, under two assumptions[10] we can also estimate the local average treatment effect (LATE) of receiving the PROSPER programming for compliers: households that were induced to participate in the program by the randomly assigned village-level offer.

The first required assumption is that the PROSPER randomization only affected outcomes indirectly, by increasing the likelihood that households received the PROSPER programming. This would be violated, for example, if receiving a low random number draw during the randomization process somehow increased household expenditure. In most contexts this is a mild assumption and it seems extremely likely that it will be satisfied for the PROSPER evaluation.

The second assumption necessary for estimating LATE for compliers is that the randomly assigned village-level offer of access to the PROSPER intervention does not decrease the likelihood that any household or household member actually receives the programming. This assumption would be violated if, for example, the introduction to the program provided by the partner organization staff was so ineffective that it convinced households who otherwise would have discovered and participated in a PROSPER Programme activity, not to participate in the program activities occurring in their village. In practice, it is hard to envision a scenario where this assumption is violated in the context of the PROSPER evaluation.

If both assumptions are satisfied, the LATE for complier households can be estimated through Two Stage Least Squares (2SLS) estimates of the ANCOVA or simple difference models discussed in the previous subsection, using the random assignment of villages to receive the PROSPER intervention as an excluded instrument for observed take-up of the program.[11] Specifically, we estimate the following models:

$$Y_{1ihv} = \beta_0 + \beta_{1,2SLS}\widehat{TT_{hv}} + \beta_Y Y_{0ihv} + \delta_x X_{0ihv} \quad + \varepsilon_{ihv}; \tag{3}$$

$$TT_{hv} = \gamma_0 + \gamma_{1,A} Treatment_v + \gamma_Y Y_{0ihv} + \gamma_x X_{0ihv} \quad + u_{ihv}; \tag{4}$$

where $Treatment_v$ is the indicator for whether the household resides in a village v that was assigned to the PROSPER intervention group, and TT_{hv} is an indicator for whether household h in village v actually participated in the PROSPER Programme activities. $\widehat{TT_{hv}}$ is the predicted value for the take-up of household h in village v from the take-up equation (the second equation listed above). In this context, $\beta_{1,2SLS}$ represent the estimated effect of receiving the PROSPER programming for the sub-sample of households that are induced to participate in the program by the randomly assigned offer.

[10] See Imbens and Rubin (2015) for a complete discussion.

[11] For the linear models specified in this context, the 2SLS estimates of LATE for compliers will be equal to the ratio of the ITT estimate of the intervention on the outcome to the ITT estimate of the intervention on take-up of the program.

The LATE treatment effects for compliers provide an alternative but still policy relevant parameter to the previously discussed ITT effects; they represent, albeit for a specific sub-population (compliers), the causal effect of actually participating in the PROSPER programming. Both the ITT and LATE parameters should be estimated and discussed in order to provide more complete conclusions about the causal effects of the program.

As with any longitudinal study, the attrition of households between baseline and endline poses a potential problem. We mitigate this risk by collecting detailed GPS and contact information for each household in the sample. When endline fieldwork begins, this information can be used to help ensure that: 1) the fieldwork team has the correct residential location for all households in the sample, and 2) the households are available on the planned day for their endline interview. Undoubtedly, there will be still be attrition between the two survey rounds, though we do not expect any differential attrition by treatment arm. As a robustness check, we use baseline data to predict endline participation, generate endline survey completion weights (the inverse of the predicted probability of completing the endline survey conditional on baseline characteristics), and ensure that the results are robust to including these weights in the above listed empirical specifications.

4.6.3. Statistical inference

With 224 study clusters included in the quantitative evaluation, statistical inference based on cluster-robust standard errors is likely to be valid and result in tests of the correct size (Bertrand et al. 2004). However, for each outcome the evaluation should also conduct randomization inference as a robustness check on the tests that rely on the asymptotic normality of a test statistic based on a finite sample (Fisher 1935; Rosenbaum 2002; Greevy et al. 2004; Imbens and Rosenbaum 2005; Small et al. 2008). Randomization inference offers a non-parametric alternative for testing the sharp null hypothesis of no treatment effect for any household.[12]

To conduct randomization inference for the sharp null hypothesis of no treatment effect for any household, we proceed as follows. First, calculate the test statistic, for example the difference in mean outcomes between villages actually assigned to the PROSPER intervention group and villages assigned to the PROSPER control group, $\hat{\beta} = \bar{y}_{ihv,T=1} - \bar{y}_{ihv,T=0}$. Next, conduct $R = 100{,}000$ placebo intervention assignments. That is, 100,000 different times, re-assign 149 of the 224 sample villages to a placebo intervention group and the other 75 to the placebo control group. For each repetition r, calculate the treatment effect, which under the null of no effect for any household is simply $\hat{\beta}_r = \bar{y}_{ihv,T_r=1} - \bar{y}_{ihv,T_r=0}$. Here $T_r = 1$ denotes that the household resides in a village that was assigned to the placebo intervention group in repetition r, $T_r = 0$ indicates that the village was assigned to the placebo control group in repetition r, and by the null of no effect for any household $y_{ihv,T_r=1} = y_{ihv,T_r=0}$, so the observed outcome does not need to be adjusted.

After performing the placebo intervention assignment 100,000 times, there will be a distribution of test statistics from all the repetitions: $\{\hat{\beta}_r\} = \{\hat{\beta}_1, \ldots, \hat{\beta}_R\}$. To assess the plausibility of the observed test statistic ($\hat{\beta}$) under the null hypothesis, calculate the share of repetitions for which $\hat{\beta}_r > \hat{\beta}$. This share is an empirical p-value for the sharp null of no treatment effect for any household.[13]

[12] In practice, Randomization Inference can be used to test the sharp null of a treatment effect of any size, not just no treatment effect.

[13] Though the exact p-value could be computed by generating all $\binom{224}{149}$ possible treatment assignments, this is computationally infeasible. With 100,000 repetitions, the empirical p-value will have a standard error less than or equal to $\frac{1}{2\sqrt{R}} = 0.0016$.

5. BASELINE DATA COLLECTION

5.1. Ethics and safeguarding

IFPRI received ethics approval from its internal Institutional Review Board (IRB) for the evaluation design described in Section 4 and for the quantitative survey. The letter of authorization is included in this document as Annex A. Approval for the same was received from the National Committee for Research in Social Sciences and Humanities (NCRSH) in Malawi. The letter of approval is included in Annex B.

As an overall guiding principle, the research team followed the precept of 'do no harm' and sought to conduct itself in a professional and ethical manner throughout the initial exploratory study, with respect for integrity, honesty, confidentiality, voluntary participation, impartiality, and the avoidance of personal risk. These principles were guided by the OECD (2010) DAC Quality Standards for Development Evaluation and DFID's (2011) Ethics Principles for Research and Evaluation, which was followed for the duration of the evaluation.[14]

Specifically, the RCT was designed in a manner that ensured that participants were not deprived of humanitarian assistance when needed, and random sampling of households from a census conducted door-to-door by the survey team ensured prevailing power and gender dynamics did not play a role in sample selection. Informed, written or oral, consent was collected from all participants prior to the start of the interviews, and survey questionnaires did not seek personally sensitive information. The entire field team was trained on ethical data collection. To compensate them for the time spent during the interview, households participating in the baseline survey received two bars of soap and 500 g of salt at the end of their interview. The value of the gift was approximately MWK430 (US$0.60) at the time of the survey. Respondents were not aware of the gift when consenting to be interview, so they could not base their answers – or the decision to consent to the interview in the first place – on the prospect of the gift. Participants in the community interview received a snack and a soft drink as a token of appreciation.

Confidentiality of the data is protected by recording survey interview responses using Computer Assisted Personal Interviewing (CAPI), so no hard copy versions of survey questionnaires are available. All files containing raw and analyzed data are securely stored in password-protected databases.[15] Access to the complete data is restricted to the IFPRI evaluation team. A unique household ID is assigned to each household. The name and geographic location of the respondent will be kept in a separate data file to which only the research team will have access. Anonymized versions of the data sets that exclude these personal identifiers will be the ones made available for public access. Files enabling personal information will be securely handed over to the long-term KPISM.

5.2. Data management

All intellectual property rights in any materials produced from the baseline survey for the impact evaluation (including publication of research findings and any other reports and data) remain the property of IFPRI, as the research team that designed the impact evaluation and conducted the

[14] The impact evaluation was designed, and baseline data collected, prior to the publication of DFID ethical guidance for research, evaluation and monitoring activities in October 2019, but generally follows the same principles.

[15] Upon discussion with DFID, it was agreed that the Principles for Digital Development – as outlined in DFID Digital Strategy 2018 to 2020: doing development in a digital world (DFID 2018) – do not apply to the CAPI tools used in for this research since beneficiaries of the program will not interact with the tools directly (it is instead the members of the survey team who are the users of the tools). The principles were nonetheless applied during the design of the CAPI tools.

baseline survey. IFPRI and all sub-contracted partners undertaking data collection have specific arrangements in place for handling data generated from the project in accordance with the Data Protection Act (1998) which includes the processing and storage of any sensitive personal data and maintenance of privacy. DFID has unlimited access to any material produced from the evaluation through IFPRI's contract with DFID. In order to promote use and uptake of the evaluation findings and in line with DFID's Enhance and Open Access Policy, the evaluation team is committed to ensuring all major report outputs and associated data generated from this project are made publicly available in an accessible format. Following approval of the report from DFID, the baseline report will be made available on IFPRI's website. All datasets will also be made available within 12 months of final data collection on IFPRI's page at the Harvard Dataverse web site: https://dataverse.harvard.edu/dataverse/IFPRI.

5.3. Survey instruments, enumeration team and trainings

Where appropriate, the survey instruments were largely based on older questionnaires to maximize comparability with existing datasets. We adapted questionnaire modules from the Fourth Integrated Household Survey (part of the World Bank's Living Standards Measurement Survey) developed by the National Statistical Office of Malawi and the World Bank (World Bank 2017), the Global Preferences Survey (Falk et al. 2016), and from the questionnaire used by Catholic Relief Services in their MIRA project (Knippenberg 2018). The instruments were translated from English to Chichewa and back-translated – by a different translator –to English, following which any language inaccuracies were corrected. The instruments were then programmed by IFPRI researchers in Open Data Kit (ODK),[16] an open-source computer-assisted personal interviewing (CAPI) software. Imani and IFPRI staff tested the CAPI version of the questionnaire at length to check that answer codes and skip patterns were correct for each question, that all questions appeared if and when they should, and to make sure that the software performed without significant issues. The CAPI program was then uploaded onto tablets for the beginning of enumerator training. The wording of the household questionnaire questions is available in Annex F. For the wording of community questionnaire questions, see Annex E.

Enumerator training for the baseline data collection activities was conducted in Blantyre between August 5, 2019 and August 8, 2019. The training was led by senior staff members from Imani Consultants, an associate research fellow and a research analyst from IFPRI. 8 teams each consisting of 5 enumerators and 1 supervisor were trained, along with 8 backup enumerators. Following the training, the instruments were pre-tested in Blantyre-rural district to identify questions that were poorly understood by rural households and to make sure that the average duration of an interview would not exceed two hours. After necessary changes were made to the survey instruments, another training session was held on August 23 to bring the enumerators up to date with the final version of the instruments.

The data collection team was careful to ensure quality of the data collection. This was done primarily in three ways. First, team supervisors travelled with the enumeration teams, sat in on interviews, and reviewed the data being collected. Second, the fieldwork manager and the IFPRI research analyst were present for the first week of household survey fieldwork, during which time they also sat in on household interviews, checked the data being recorded, and offered additional feedback to enumerators. Third, the CAPI was programmed in such a way that most data inconsistencies would be highlighted immediately for the enumerator.

[16] More information on ODK can be found on their website: https://getodk.org/

Baseline data cleaning and analysis were conducted by Edwin Kenamu of IFPRI in Lilongwe, Malawi and Rachel Gilbert of IFPRI in Washington, DC, using Stata 16 between October 2019 and March 2020.

5.4. Data collection procedures

5.4.1. Introductions

All protocols that need to be observed in the field work were followed. More specifically, on Monday, August 26th, the teams visited the District Commissioners of both Phalombe and Balaka to formally introduce themselves and notify the commissioners about their presence in the districts for the duration of fieldwork. The teams also introduced themselves to the police as well as the relevant TAs. At the start of each day, when working in a new community, the Supervisor would make a courtesy call to the GVH and ask for permission to work in their villages for the following few days. Once permission was granted at the GVH level, the team proceeded to meet with Village Heads (VH). VHs provided the final tier of approval for the teams to enter and work in their villages.

5.4.2. Identification of village locations and boundaries

Meetings with TAs guided teams to the GVHs, and subsequently to the location of individual villages. Then with the assistance of the VH and other community members, the teams acquired the necessary information on where the boundaries of each of the villages were. In cases where there were some disputes between villages and their respective boundaries, the Supervisors called on VHs for clarification.

5.4.3. Community listing exercise

A complete door-to-door household listing was done in all 224 intervention and control villages. Initially, it was not in the scope of work for Imani to do the household listing in the 149 intervention villages as these villages had already been listed by the implementing partners. However, upon identifying incongruences between the listing methodologies used for the control group and the intervention group, it was decided that Imani would apply the door-to-door methodology proposed for the control villages listing exercise to do listing across the whole sample of villages.

Given the demarcation of the village boundaries, the Supervisor spilt the team of five Enumerators and instructed them to walk in different directions and list the households whom they came across. For the purpose of this study, a household is defined as the group of family members who live together and eat from the same pot. Therefore, a household may consist of multiple dwellings. In order to not duplicate listings and for the ease of identifying households that had been selected for the survey, each listed household was given a specific code which was written in chalk on the front door of the household. This code followed the format of:

For example, the **third** household listed by **Chisomo Tambala** in a village would have the code: **BRACC/003/CT**.

On each of the listing forms there was space to record: district, TA, Village name, Enumerator name, Date, and Supervisor name. Specific information for each of the households listed included: household code/number, name of household head, gender of household head, total household size, and spaces to record two phone numbers if the household had phones. Please see Annex D for the Household Listing Form. Both scanned and hard copies of the household lists have been delivered to IFPRI.

In total, the data collection team listed 29,850 households.

5.4.4. Household sampling

The left-hand column of the household listing form was used to chronologically number (ascending from 1) the household lists from each of the enumerators once the listing exercise was complete. The list of numbers indicates the total number of households in a village.

For the random selection of 14 households per village, a random sampling generator excel file was used. Supervisors were required to input the total number of households in the village into the generator, and as an output the generator randomly selected 14 household numbers. The generator also provided three replacement households in case there were no respondents present for interview when the enumerators visited the 14 initially selected households. Selected households are highlighted on the household listings forms.

5.4.5. Assigning households to enumerators

The 14 randomly selected households were equally divided to the enumerators based on their familiarity to the house location. However, due to the number of household surveys required per village and the number of enumerators per team, some enumerators would have to do one more survey than others on certain days but over time the workload difference would equal out. Supervisors attempted to give enumerators randomly selected households that they themselves had listed, as familiarity would help with locating the household and build on the rapport established when the household was first visited during the listing exercise. This was not always possible though as it depended on the outcome of the random sampling.

5.4.6. Informed consent

Respondents at the selected household were required to understand and sign informed consent forms (see Annex C) before being interviewed. The forms were administered in Chichewa, in which the enumerator read an introduction to the survey and requested consent from the respondent. If willing, respondents were requested to sign a consent agreement; one in Chichewa which they kept and another in English, which was retained by the Enumerator. All signed consent forms are filed and stored for safe keeping at Imani offices in Blantyre. In cases where respondents were not able to sign for themselves, a witness was asked to sign on their behalf.

5.4.7. Appointments for community interview

Upon initial introductions to the VH, supervisors also requested VHs to assist them in identifying community members who could participate in the community questionnaire. In most cases, appointments for the community questionnaires were made on the day when household listing was completed in the village. The time and place of the meeting, which sought to fit most conveniently for the participants, were agreed on.

5.4.8. Household interview administration

14 household interviews and one community interview, conducted by the Supervisor, were completed per village. In most cases these were achieved in one working day. However, there were a few times when the task was split over two days. On average it took slightly over four working days to list and survey three villages.

On most interviewing days, four out of five Enumerators would be tasked with completing three household interviews whilst one out of five would do two. Supervisors were tasked with managing the workload of their Enumerators, though it was encouraged that each member of the team would get the chance of doing two interviews on some days.

5.4.9. Insurance subsidy coupons

In all intervention villages, each interviewed household was presented with a subsidy coupon which can be used when purchasing a funeral and health insurance product from CUMO. The respondent was first presented with laminated copies of 5 coupons, each with a different subsidy value (MWK0, MWK300, MWK600, MWK900, and MWK1,200) and the enumerator explained that in the coming months or years, CUMO, PROSPER's microfinance partner, will come to the village to sell insurance and that these coupons can be used to pay for (part of) the policy costs. The enumerator then shuffled the laminated coupons, placed them face down, and let the respondent choose one, thus ensuring random assignment of the subsidy. The respondent was then issued with an actual coupon with the same value as that chosen at random. The enumerator wrote the respondent's name on the coupon and recorded the coupon's serial number and value in the survey instrument. The blind draw of the subsidy level by the respondent ensured that each household faced the same probability of receiving any given level of subsidy.

5.5. Fieldwork challenges and remedial actions

During the fieldwork, several challenges were encountered by the teams in Balaka and Phalombe. This section reports on those challenges and the actions taken towards resolving them. The management team at Imani received consolidated daily reports of achievements, challenges, and action plans from each of the teams in the field. Here we draw on some of the major challenges faced by the team and the outcomes. Please note, however, that not all communication between field teams and Imani management has been captured in these daily reports; as mentioned earlier, communication between the members of the team was predominantly achieved over WhatsApp and phone calls. Therefore, there may be instances where minor challenges have not been reported on.

Supervisors were instructed to immediately report such challenges to the field manager so that challenges could be rectified as soon as possible. Below are some of the challenges that were encountered throughout fieldwork:

1. Initiation/rite of passage ceremonies *"Chinamwali"* were taking place during the first week of the survey in most villages, both in Balaka and Phalombe. These made it difficult for enumerators to find household heads in most villages visited as they were out for the ceremonies. This mainly occurred in Kabota (20802) and Irimu (20502) villages. In households where there were no household heads available, the survey team would interview other members of household who had knowledge of the household. In Kabota Village, the interviews were postponed and scheduled for another day.

2. Some tablets could not pick the GPS coordinates even after several minutes of waiting. An application "GPS Essentials" was installed on most tablets to assist with recoding the GPS

coordinates, however this remained a challenge on some tablets throughout the survey period.

3. In a few cases, the ODK application crashed on some tablets; these tablets had to be switched off and then restarted for ODK to function properly again. This made it difficult for enumerators to finish their survey targets for the specific days. Two tablets that were specifically problematic in this regard were replaced with new tablets.

4. Most households in TA Mbera are involved in the FFA and MASAF programs and they were only available for interviews between 11 am and 2 pm; limiting the time for Enumerators to carry out interviews for selected households. For affected villages, after the random selection process was completed, the Chief for the village was consulted to better understand the public works program. In cases where the selected household worked on the program, interviews were scheduled for when the respondent would be available (usually during their midday break). Where this was not possible, replacement households were used.

5. In a few cases some Enumerators and Supervisors encountered language barrier challenges with their respondents. This was mostly experienced in the villages under TA Kalembo in Balaka, where Chichewa is not the first language. Members of the team who had difficulty understanding Yao used translators to assist them in administering the interviews. When this happened, the team was instructed to make a note in the comments at the end of the interview.

6. Four households were not listed in Mukwala Village with instructions from the Chief as these households do not take part in development related activities; therefore, they did not form part of the random sampling for the survey.

7. In some cases, Enumerators selected the wrong village name in ODK when administering the survey, resulting in more or less than the required number of 14 household interviews per village. This was rectified by tracking the day the interviews were conducted, Enumerator, Supervisor, and household head name and compared these with the listing forms for each village; mistakes were noted and reported on in a data corrections file.

8. Similarly, this had also occurred in a few instances with the community interview administered by the Supervisors. However, it was identified that there were several villages with the same name across the different TAs and even though the correct village name may have been selected during the actual questionnaire, the recorded village code in the dataset may have been of one with the same name in a different TA and hence with the wrong village code. Appropriate corrections were made during data cleaning.

9. One of IFPRI's tablets was dropped in the final week of fieldwork; the screen smashed but it did not affect the functioning of the tablet. The tablet has been repaired by Imani and returned to IFPRI.

10. The CUMO coupon subsidy messaging was delivered incorrectly by two teams; one throughout fieldwork (Team 6) and one from August 30 onwards (Team 4). This was communicated to IFPRI.

11. In two cases, control villages received CUMO coupons when they should not have. These were Msuwo Village (11604) and Jumbe Village (10105). This was communicated to IFPRI, and the outcome was to leave the coupons with the respondents.

12. Finally, one village – Momora in T/A Nazombe – appeared twice in the sample which IFPRI provided based on NSO census data: once under GVH Kaliati as a control village and once under GVH Yuwa as an intervention village. This happened because the authority over the village shifted from GVH Kaliati to GVH Yuwa around the time of the census. Upon consultation with IFPRI, Momora was sampled as an intervention village number 52102, and Muwake under GVH Khurumura in T/A Nazombe added to the sample as a control village number 50403.

6. BASELINE DATA

Baseline data were successfully collected from 3,136 households between August 28, 2019 and October 9, 2019. In this section, we discuss the data with two primary goals: (1) describing the characteristics of the household sample, especially those relevant to the resilience-building interventions being evaluated and (2) assessing balance in baseline characteristics across the two village level treatment groups.

6.1. Population characteristics

To describe the characteristics of the baseline survey sample and the underlying population, we present the means and standard deviations from baseline data for the full sample. The means are calculated using sampling weights that make the statistics representative of the population from which the sample was drawn, i.e. the population of the GVHs from within which the surveyed villages were selected.

We then disaggregate these statistics by several household characteristics:

- Gender of household head (male and female)
- Age of household head (youth, middle-aged and elderly)
- Poverty status (ultra-poor, poor, and non-poor)
- Disability status (household without and with a disabled member)
- Geographic location by TA

To assess whether there is any meaningful difference between the means of pair-wise disaggregates (gender of household head and disability status), we present the p-value from a t-test of a null hypothesis that there is no difference in means between the two sub-samples. This p-value is computed based on a t-test of the null hypothesis that there is no difference between the two sub-samples, from a regression of the characteristic on an indicator for whether each household belonged to one of the sub-samples or the other with clustering standard errors at the village level. By convention, a difference is considered statistically significant if the corresponding p-value is below 0.05.

For characteristics disaggregated to more than two sub-samples (age of household head, poverty status, and geographic location), reporting pair-wise comparisons would result in an impractical proliferation of tables. In these cases, we instead present the p-value from an F-test of a null hypothesis that the belonging to one of the sub-samples does not help explain the value of the characteristic in question. This p-value is computed by running a simple regression for each of the characteristics as an outcome variable and dummy variables for membership in each of the sub-samples as regressors. The F-test of overall significance of this regression then gauges whether the group membership dummies jointly predict the value of each household characteristic. The p-values

should be interpreted in the same way as those from a t-test: in models whose F-tests result in p-values lower than 0.05, there are statistically significant differences between the sub-samples in terms of the tested characteristic.

Each table of baseline data is accompanied by a brief discussion of the presented statistics. Further disaggregated tables, as requested by the PROSPER consortium, are provided in Annex G.

6.1.1. Household demographics

Table 6.1 summarizes the demographic characteristics of the population underlying our baseline sample. On average, households have 4.5 members with a dependency ratio[17] of 1.2. 36.9 percent of households have a female head. Household heads are on average 41.4 years old. 15.7 percent are youth-headed while 13.3 percent are elderly-headed. 83.1 percent of household heads have at least some education, and the highest-educated household member (which could be the head, spouse or another household member) received on average 7.8 years of schooling. 63.9 percent of household heads are in a monogamous marriage, 5.5 percent are in a polygamous marriage, 1.3 percent were never married, with the remainder being widowed, divorced or separated.

Table 6.1: Demographics

	N	Mean	Standard deviation
Household size	3,136	4.490	(1.942)
Dependency ratio	2,996	1.173	(0.934)
Female-headed household	3,136	0.369	(0.483)
Age of the household head	3,134	41.428	(17.359)
Household head <25 years	3,127	0.157	(0.364)
Household head >64 years	3,127	0.133	(0.340)
Household head has some education	3,136	0.831	(0.375)
Highest level formal education in household (years)	3,136	7.832	(3.345)
Household head never married	3,136	0.013	(0.115)
Household head in monogamous marriage	3,136	0.639	(0.480)
Household head in polygamous marriage	3,136	0.055	(0.227)

Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households are on average smaller (4.1 members) than male-headed ones (4.7 members), but they have a higher dependency ratio (1.5) than male-headed households (1.0). Female-headed households are less educated than male-headed ones: 30.0 percent of female heads of household never attended school compared to only 9.8 percent of male heads, and the most educated members of female-headed household had on average 6.9 years of formal education compared to 8.4 years in male headed households. Female heads of household are on average older than their male counterparts, and, predictably, are less likely to be married (see Table A.1 in the Annex).

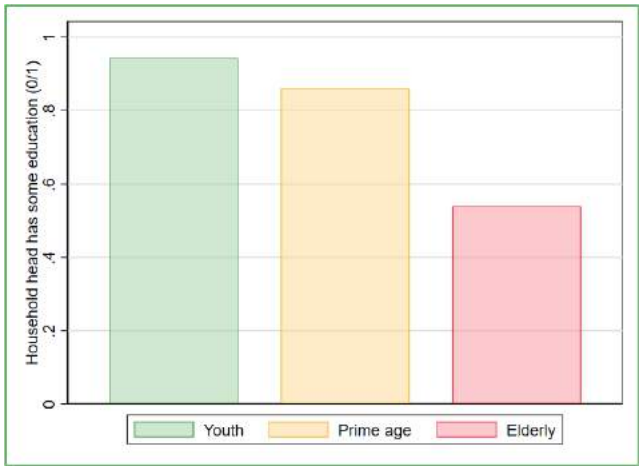
We also present household demographics separately for households headed by youth (heads younger than 25 years), prime-aged adults (25-64 years) and the elderly (older than 64 years) (see

[17] The household dependency ratio is calculated as the ratio of nonworking age household members to working age household members. Household members older than 14 years and younger than 65 years are considered working age.

Table A.2). Predictably, youth-headed households are relatively small (3.1 members) (Figure 6.1) and have a low average dependency ratio (0.85). Young household heads are also likelier than others to have at least some formal education (94.3 percent) (Figure 6.2) and to have never been married (6.1 percent).

Figure 6.1: Household size by age of head

Figure 6.2: Education by age of head



Source: Prepared by IFPRI-Malawi.

Elderly-headed households, on average have, 3.8 members, which is less than households with prime-aged heads (4.9 members) (Figure 6.1). They have the highest dependency ratio (1.8) and their head is a woman in 53.6 percent of cases. As expected, they are also much less educated: 46.1 percent of elderly household heads have no formal education (Figure 6.2), and the highest educated member in the household has only 6.2 years of formal education on average.

Additionally, we subdivide households according to their poverty status: ultra-poor, poor, and non-poor (Table A.3).[18] Poorer households are larger (Figure 6.3), have higher dependency ratios (Figure 6.4), and are less likely to be youth-headed than their better-off counterparts. Ultra-poor households are on average less educated than their better-off counterparts, but there is not much difference between poor and non-poor households in terms of education.

[18] Poverty status is defined in terms of annual per-capita consumption as compared to two thresholds: the national poverty line and the national food poverty line. Households consuming less than the national food poverty line may not be able to satisfy their nutritional needs and are considered ultra-poor. Households consuming more than the national food poverty line but less than the national poverty line are should be able to satisfy their nutritional needs but may not be able to satisfy all their other basic needs and are considered poor. Households consuming more than the national poverty line should be able to satisfy all their basic needs and are considered non-poor. For details on household consumption and poverty status classification, see section 6.1.7.

Figure 6.3: Household size by poverty

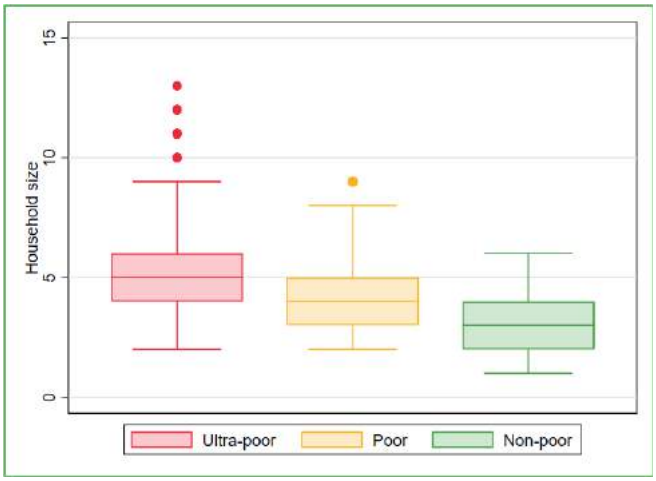
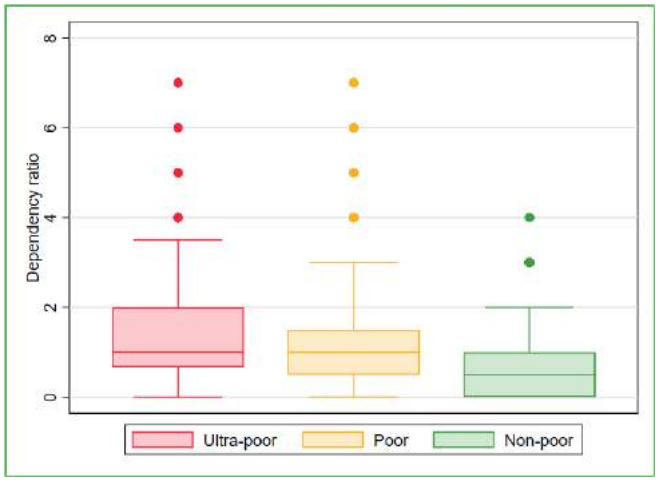


Figure 6.4: Dependency ratio by poverty



Source: Prepared by IFPRI-Malawi.

Households with a disabled member[19] are on average slightly larger (4.7 members) and have a higher dependency ratio (1.3) than those without disability (4.3 members, dependency ratio of 1.1). Their heads are more likely to be female (40.7 percent) than the heads of households without a disabled member (34.1 percent). They are on average more than 8 years older, and almost 3 times as likely to be elderly, as heads of households without a disabled member. Considering that disability often comes with age, this likely means that the disabled household member is often the head herself. Households with disabled members are slightly less educated than those without disability (Table A.4).

Looking at household demographics separately by TA (Table A.5: Demographics by TA, those in the two TAs in Balaka district (Kalembo and Mbera) are more likely to be headed by a woman than households in Phalombe district. Household heads in Balaka are somewhat less educated than those in Phalombe and are less likely to be married.

6.1.2. Disabilities

Table 6.2 presents summary information on the disabilities faced by the members of the households in our sample and its underlying population. 42.3 percent of households have a disabled member. The most common disabilities are difficulty walking (18.1 percent) and difficulty seeing (17.4 percent), followed by difficulty with self-care (11.8 percent) and difficulty hearing (11.2 percent).

[19] Disabilities include difficulty seeing (even if wearing glasses), difficulty hearing (even if using hearing aid), difficulty walking or climbing steps, difficulty remembering or concentrating, difficulty with self-care (e.g. washing or dressing), difficulty communicating (understanding or being understood), and albinism. See section 6.1.2 for details.

Table 6.2: Disabilities

	N	Mean	Standard deviation
Household has a member with			
difficulty seeing, even if wearing glasses	3,136	0.174	(0.379)
difficulty hearing, even if using hearing aid	3,135	0.112	(0.316)
difficulty walking or climbing steps	3,136	0.181	(0.385)
difficulty remembering or concentrating	3,136	0.163	(0.369)
difficulty with self-care e.g. washing or dressing	3,135	0.118	(0.322)
difficulty communicating	3,134	0.108	(0.311)
albinism	3,135	0.023	(0.150)
any disability	3,136	0.174	(0.379)

Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households are more likely to have a disabled member (46.7 percent) than male-headed ones (39.8 percent). This difference is due mainly to difficulty seeing, difficulty walking and difficulty remembering or concentrating (Table A.6).

Predictably, fewer youth-headed households (30.8 percent) have a disabled member than households headed by a prime-aged adult (40.1 percent), who in turn are fewer than elderly-headed households with a disabled member (67.5 percent). This trend also holds for each disability separately, apart from albinism (Table A.7). Interestingly, ultra-poor and poor households are no more likely to have a disabled member than non-poor households (Table A.8). Geographical location also has little association with disability status (Table A.9).

6.1.3. Household wealth

To measure household wealth, we constructed asset indices to help summarize household responses to many asset- and wealth-related questions. For the asset indices, we generate indicators for whether the household owned at least one of each asset in that class (e.g. bed and radio are included in the durable assets index, hoe and plough are included in the agricultural asset index). Principal component analysis was then used to identify the first orthogonal component—the linearly independent component that explains the highest fraction of the total variance in the class—and that component is used as the index for that asset category. We produce separate indices for household consumer durable assets[20] and household agricultural assets.[21] The magnitudes of the index values do not have a meaning in and of themselves but are useful when comparing one household (or a group of households) to another. We also approximate the total value of household durable assets and compute total livestock holdings in terms of TLUs.[22]

The average household in the full sample holds MWK1.1 million worth of durable assets. However, means are sensitive to extreme values, and this mean is skewed by a few households who reported

[20] The assets included in the household consumer durable asset index are mortar, bed, tables, chairs, radios, bicycle, iron (charcoal or electric) and solar panels. Assets that were owned by less than 5 percent of the sample were not used in calculating the asset index.

[21] The assets included in the household production asset index are axe, panga, sickle, watering can, chicken house and kraal. Assets that were owned by less than 5 percent of the sample were not used calculating the asset index.

[22] The Tropical Livestock Unit (TLU) is a number that is used to aggregate different species of livestock. The TLU normally equals an animal of 250 kg live weight. In converting the livestock to TLUs, cattle get a factor of 0.7; sheep and goats get a factor of 0.1; pigs get 0.2; and chickens 0.01.

very large asset holdings (up to MWK2 billion). The typical (median) household owns assets worth only MWK15,000 (Table 6.3). The skewedness of asset holdings is illustrated in Figure 6.5 and in Figure 6.6, which plot asset value distribution by age of household head and by poverty status respectively. When the value of assets of the top 1 percent of households is replaced with the largest value among the remaining 99 percent (MWK1.22 million), the mean drops to MWK64 thousand. In the remainder of this report, we use asset values adjusted in this way. Similarly, the average household owns 0.13 TLU of livestock (equivalent to 1 goat and 3 chickens), but the typical (median) household does not own any livestock at all.

22.9 percent of households have access to some financial services (as proxied by at least one household member having an account with a formal or informal financial institution, such as a bank or a village savings and loans association).

Table 6.3: Wealth

	N	Mean	Standard deviation	Median
Durable asset index scores	3,136	0.058	(1.290)	0.000
Total value of all household durable assets ('000,000 MWK) – full sample	3,136	1.111	(35.511)	0.015
Total value of all household durable assets ('000,000 MWK) – winsorized at 99%	3,136	0.064	(0.184)	0.015
Agricultural asset index scores	3,136	0.031	(1.365)	-0.423
Tropical Livestock Units	3,136	0.132	(0.476)	0.000
At least one household member has a bank account	3,134	0.229	(0.421)	

Note: Estimates from the BRACC Baseline Survey sample.

Figure 6.5: Asset value by age of head

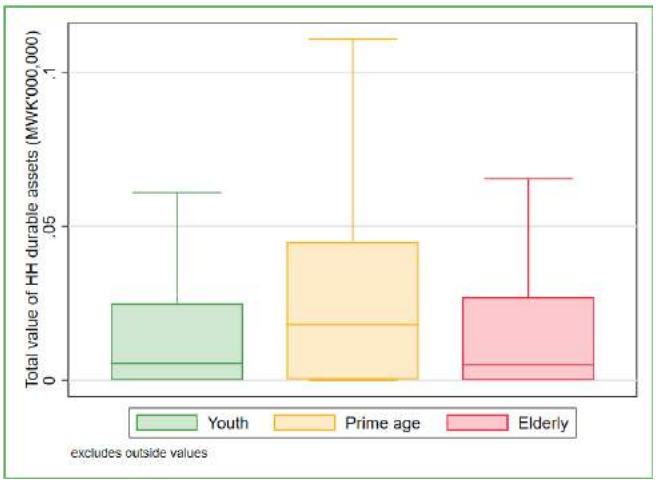
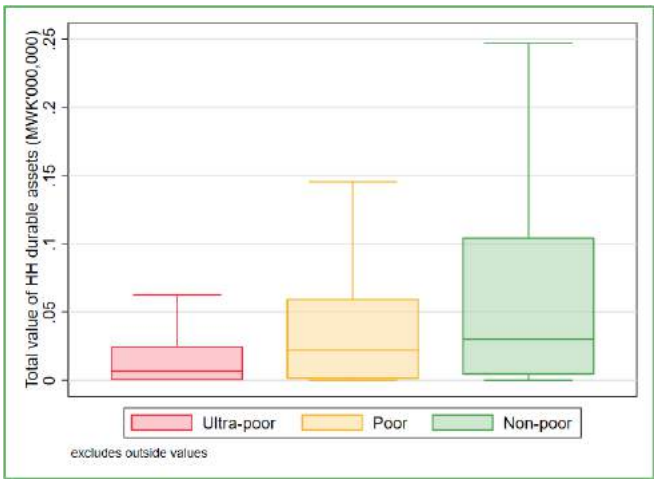


Figure 6.6: Asset value by poverty



Source: Prepared by IFPRI-Malawi.

Male-headed households are generally wealthier than female-headed households (in terms of durable assets, agricultural assets as well as livestock holdings) and have better access to financial services (Table A.10). Similarly, households headed by a prime-aged adult are wealthier (Figure 6.5) and have better access to financial services than youth-headed and elderly-headed households (Table A.11). Predictably, poorer households (as classified based on their consumption, see Section 6.1.7 for details) are also less wealthy in terms of durable and agricultural assets (Figure 6.6) as well as livestock holdings, and have worse access to financial services, than their better-off counterparts (Table A.12). Less predictably, households with a disabled member have on average

more agricultural assets than households without disability, although they are statistically indistinguishable when it comes to other measures of wealth (Table A.13). Households in Phalombe, especially in TA Kaduya and TA Mkhumba, have on average more agricultural assets and livestock than households in Balaka (Table A.14).

6.1.4. Household agricultural production in 2018/19 season

Table 6.4 summarizes farm production undertaken by households in our sample and in the underlying population. The vast majority (93.9 percent) of households are engaged in farming, owning or managing on average of 1.6 plots with a total average area just below 1.5 acres per farming household. Crop diversity is low with households growing just 1.6 crops on average (53.4 percent of farming households grow only one crop, 32.7 percent grow two crops, and only 13.9 percent grow three or more crops) and a Simpson's diversity index of less than 0.5.[23]

Table 6.4: Agricultural production

	N	Mean	Standard deviation
Engaged in farming	3,136	0.939	(0.239)
Number of plots owned or managed	3,048	1.596	(0.896)
Plot area (acres)	2,985	1.136	(9.733)
Number of crops grown	2,985	1.643	(0.867)
One crop grown	2,985	0.534	(0.499)
Two crops grown	2,985	0.337	(0.473)
Crop diversity (Simpson's Index)	2,947	0.451	(0.410)
Food crops grown			
Maize	2,985	0.988	(0.110)
Groundnuts	2,985	0.130	(0.337)
Pumpkin leaves	2,985	0.098	(0.297)
Sorghum	2,985	0.093	(0.290)
Rice	2,985	0.064	(0.245)
Pearl millet	2,985	0.028	(0.164)
Cassava	2,985	0.021	(0.144)
Sweet potato	2,985	0.013	(0.115)
Cash crops grown			
Pigeon pea	2,985	0.583	(0.493)
Tobacco	2,985	0.064	(0.245)
Soybean	2,985	0.061	(0.240)
Sunflower	2,985	0.059	(0.236)
Cotton	2,985	0.025	(0.155)

Note: Estimates from the BRACC Baseline Survey sample.

[23] Simpson's diversity index takes on values from 0 (no diversity with only one species) to 1 (maximum diversity with only one plant per species) and reflect both richness (number of species) and evenness (relative abundance of species). A plot split half and half between two crops will thus have a higher Simpson's index than a plot mostly taken up by one crop, with a second crop grown only on a small part of it.

98.8 percent of farming households grow maize. Other food crops are grown much less often, the next most common being groundnuts (13.0 percent), pumpkin leaves (9.8 percent), sorghum (9.3 percent), rice (6.4 percent), pearl millet (2.8 percent), cassava (2.1 percent) and sweet potato (1.3 percent). We do not report crops grown by fewer than 1 percent of farming households.

The most common cash crop is pigeon pea (grown by 58.3 percent of farming households), followed by tobacco (6.4 percent), soybean (6.1 percent), sunflower (5.9 percent) and Cotton (2.5 percent). Cash crops grown by fewer than 1 percent of households, such as cotton, are also not reported.

Female-headed households on average own or manage fewer plots of a smaller total area than male-headed ones. They grow on average fewer crops than their male-headed counterparts, but the proportions of the crops that they do grow are more even, as evidenced by the almost equal Simpson's index (Table A.15).

Youth-headed households are less likely to engage in farming than other households, and when they do, they own or manage fewer plots with a smaller total area and grow fewer types of crops than households headed by prime-age adults or the elderly (Table A.16).

Poorer households are more likely to farm than their better-off counterparts but do so on smaller land areas. They are less likely to grow pigeon peas – the most common cash crop – and groundnuts, but otherwise do not differ much from their better-off counterparts in terms of crops grown (Table A.17).

Interestingly, households who have a disabled member farm on larger land on average than households without disability, and they grow more crops. They do not differ from households without disability in terms of the types of crops grown (Table A.18).

Naturally, there are some regional specificities when it comes to agricultural production. Only 86.5 percent of households farm in TA Mbera, whereas nearly every household (98.1 percent) does in TA Mkhumba. Households in Phalombe own or manage more plots on average than households in Balaka, but households in TA Nazombe farm on smaller land areas than households elsewhere. Roughly three times as many households grow pumpkin leaves in TAs Kalembo, Mbera and Mkhumba as compared to TAs Kaduya and Nazombe. Sorghum is grown mostly in Phalombe. Millet seems to be typical for TA Mkhumba and cassava for TA Mbera. Households in Phalombe are more likely to grow cash crops than households in Balaka, with tobacco and sunflower farming being almost exclusive to Phalombe (Table A.19).Table 6.5 shows that of the farming households, 82.0 percent applied some fertilizer to at least some of their land in the 2018/19 farming season (41.8 percent applied manure and 55.6 percent applied inorganic fertilizer), but only 9.1 percent applied chemical pesticides. 14.3 percent of farming households employed casual (*ganyu*) laborers to help with agricultural work.

Table 6.5: Agricultural technology

	N	Mean	Standard deviation
Used some fertilizer	2,985	0.820	(0.384)
Used manure	2,985	0.418	(0.455)
Used inorganic fertilizer	2,984	0.556	(0.453)
Used pesticides	2,983	0.091	(0.257)
Employed casual laborers	2,984	0.143	(0.322)

Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households were just as likely to apply use manure as male-headed ones, but less likely to use inorganic fertilizer and pesticides, and to employ casual laborers (Table A.20).

Elderly-headed households were less likely than others to use manure and pesticides, while youth-headed households were less likely than others to use inorganic fertilizer and to employ casual laborers (Table A.21).

Poorer households were less likely to use inorganic fertilizer and pesticides than their better-off counterparts. They were also less likely to hire casual laborers to help with agricultural work (Table A.22).

There were no significant differences in terms of use of agricultural inputs or casual labor between households with a disabled member and those without disabilities (Table A.23).

Farming households in Balaka were much more likely to use manure than those in Phalombe. Conversely, farming households in Phalombe were more likely to use inorganic fertilizer and pesticides than those in Balaka (Table A.24).

Table 6.6 provides an overview of agricultural extension messaging received by the households in our sample and the underlying population. 47.9 percent of households received at least one agricultural extension message during the 2018/19 agricultural season. The most common extension topics were composting (25.0 percent) and pest control (11.4 percent). Extension messages on all other individual topics were received by fewer than 10 percent of households.

Table 6.6: Agricultural extension

	N	Mean	Standard deviation
Received any extension messages	3,136	0.479	(0.500)
Received extension message(s) on:			
New seed varieties	3,136	0.086	(0.281)
Pest control	3,136	0.114	(0.318)
Fertilizer use	3,136	0.067	(0.251)
Pit planting	3,136	0.050	(0.217)
Irrigation	3,136	0.066	(0.249)
Composting	3,136	0.250	(0.433)
Marketing/crop sales	3,136	0.007	(0.086)
Growing/selling tobacco	3,136	0.009	(0.097)

	N	Mean	Standard deviation
Access to credit	3,136	0.010	(0.097)
Forestry	3,136	0.034	(0.182)
General animal care	3,136	0.020	(0.141)
Animal diseases/vaccination	3,136	0.018	(0.132)
Fishery production	3,136	0.001	(0.031)
Contract farming	3,136	0.002	(0.044)
Agroforestry	3,136	0.033	(0.179)

Note: Estimates from the BRACC Baseline Survey sample.

Extension messaging does not seem to have been targeted specifically at male- or female-headed households (Table A.25). The age of the household head or disability also do not seem to have played a role in targeting extension messaging (Table A.26 and Table A.28).

On the other hand, poor households received more extension messages than either ultra-poor or non-poor households (Table A.27), and households in Phalombe received more extension messaging than households in Balaka (Table A.29).

Table 6.7 presents the mean and median yields in the 2019 harvest for the most common food and cash crops: maize (1,187 kg/ha) and pigeon pea (204 kg/ha). The yields of a typical household were much lower, however, at 584 kg/ha for maize and 54 kg/ha for pigeon pea.[24]

Table 6.7: Agricultural yield

	N	Mean	Standard deviation	Median
Maize yield (kg/hectare)	2,600	1,186	(1,965)	584
Pigeon pea yield (kg/hectare)	1,445	206	(451)	54

Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households had lower yields for both major crops compared to male-headed ones (Table A.30). Youth-headed households had lower maize yields than households headed by prime-age adults or by the elderly (Table A.31). Ultra-poor households had lower yields for both crops than their better-off counterparts (Table A.32). Households with and without disabled members had similar maize and pigeon pea yields (Table A.33). In Phalombe, maize yields were significantly higher in TA Mkhumba and TA Nazombe than TA Kaduya as well as the two TAs in Balaka. Pigeon pea yields were also better in Phalombe (especially in TA Nazombe) than in Balaka (Table A.34).

6.1.5. Household exposure to climate-related shocks

Households in the study sample faced a wide variety of shocks in the 5 years leading up to the survey interview. The various types of shocks differ in their frequency, which is relatively easy to capture (see Annex F for details), as well as in their severity, which is much more difficult to elicit, but equally important. Death of an income earner, for example, is likely to have a much more detrimental effect on a household's wellbeing than, say, high prices of agricultural inputs. To factor

[24] The yields are calculated from self-reported amounts of harvest and self-reported size of cultivated land. Where plots were intercropped, farmers were asked to estimate what proportion of the land was taken up by each crop. Only the proportion taken up by the relevant crop is then used in yield calculations.

into our analysis the severity of different types of shocks, we construct a severity weight which takes into account how often a given type of shock is mentioned as the most disruptive conditional on the frequency of its occurrence. In other words, the less often respondents mention a shock type as the most severe even though they faced such shock, the less weight that shock is given. The weights are then rescaled so that 1 is equal to the severity of a drought.[25] For example, it will take 4 incidents of strong winds (with a weight of 0.25) to equal the severity of 1 incident of drought (with a weight of 1.00). The average household incidence of various types of shocks, along with their severity weights and severity adjusted incidence (simple household incidence times severity weight) is shown in Table 6.8.

Table 6.8: Household-level shock incidence and severity over 5 years

	Incidence	Severity weight	Severity-adjusted incidence
Covariate (community-level) shocks			
Drought	1.854	1.000	1.854
Irregular rains	1.869	0.501	0.936
Floods	1.521	1.036	1.576
Landslides	0.040	0.464	0.018
Earthquakes	0.170	0.080	0.014
Wind	1.213	0.245	0.298
Unusually high level of crop pests and diseases	2.024	0.391	0.791
Unusually high level of livestock diseases	0.626	0.037	0.023
Unusually low prices of agricultural output	0.476	0.043	0.020
Unusually high costs of agricultural inputs	1.354	0.208	0.282
Unusually high prices of food	1.185	0.229	0.272
Idiosyncratic (household-level) shocks			
End of regular assistance/aid/remittances from outside households	0.123	0.352	0.043
Reduction in the earning from household business	0.091	0.249	0.023
Household business failure	0.074	0.239	0.018
Reduction in the earnings from salaried household members	0.028	0.339	0.010
Loss of employment	0.018	0.791	0.014
Serious illness or accident of household members	0.268	0.905	0.243
Birth in the household	0.197	0.022	0.004
Death of income earner	0.149	1.789	0.267
Break-up of household	0.114	0.773	0.088
Theft	0.190	0.232	0.044
Conflict/violence	0.119	0.265	0.032

[25] Mathematically, the weights are constructed thus: $w_i=(N_i/S_i)/(N_d/S_d)$ where w is the w_i is the weight of shock i, N_i is the total number of times shock i was experienced by all households in the sample in the 12 months prior to the interview, and S_i is the number of households who reported shock i to be the most severe of the shocks they faced in the 12 months prior to the interview. Subscript d refers to droughts.

	Incidence	Severity weight	Severity-adjusted incidence
Damage to house	0.031	1.117	0.034
Social problems	0.054	0.058	0.003
Other shocks	0.002	1.610	0.003

Note: Estimates from the BRACC Baseline Survey sample.

Adjusted for severity, the most prominent type of shock is drought, especially when combined with irregular rains (as we do under the broad terms “drought” or “drought events” when presenting statistics in the remainder of this section)[26] and floods.

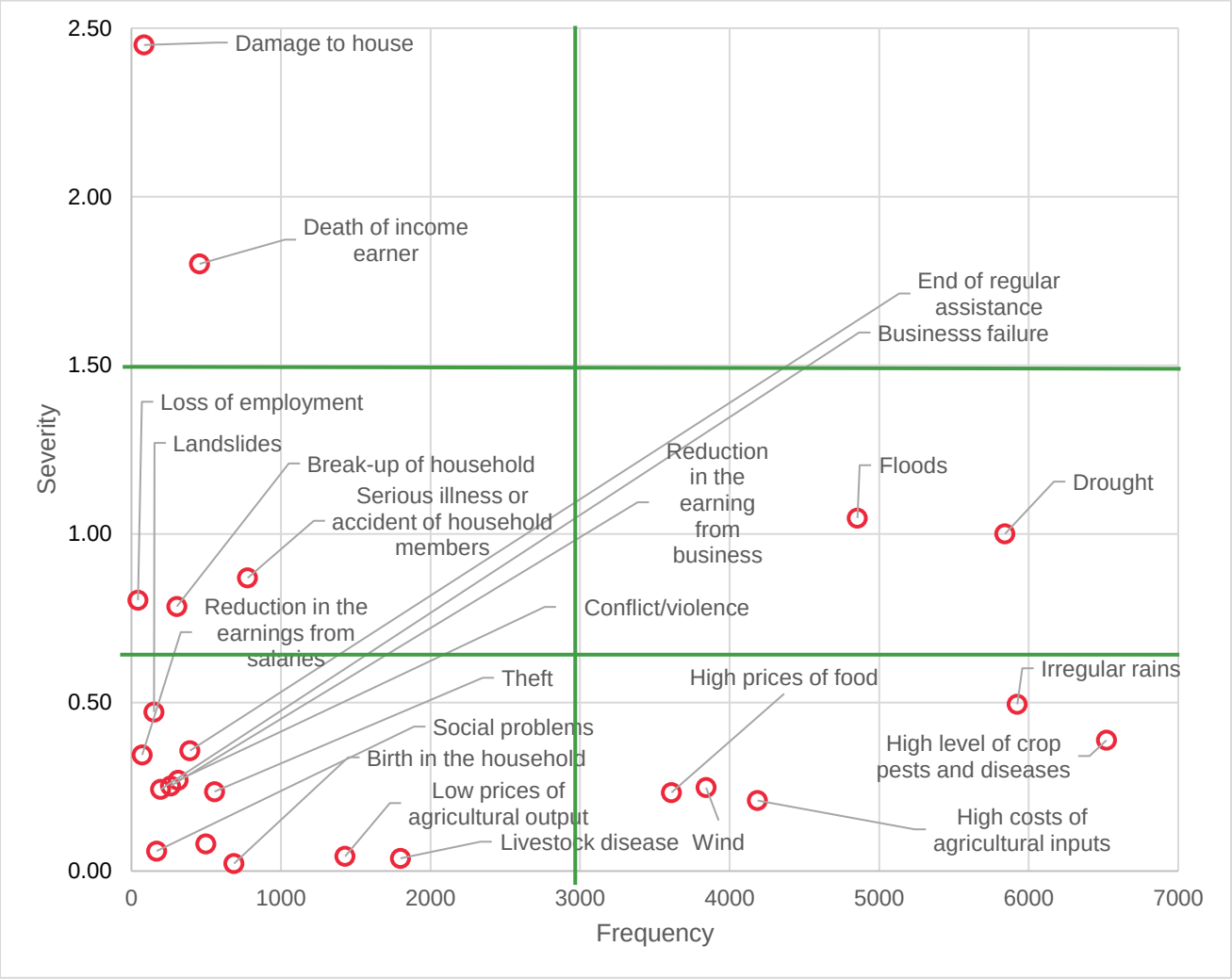
In Figure 6.7, we plot the types of shocks faced by the households in our sample according to their frequency (total incidence in the sample) on the horizontal axis and their severity on the vertical axis. Five distinct groups of shocks emerge from this:

1. High-severity/low-frequency shocks: damage to house; death of income earner
2. Medium-severity/high-frequency shocks: floods; drought
3. Medium-severity/low-frequency shocks: loss of employment; break-up of household; illness
4. Low-severity/high-frequency shocks: high prices of food; high costs of agricultural inputs; high levels of crop pests and disease; strong winds; irregular rains
5. Low-severity/low-frequency shocks: all other defined types of shocks

From a programmatic point of view, reducing the negative effects of the shocks in the first two groups will be most impactful in terms of improving household resilience.

[26] Following the methodology used by the NSO and the World Bank in the Integrated Household Survey, the term “drought” as used in this report encompasses a wide range of shocks related to insufficient or irregular precipitation – from short dry spells to prolonged droughts. This is done for two practical reasons: First, most such events translate to the same word in Chichewa (*ng’amba*), which makes outright semantic differentiation between concepts like dry spell, meteorological drought, hydrological drought, agricultural drought or socioeconomic drought difficult during data collection. Second, the alternative of distinguishing between types of such events in terms of the length of the period without precipitation or the amount of precipitation would suffer from substantial levels of inaccuracy due to the length of the recall period (in the case of time) or respondents’ inability to estimate true values (in the case of amount of rainfall). With this in mind, we choose accuracy over precision and opt for the widest possible definition of drought rather than inaccurately differentiating between more precise definitions.

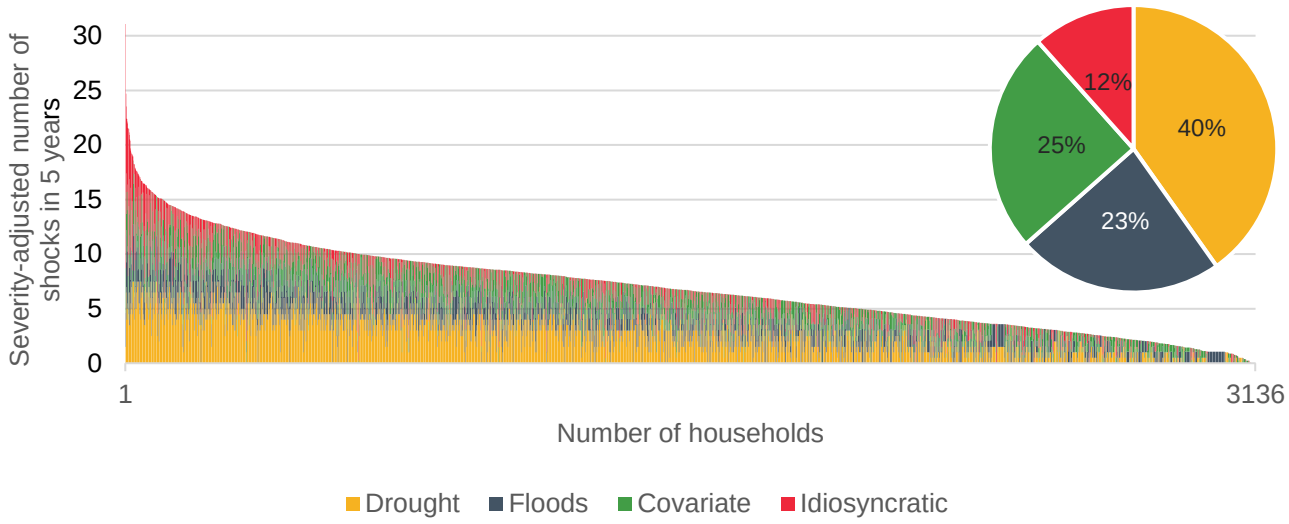
Figure 6.7: Shock typology



Source: Prepared by IFPRI-Malawi.

This overview however does not capture the large differences between individual households, which are illustrated in Figure 6.8, where we plot each household in our sample ranked from the ones who suffered the most shocks adjusted for severity on the left-hand side to those who suffered no shocks on the right-hand side. The figure also shows that adjusted for severity, drought events accounted for 40 percent of shocks, followed by floods with 23 percent. Another 25 percent of shocks were covariate (community-level) shocks, with the remaining 12 percent accounted for by idiosyncratic (household-specific) shocks.

Figure 6.8: Severity-adjusted shock distribution



Source: Prepared by IFPRI-Malawi.

Table 6.9 summarizes this information statistically. Adjusted for severity, households in our sample and in the underlying population faced, on average, 2.8 droughts in the five years preceding the baseline survey, 1.6 floods, 1.7 covariate (community-level) shocks of other type, and 0.9 idiosyncratic (household-specific) shocks. 15.4 percent of households faced some type of shock in the 30 days preceding their survey interview.

Table 6.9: Household shock experiences

	N	Mean	Standard deviation
Severity-adjusted number of shocks experienced in the past 5 years			
Drought	3,136	2.778	(2.036)
Floods	3,136	1.592	(1.370)
Other covariate (community-level) shocks	3,136	1.721	(1.181)
Other idiosyncratic (household-level) shocks	3,136	0.874	(1.731)
Experienced a shock in the past 30 days	3,136	0.154	(0.361)

Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households seem to experience more community-level shocks than male-headed ones (Table A.35), youth-headed households experience fewer droughts and floods than other households (Table A.36), poorer households experience more droughts and floods than their better-off counterparts (Table A.37), and households with disabled members experience more drought and household-level shocks than households without disability (Table A.38). However, these patterns may reflect respondents' tendency to under-report shocks that had little direct effect on their household rather than actual differences in exposure.

Geographically, households in TA Mbera suffered fewer community-level shocks than other households, and households in TA Mkhumba suffered fewer household-level shocks than others households (Table A.39).

6.1.6. Household participation in social safety net and humanitarian assistance programs

The PROSPER intervention operates in an environment with multiple social safety net and humanitarian assistance programs. Social safety net programs are typically geared to address long-term stresses and chronic poverty while humanitarian assistance programs tend to respond to acute shocks. Both types of programs – if successful in their goals – improve household resilience to shocks, and it is therefore important to understand their penetration of the sample. Although there are substantial conceptual differences between social safety net and humanitarian assistance programs, especially in terms of the time frame of their objectives, the mode of their delivery is often similar from the perspective of their beneficiaries: transfers of cash or food – either unconditional or in exchange for labor. This makes it hard for beneficiaries to distinguish between social safety nets and humanitarian programs. To avoid data inaccuracy, we therefore follow the example set by the NSO and the World Bank in the IHS4 survey, which distinguishes programs by the mode of their delivery rather than by the provenance and motivation of the assistance. The types of assistance considered include:

1. Free distribution of food
2. Direct cash transfers
3. Public works programs and food assistance for assets
4. School feeding programs
5. Free distribution of Likuni Phala to children and women (targeted nutrition programs)
6. Supplementary feeding of malnourished children at nutritional rehabilitation units
7. Scholarships and bursaries

Table 6.10 illustrates household participation in social safety net and humanitarian assistance programs, focusing especially on those most relevant to PROSPER interventions and resilience building in general. 16.2 percent of households reported having received a direct food transfer during the 12 months preceding the survey interview. Direct food transfers are unconditional transfers of food in kind, mostly as part of lean season emergency support.

6.9 percent of households received a direct cash transfer during the same period. Direct cash transfers are unconditional transfers, mostly as part of lean season emergency support or under the Social Cash Transfer Program (SCTP). 16.8 percent of households participated in a public works program in the 12 months prior to the interview. Public works programs are all interventions under which beneficiaries receive cash or in-kind support in exchange for labor, such as the Malawi Social Action Fund (MASAF) or WFP's Food Assistance for Assets (FFA) program.[27] Overall, 53.9 percent of households benefited from at least one social safety net or humanitarian assistance program in the 12 months prior to the survey interview.[28]

[27] Upon consultation with DFID and following the practice of the Government of Malawi and of intergovernmental organizations such as the World Bank and the International Labour Organisation, we define public works programs for the purposes of the summary tables in this report quite broadly as labor-intensive infrastructure development initiatives which provide cash or food-based payments in exchange for work, with the objective of decreasing chronic or shock-induced poverty, providing social protection, addressing social risk or reducing economic vulnerability. This definition covers programs that put more emphasis on employment than on the public goods they produce such as the Malawi Social Action Fund (MASAF) as well as those where employment is secondary to the production of public goods such as WFP's Food Assistance for Assets.

[28] These include less common or less relevant social safety nets such as scholarships or school feeding programs.

Table 6.10: Safety net program participation

	N	Mean	Standard deviation
Benefited from any social safety net	3,136	0.539	(0.499)
Received direct food transfer	3,136	0.162	(0.369)
Received direct cash transfer	3,136	0.069	(0.253)
Participated in a public works program	3,136	0.168	(0.374)

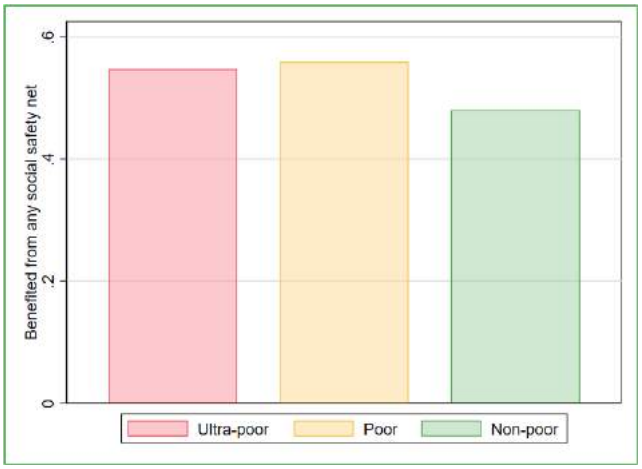
Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households were more likely to benefit from social safety net and humanitarian assistance programs than male-headed ones. The difference was especially prominent in the case of direct cash transfers (Table A.40).

Elderly-headed households were most likely to benefit from social safety nets programs (except for public works) than households headed by prime-age adults, who were in turn more likely to benefit from social safety nets than youth-headed households (Table A.41, Figure 6.9).

Figure 6.9: Participation in social safety net and humanitarian assistance programs by age of head

Figure 6.10: Participation in social safety net and humanitarian assistance programs by poverty



Source: Prepared by IFPRI-Malawi.

Ultra-poor and poor households were no more likely to benefit from a social safety net or humanitarian assistance program than non-poor households (Figure 6.10). This suggests that social safety net programs fail to consistently reach the poorest households (Table A.42).

Social safety net and humanitarian assistance programs seem generally better at reaching households with disabled members, who are more likely to benefit from them than households without disability. One notable exception to this trend are public works programs, which are unsuitable for people with physical disabilities (Table A.43).

There were significant geographical differences in access to social safety net and humanitarian assistance programs. While more than 60 percent of households benefited from at least one such program in TAs Kaduya and Mkhumba, fewer than 50 percent did in TAs Mbera and Nazombe, and fewer than 40 percent did in TA Kalembo. Similar differences exist in the number of programs from which households benefited (Table A.44).

There was further variation in terms of access to specific programs. Households in TA Mkhumba were less than half as likely to receive direct food transfers as households elsewhere, and almost no households participated in public works programs in TA Nazombe. Interestingly, the proportion of households who received direct cash transfers was similar in all TAs (Table A.44).

6.1.7. Economic wellbeing and resilience

Table 6.11 presents statistics for economic wellbeing of the households in our sample and the underlying population. Our main measure of economic wellbeing is total annual household consumption per capita. The measure takes into account the value of all goods and services consumed by the household (except for medical services, which are not directly relevant to climate resilience and which were not included in the baseline survey to keep interview times manageable), whether they were bought or own-produced. In rural settings, where subsistence farming is prevalent, the inclusion of own-produced goods makes household consumption a better measure of economic wellbeing than income, which is often minimal. Although it does not capture all aspects of human wellbeing, consumption forms a central component of any assessment of living standards. As such, per capita consumption is the main metric on which many measures of poverty are based, including the ones using in Malawi by the NSO and the World Bank.

Table 6.11: Economic wellbeing

	N	Mean	Standard deviation	Median
Total nominal annual consumption per capita ('000 MWK)	3,136	136.679	(97.977)	110,615
Poor household	3,136	0.287	(0.452)	
Ultra-poor household	3,136	0.502	(0.500)	
Adequate food consumption over the past month	3,136	0.232	(0.422)	
Adequate housing	3,136	0.402	(0.490)	
Adequate clothing	3,136	0.239	(0.427)	
Adequate health care	3,136	0.508	(0.500)	

Note: Estimates from the BRACC Baseline Survey sample. Poor households have total per capita consumption below the national poverty line of MWK179,377 but above the national food poverty line of MWK111,398. Ultra-poor households have total per capita consumption below the national food poverty line.

The average total annual household consumption per capita was MWK136,679. The mean is, however, skewed upwards by a few outliers. The median, i.e. the annual consumption per capita of the typical household, was MWK110,615 – just below the national food poverty line of MWK111,398 and far below the national poverty line of MWK179,377.[29] In fact, 50.2 percent of households are ultra-poor (their consumption falls below the national food poverty line) and further 28.7 percent of households are poor (they consume more than the national food poverty line but less than the national poverty line). Only 21.1 percent of households are not poor.

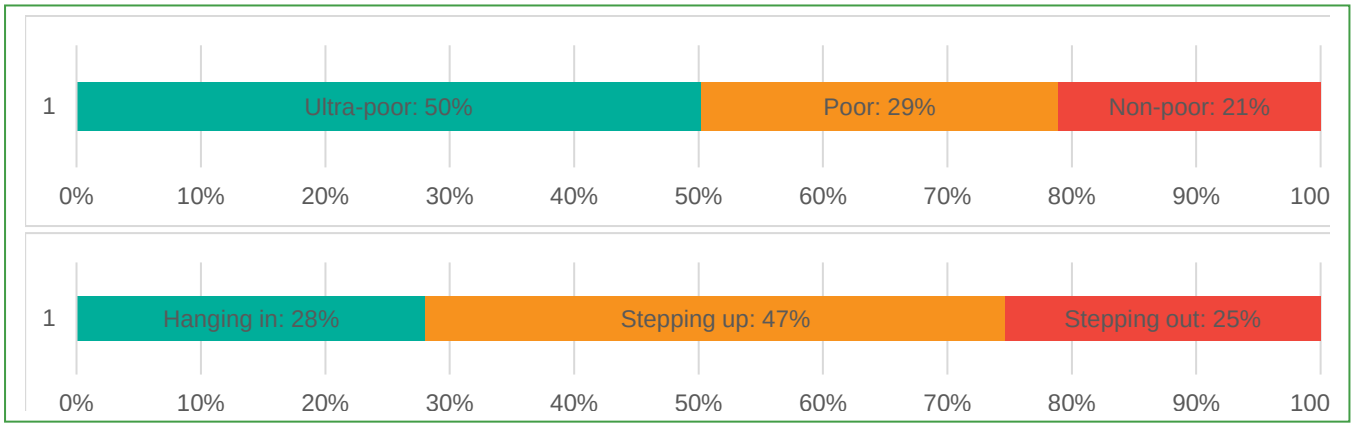
Considering their widespread use, clear definition and a well-established methodology for their calculation, the three poverty status categories are a used for analytical purposes throughout this report. They can also – to some extent – be compared to the three target groups used in PROSPER programming: the "Hanging in" (HI, to which 28 percent of the target households were assigned), "Stepping up" (SU, 47 percent of target households) and "Stepping out" (SO, 25 percent of target

[29] Our measure of total annual household consumption excludes medical expenses, which were omitted from the household questionnaire in order to reduce its length. The national poverty line and the national food poverty line were adjusted down to reflect this exclusion.

households). We do this in Figure 6.11, which shows the shares of households in the target GVHs in Balaka and Phalombe that fall into each of the poverty categories, and the shares of households assigned to each of the targeting categories.

Both sets of categories are based on aspects of wellbeing. However, they are clearly not identical. While the poverty categories are based on consumption, the targeting categories are based on asset wealth. This difference may be subtle, but it is important. If wealth is the stock of assets a household owns, consumption are the flows in and out of this stock. While many asset-poor households will also be consumption-poor, it is conceivable – and indeed it often happens – that asset-poor households have sufficient consumption or that asset-rich households have insufficient consumption.[30] Figure 6.11 thus does not imply that the HI group should be larger and the SU group smaller, it merely compares the share of households that fall into each of the poverty categories to the share of households that fall into each of the targeting groups. Breakdowns by poverty status as summarized in this report should be interpreted in this context. Unfortunately, it is not possible to report similar breakdowns by target group, as membership in the target groups was not yet established by the time of baseline data collection, and later matching of surveyed households to PROSPER households proved to be too uneven to allow for unbiased estimates.[31]

Figure 6.11: Poverty status and target groups



Source: Prepared by IFPRI-Malawi.

In terms of more subjective measures of economic wellbeing, only 23.2 percent of households reported having food consumption adequate to or exceeding their needs in the month prior to the survey interview. 40.2 percent had adequate (or better) housing, 23.9 percent had adequate (or better) clothing, and 50.8 percent had adequate (or better) healthcare (Table 6.11).

Female-headed households were more likely to be poor or ultra-poor than male-headed household. Fewer female-headed households reported adequate food consumption or adequate clothing than

[30] One can visualize the difference in terms of a bathtub – water is coming into the bathtub with a tap and a drain. The flow of water in and out of the tub represents consumption, the amount of water in the tub represents asset wealth. A bathtub full of water represents an asset-rich household, a nearly empty one represents an asset-poor household. A bathtub with a fully open tap and drain where water flows in and out quickly represents a household with high consumption, one with a closed tap and plugged drain represents a consumption-poor household. It is easy to see in this analogy that a household can be at the same time asset-rich and consumption-poor (the tub is full but the tap and drain are shut), or asset-poor and consumption-rich (lots of water coming in and out of the tub but none accumulating). The flow and the stock both measure the same thing – water or wellbeing – but each in a different way.

[31] The matching was kindly undertaken by CWW and was based on the names of household heads as reported by baseline survey respondents (for poverty categories) and as recorded by PROSPER (for the targeting groups). Only two thirds of the households interviewed in the intervention villages during the baseline survey could be matched to PROSPER's records in this way. This may be due to people using different versions of their names on different occasions. Unfortunately, the households whose head's names matched were not representative of populations assigned to the different target groups. 64 percent of them belonged to the SU group (compared to 47 percent in the assignment) and only 9 percent belonged to the SO group (compared to 25 percent in the assignment).

male-headed households. There was no significant difference between male- and female-headed households in terms of adequate housing and healthcare (Table A.45).

Households headed by adults in their prime age had on average lower per capita consumption than youth- or elderly-headed households and were more likely to be ultra-poor. This somewhat surprising observation is probably due to the fact that these households tend to be larger than their youth- and elderly-headed counterparts. Elderly-headed households were less likely than others to have adequate food consumption and healthcare (Table A.46).

Unsurprisingly, all observed indicators of economic wellbeing were lowest for ultra-poor households and highest for non-poor households (Table A.47).

Households with disabled members scored worse than households without disability on all subjective indicators of economics wellbeing, but had similar levels on consumption per capita (Table A.48).

We observed a similar discrepancy in the geographical breakdown of economic wellbeing indicators: households in TAs Kalembo and Nazombe had significantly lower consumption and were more likely to be ultra-poor than households elsewhere. This is also reflected in the proportion of households who had adequate food consumption, but not so clearly in the other wellbeing indicators (Table A.49).

Table 6.12 shows that over a third (34.3 percent) of households have a non-farm source of income, which annually amounted to MWK4,130 per capita on average. Average annual farm income was not much higher at MWK4,976 per capita.

Table 6.12: Sources of income

	N	Mean	Standard deviation
Household has a non-farm source of income	3,136	0.343	(0.475)
Number of non-agricultural enterprises	3,136	0.315	(0.540)
Annual per capita non-farm income ('000 MWK)	3,136	4.130	(25.377)
Annual per capita farm income ('000 MWK)	3,136	4.976	(38.851)

Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households were likelier to have a non-farm source of income than male-headed ones, although this does not translate into larger non-farm income on average (Table A.50).

Elderly-headed households were only half as likely to derive any income from non-farm sources than other households, but their farm income was relatively large, especially when compared to youth-headed households (Table A.51).

Ultra-poor households were less likely to have a non-farm source of income, and received less income from both farm and non-farm sources than poor households, who in turn received less income from either source than non-poor households (Table A.52).

We observe no differences in terms of income sources between households with and without disabled members (Table A.53).

When facing shocks, households often have to resort to coping strategies which negatively affect their wellbeing. Table 6.13 summarizes the prevalence of negative coping strategies. The average value of the Coping Strategy Index (CSI) – a composite measure of negative shock-coping

strategies[32] – is 13.1. Specifically, households had, on average, to rely on less preferred or less expensive food for 2.4 out of the past 7 days, borrow food or rely on help from a friend or a relative for 1.1 out of the past 7 days, rely on casual work (*ganyu*) for 3.1 out of the past 7 days, reduce the number of meals eaten in a day for 2.3 out of the past 7 days, and reduce the size of meals for 2.3 out of the past 7 days.

Table 6.13: Coping strategies

	N	Mean	Standard deviation
Coping Strategies Index (0-70)	3,136	13.114	(10.185)
Number of days in the past week household had to			
rely on less preferred or less expensive food	3,136	2.427	(2.318)
borrow food or rely on help from a friend or relative	3,136	1.121	(1.681)
rely on casual work	3,136	3.139	(2.978)
send children out to beg	2,802	0.257	(0.909)
reduce number of meals eaten in a day	3,136	2.263	(2.350)
reduce size of meals eaten in a day	3,136	2.279	(2.424)

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Female-headed households relied on negative coping strategies more than male headed ones (Figure 6.12), although they sold fewer assets (Table A.54). There were few differences between youth-headed households, households headed by prime-aged adults, and elderly-headed households in terms of the CSI (Table A.56).

Poorer households relied on negative coping strategies more than less poor households (Table A.57, Figure 6.13), as did households with a disabled member compared to those without disability (Table A.58). There were some significant but not obviously systematic differences between individual negative coping strategies employed by households in different geographic areas (Table A.59).

[32] The Coping Strategies Index (CSI) is a composite score in which the frequency with which a household engaged in a set of negative coping strategies over the past seven days is weighted by the severity of that strategy. The weighted scores for each coping strategy are then summed to generate an aggregate CSI between 0 and 70. Following Maxwell et al. (2003) and Knippenberg et al. (2018), the following weights are used: borrow food=2; piece work=1; consuming less preferred foods=1; reducing number of meals=1; reduce size of meals=1; children begging=4.

Figure 6.12: CSI by gender of household head

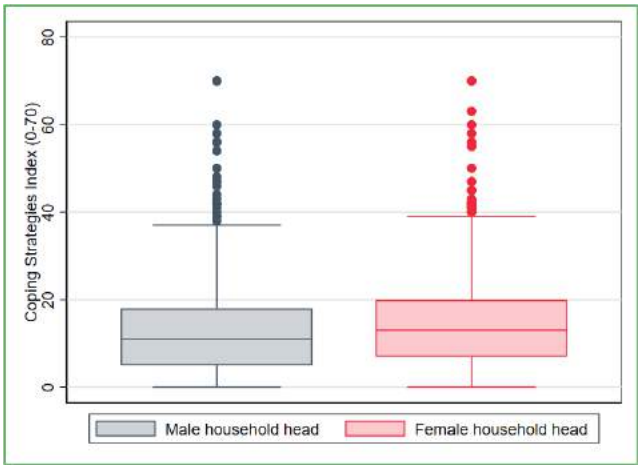
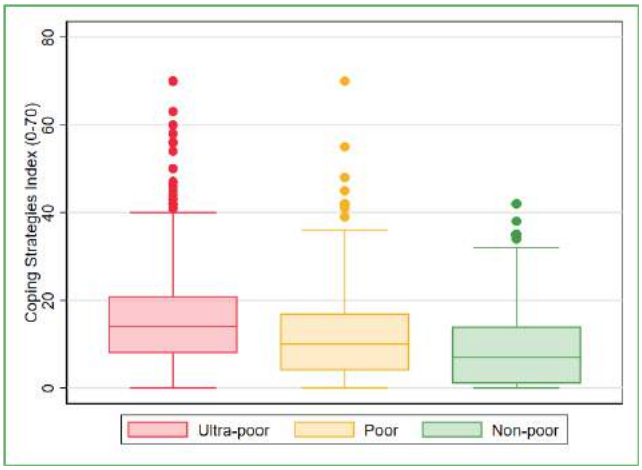


Figure 6.13: CSI by poverty



Source: Prepared by IFPRI-Malawi.

6.1.8. Food security and nutrition

Table 6.14 shows that most households reported facing food insecurity at some point during the 12 months prior to the baseline survey. Households also reported that over the 30 days prior to the survey interview, they did not have enough food (or money to buy food) on 7.1 days on average. Somebody in a household went to sleep at night hungry because of lack of food on average on 3.0 days out of the past 30, and somebody in a household went a whole day and night without eating anything because of lack of food on average 1.8 times over the past 30 days.

Table 6.14: Food security

	N	Mean	Standard deviation
Because of lack of money or other resources during the past 12 months, somebody in the household:			
was worried about not having enough food to eat	3,135	0.884	(0.329)
was unable to eat healthy and nutritious food	3,135	0.875	(0.340)
ate only few kinds of food	3,135	0.887	(0.333)
skipped a meal	3,134	0.812	(0.399)
ate less than what they thought they should	3,134	0.845	(0.368)
ran out of food	3,135	0.825	(0.387)
was hungry but did not eat	3,133	0.806	(0.413)
went without eating for a day because	3,135	0.660	(0.488)
Number of days in the past month a household member:			
did not have enough food or money to buy food	3,136	7.124	(7.347)
went to sleep at night hungry because there was not enough food	3,136	2.998	(3.848)
went a whole day and night without eating anything because there was not enough food	3,136	1.769	(3.001)

Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households had generally less food-secure than male-headed households (Table A.60), while elderly-headed households were less food secure than other households (Table A.61).

Unsurprisingly, ultra-poor households were less food-secure than poor households, who were in turn less food-secure than non-poor households (Table A.62).

Households with a disabled member were less food secure than households without disability (Table A.63).

We also observe some significant but not obviously systematic differences in food security between geographical areas (Table A.64).Table 6.15 presents summary statistics for nutritional outcome indicators – measures of nutritional quantity, quality and diversity. Based on a detailed recall of food consumed by the household in 7 days prior to the interview, these measures include total daily per capita calorie availability (i.e. how much energy was on average available for each household member), daily per capita availability of several important nutrients including protein, calcium, iron, zinc, vitamin A, folate, vitamin B12 and vitamin C. Where possible, we also report how many households reached the minimum recommended nutrient intake (RNI) for the given micronutrient.[33] Two indicators of dietary diversity are also reported – the HDDS and the FCS.[34]

Households consumed on average 2,394 kcal per capita per day. The daily per capita availability of all reported micronutrients was on average low, as was dietary diversity. The average HDDS is 7.3 while the average FCS is 39.0. Only a minority of households reached the minimum recommended nutrient intake where it is defined, while just over half of households reached the acceptable FCS of 35.

[33] We use recommended nutrient intake (RNI) values for adult males and convert per capita household consumption of given micronutrients to adult male equivalents using calorie consumption recommended for males aged 18-30 years.

[34] The Household Dietary Diversity Score (HDDS) is an indicator based on the validated measure by the same name, developed by the Food and Nutrition Technical Assistance (FANTA) Project (Swindale and Bilinsky 2006). HDDS counts the number of different food groups consumed by household members in the seven days prior to the survey interview date, using the full food consumption module. HDDS counts a total 12 food groups: cereals; roots, tubers and plantains; pulses/legumes and nuts; vegetables; fruits; meat, offal, and poultry; fish and seafood; eggs; milk and dairy products; oil and fats; sugars; and miscellaneous (including spices, condiments, and beverages). The Food Consumption Scores (FCS) is a composite score developed by the World Food Programme to address food quality and quantity at the household level. The indicator is based on 8-group dietary diversity and the frequency of food group consumption, whereby food groups are then weighted based on their relative nutritional value. The eight food groups and their weights are: staples (includes cereals, roots, tubers, and plantains; weight = 2); pulses (weight = 3); vegetables (weight = 1); fruits (weight = 1); meat and fish (weight = 4); milk products (weight = 4); sugar (weight = 0.5); and oils and fats (weight = 0.5).

Table 6.15: Nutritional outcomes

	N	Mean	Standard deviation	Median	Households reaching RNI
Calorie availability ('000 kcal per capita per day)	3,135	2.394	(6.200)	1.690	30.4%
Protein availability (g per capita per day)	3,135	66.351	(244.578)	43.334	
Calcium availability (g per capita per day)	3,135	215.553	(874.049)	129.160	1.9%
Iron availability (mg per capita per day)	3,135	20.473	(67.800)	14.832	46.5%
Zinc availability (mg per capita per day)	3,135	11.355	(32.595)	8.048	22.5%
Vitamin A availability (RAE[35] mg per capita per day)	3,135	313.358	(342.331)	215.113	37.9%
Folate availability (DFE[36] mg per capita per day)	3,135	272.262	(1,556.869)	165.109	12.6%
Vitamin B12 availability (µg per capita per day)	3,135	0.618	(2.492)	0.311	3.6%
Vitamin C availability (µg per capita per day)	3,135	46.797	(55.235)	30.381	36.1%
Household dietary diversity score (0-12)	3,135	7.307	(2.161)	7	
Food consumption score (0-168)	3,136	39.055	(13.956)	37	53.8%

Note: Estimates from the BRACC Baseline Survey sample.

Female-headed households have lower dietary diversity (as measured by HDDS and FCS) than male-headed households, but generally manage to maintain similar levels of micronutrient intake (Table A.65). Similarly, elderly-headed households have lower dietary diversity than other households but similar micronutrient intake (Table A.66).

There is, however, a very clear association between poverty and nutrition: poorer households have consistently lower calorie and micronutrient intake as well as dietary diversity than their better-off counterparts (Table A.67).

The presence of a disabled individual in a household does not seem to have much bearing on calorie and nutrient intake or on dietary diversity (Table A.68). There are some indications of geographic patterns in nutritional indicators, with TA Mkhumba and especially TA Kaduya having generally better outcomes than other areas (Table A.69).

6.2. Sample balance

Balance in baseline characteristics across the two treatment groups is central to the success of our evaluation strategy. Imbalance in observable attributes at baseline, especially those thought to be strongly correlated with the outcomes of interest, casts doubt on the ability of the evaluation to identify the causal effect of the intervention being investigated. However, there is no clear consensus in the evaluation literature about how best to determine whether there is sufficient balance, or overlap, in the distribution of a characteristic across the intervention and control groups. In particular, while a basic comparison of the mean of a variable in the intervention group with the

[35] Retinol Activity Equivalent (RAE) measures the amount of vitamin A that the body can actively absorb.

[36] Dietary Folate Equivalent (DFE) accounts for the differences in the absorption folate from different food sources.

mean of that same variable in the control group can be informative, it is hard to draw any sound inference about whether the observed difference is meaningful.

We therefore elect to present two sets of balance measures for each baseline characteristic: the p-value from a t-test of a null hypothesis that there is no difference in means between the two treatment groups and the normalized difference suggested by Imbens (2015).

Most quantitative evaluations use statistical tests for the equality of means across intervention and control groups; in effect, these test statistics capture how large the differences in means are relative to the typical variation in a variable observed in the data. We follow this practice by presenting, for each baseline characteristic, the probability (p-value) of observing a difference in means between the intervention and control group that is at least as large as the observed difference, given that the null hypothesis of no difference between the two groups is true. This p-value is computed based on a t-test of the null hypothesis that there is no difference between the two groups, from a regression of the characteristic on an indicator for whether each household resided in an intervention village at baseline with clustering standard errors at the village level. A successful randomization should lead to few statistically significant differences in observable characteristics between the two groups.

Because we test for differences across the two treatment groups for many different baseline characteristics, even if the randomization was successful, we will observe some statistically significant differences. For example, interpreting characteristics based on the convention that a p-value below 0.05 is significant, we should expect to observe a significant difference for one out of every twenty tests simply by chance.[37] However, observing a significant difference for substantially more than one out of twenty tests would indicate that the randomization was not successful, and suggest that any differences in outcomes at endline could be attributable to the baseline imbalance, rather than the PROSPER intervention.

Though assessing balance in observable characteristics by calculating p-values from a test of the null hypothesis of no difference between the intervention and control group is undeniably useful, it is also sensitive to the sample size. Because the p-value is based on the t-statistic—the ratio of the difference in means between the two groups to the standard error for that difference—p-values decrease quickly with the sample size. Therefore, particularly for large sample sizes, large t-statistics and the corresponding low p-values may be less informative about observable balance. We therefore also follow Imbens (2015) and present the normalized difference for each characteristic. The normalized difference is the difference in means between the two groups scaled by the average of the within group standard deviations. Specifically, for characteristic x, the normalized difference is given by:

$$\Delta_x = \frac{\mu_T - \mu_C}{\sqrt{(\sigma_T^2 + \sigma_C^2)/2}}, \tag{4}$$

where μ_T and μ_C are the sample means for households in the intervention and control group and σ_T^2 and σ_C^2 are the conditional within-group sample variances for characteristic x, respectively. Like the p-value from a t-test of no difference between the two treatment groups, the normalized difference is scale free (i.e. the difference is calculated relative to the “normal” variation in the variable as

[37] The number of significant differences we should expect to observe by chance is actually greater than one out of twenty. This is because, when testing multiple hypotheses simultaneously, the probability of observing at least one difference that is significant at the 5 percent level is actually greater than 5 percent. While methods have been developed to adjust for multiple hypothesis testing, we elect to present the unadjusted p-values and instead encourage readers to exert caution to avoid overinterpreting any significant differences.

measured by the variance). However, the normalized difference is also substantially less sensitive to the sample size: the t-statistic is approximately equal to the normalized difference multiplied by the square root of the total sample size. We therefore use the normalized differences as our preferred measures of balance and follow Imbens (2015) in interpreting normalized differences below 0.25 as being indicative of baseline balance.

The results of these balance tests are reported in Tables Table A.70–Table A.83 in Annex H.[38]

We reject the null hypothesis of no difference in means between intervention households and control households for 8 of the 110 characteristics tested.[39] This is a rejection rate of 7.3 percent, slightly higher what we should expect to find by chance; with a significance level of 0.05, we should expect to falsely reject the null hypothesis, given that it is true, 5 percent of the time. However, none of the 110 tested characteristics have normalized differences that are above the 0.25 threshold, and only 5 have normalized differences above 0.10. We therefore consider the sample well balanced.

6.3. Sub-sample balance

Statistical inference for the impact evaluation of PROSPER is based on village-level randomization into intervention and control groups. Inference for the first mechanism experiment is based on household-level randomization of subsidies for funeral insurance among households in intervention villages. We have shown that households in intervention villages are not statistically different from households in control villages. In this section, we assess the balance in baseline characteristics of households in the five sub-samples in the intervention group who received different levels of subsidy.

Reporting the tests results in the same way as for the overall sample balance would require 350 tables p-values, as there are 10 pair-wise combinations of the five subsidy levels and 35 characteristics. To avoid this, we instead run a simple regression for each of the characteristics as an outcome variable and dummy variables for each of the subsidy levels as regressors, and report the p-values of the related F-test to gauge whether the levels of subsidy jointly predict the value of each household characteristic. The p-values should be interpreted in the same way as those in Section 6.1: in models whose F-tests result in p-values lower than 0.05, there are statistically significant differences between the 5 sub-samples in terms of the tested characteristic. The results of the F-tests are reported in Table A.84. 10 in 110 tests (8.5 percent) shows statistically significant differences between households with different subsidy levels. This is slightly more than what we would expect due to chance. The mechanism experiment sub-sample is therefore not perfectly balanced, and we have to control for baseline levels of the imbalanced variables in any effect estimations.

6.4. Village size

The PROSPER Programme uses village household lists to target its household-level interventions. The lists were compiled in consultation with village chiefs and committees who provided the names of the household heads under their authority. In contrast, the baseline survey sampling frame was based on household lists compiled by the enumeration teams during a door-to-door household listing exercise (see Section 5.4.3 for details). Obtaining the lists from village chiefs is very time- and

[38] Since the tests presented in these tables are designed to verify sample balance rather than describe the characteristics of the underlying GVH population, they did not make use of sampling weights. The means presented here describe the sample rather than the population, and may therefore differ from the population means presented in Section 6.1.

[39] Since this basic design of the impact evaluation relies on a difference-in-differences estimation, there is no need to exclude the 5 characteristics which differ significantly at baseline from the evaluation.

cost-efficient. However, it gives the chiefs an opportunity to strategically misrepresent the number of households under their authority in the hopes of extracting more benefits from the program. Relying on physical and verifiable visit to every dwelling in a village, the household listing exercise largely eliminates the danger of inflated lists but comes at a considerable cost. In this section, we compare the results of the two listing methods to each other as well as to several alternative data sources.

Table 6.16 shows that village chiefs systematically reported higher numbers of households than what could be verified by door-to-door household listing. In the 148 villages where both methods of household listing were used, chiefs reported in total 5,203 (that is 26.4 percent) more households than we could identify in the door-to-door listing.

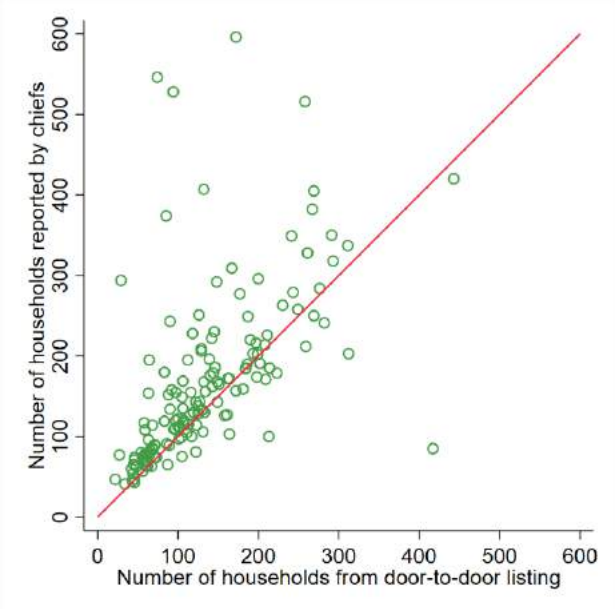
Table 6.16: Village size data from chiefs and household listing

Data source	Number of villages	Median number of households	Mean number of households	Total listed households
Chiefs	148	143	168.3	24,906
Listing	148	117.5	133.1	19,703

Note: Data from PROSPER administrative records and from the household listing exercise conducted as part of the BRACC Baseline Survey.

The over-reporting by chiefs is also evident when illustrated graphically. In Figure 6.14 each circle represents a village with its number of households obtained through door-to-door listing on the horizontal axis and number of households reported by its chief on the vertical axis. Circles that lie on the red 45° line of equality represent villages whose chiefs reported the same number of households as that obtained by door-to-door listing. Circles above the red line represent villages whose chiefs reported more households, and circles below the red line represent villages whose chiefs reported fewer household than the number obtained by door-to-door listing. The distance from the red line is commensurate to the discrepancy between the two measures. The figure shows that while some chiefs under-reported the size of their village, most (78.8 percent) over-reported it. The mean discrepancy between the two measures was 49.6 percent. The two measures are positively correlated with a correlation coefficient of 0.570.

Figure 6.14: Village size by data source



Source: Prepared by IFPRI-Malawi.

We further juxtapose these comparisons to comparisons between door-to-door listing and other data on village size from other sources. After conducting the door-to-door household listing, we also asked the chiefs (who knew that we conducted the listing exercise) about the number of households under their authority during the community interview (see Section 0). We also obtained data on village size from the 2018 Population and Housing Census conducted by the NSO, from the household register of the Balaka District Council (DC), and from the register of the Extension Planning Area (EPA) of the Ministry of Agricultural, Irrigation and Water Development which covers Phalombe district. In Table 6.17, the numbers reported by chiefs for use by the PROSPER Programme are compared to the number from door-to-door household listing under “Chiefs (before listing).”

Chiefs who knew that their information could be verified still over-reported at a similar rate as chiefs who did not have to fear verification but reduced the amount by which they over-reported from 49.6 percent to 28.5 percent on average. Numbers obtained this way thus align with number from door-to-door household listing much more closely (correlation coefficient of 0.784). Data in the Balaka DC register (which is also reported by village chiefs) shows a similar rate of over-reporting (72.5 percent) and size of discrepancy (44.6 percent) as the numbers obtained from chiefs before listing. Data from EPA registers, reported by Agricultural Extension Workers who may have similar incentives to over-report as village chiefs, is also over-reported at a similar rate (79.8 percent) but with much larger discrepancies (91.3 percent).

Finally, data from the NSO census are not very highly correlated with data from door-to-door listing either. However, its over-reporting rate is close to 50 percent, suggesting that the discrepancies stem from different assumptions about boundaries between villages. The NSO counted households within Enumeration Areas (EAs) rather than villages. Some villages contain several EAs, some EAs contain several villages, and village boundaries do not necessarily overlap with EA boundaries. It is likely that the process of assigning households to specific villages produced numbers of households which add up to correct sums ate at higher levels such as TAs, but not at the village level.

Overall, the numbers suggest that there is currently no reliable alternative to door-to-door listing if precise numbers of households are needed.

Table 6.17: Village size data sources compared to household listing

Data source	Number of villages	% over-reported	Mean discrepancy (%)	Correlation coefficient
Chiefs (before listing)	148	78.45	49.6	0.570
Chiefs (after listing)	224	78.6	28.5	0.784
DC register	69	72.5	44.6	0.635
EPA register	94	79.8	91.3	0.287
Census	222	51.8	50.3	0.627

Note: Own calculations by IFPRI-Malawi.

7. CONCLUSION

The baseline survey generated a great deal of relevant data for the quantitative evaluation of PROSPER, which we summarized in detail in Section 6. Here we highlight some of the most important findings and discuss the implications that the sample characteristics and the baseline balance in observables are likely to have for the subsequent midline and end surveys, the associated qualitative studies, as well as the overall impact evaluation.

7.1. Sample characteristics

The 3,136 households surveyed during the baseline household survey are economically disadvantaged; 78.9 percent fall below the national poverty line.

The households have 4.5 members on average, with a mean household dependency ratio of 1.2, indicating that there are on average 1.2 household non-working-age household members for every working-age member. The average household head is 41.4 years old. 36.9 percent of household heads are female, and 83.1 percent of household heads received at least some formal education. The highest educated household member (who was not necessarily the household head) received on average 7.8 years of formal schooling, or just short of completing primary education. 63.9 percent of household heads are in a monogamous marriage and further 5.5 percent were in a polygamous marriage. 42.3 percent of households had a disabled member.

The average value of durable assets owned by a household was MWK1.1 million, but this number is highly skewed by a few wealthy households. The typical (median) household held only MWK15,000 worth of durable assets. Similarly, the average household owned 0.13 Tropical Livestock Units of livestock (equivalent to 1 goat and 3 chickens), but the typical (median) household did not own any livestock at all. 22.9 percent of households had access to financial services in the form of an account with a formal or informal financial institution.

The vast majority (93.9 percent) of households farmed in the 2018/19 agricultural season, but most grew only one or two crops, usually maize (92.8 percent of farming households) and pigeon peas (52.1 percent of farming households). Crop yields were low, on average only 1,187 kg/ha for maize and 204 kg/ha for pigeon peas (median yields were even lower at 584 kg/ha for maize and 54 kg/ha for pigeon peas). 41.8 percent of farming households applied manure to their land and 55.6 percent applied inorganic fertilizer, but only 9.1 percent applied chemical pesticides. 14.3 percent of farming households employed casual laborers to help with agricultural work.

Almost half (47.9 percent) of all households received at least one agricultural extension message during the 2018/19 agricultural season. The most common extension topics were composting (25.0 percent) and pest control (11.4 percent). Extension messages on all other individual topics were received by fewer than 10 percent of households.

The households in our sample are highly exposed to climate-related shocks. Over the 5 years prior to the baseline survey, the average households faced shocks equivalent in severity to 7 drought events. On average, 2.8 of these were droughts, 1.6 were floods, 1.7 were other covariate (community-level) shocks, and 0.9 were idiosyncratic (household-specific) shocks. 15.4 percent of households experienced a shock in the 30 days prior to their baseline survey interview.

These numbers contrast with the relatively sparse coverage of households by social safety net programs. In the 12 months preceding the baseline survey, 16.2 percent of households received at least one direct food transfer, 6.9 percent received at least one direct cash transfer, and 16.8 percent participated in a public works program. 53.9 percent of households benefited from a social

safety net program of any type, including those less not directly associated with PROSPER interventions.

Less than a third (30.4 percent) of households can satisfy their nutritional needs in terms of energy intake, and even fewer in terms of intake of most micronutrients. 53.8 percent of households in the sample had a sufficient Food Consumption Score.

7.2. Baseline balance in observable characteristics

The quantitative sample appears to consist largely of the type of household we should expect to benefit from the type of resilience-building interventions like those in the PROSPER intervention: they are mostly poor and exposed to climate-related shocks without much capacity to withstand them. To assess how likely it is that the quantitative evaluation is able to accurately estimate the causal effect of the PROSPER Programme on outcomes we now turn to summarizing the observed balance in baseline characteristics between the intervention and control groups.

We assess balance using two different measures: the normalized differences between the intervention and control group distributions and p-values from tests of the null hypotheses of no difference in means between the intervention and control groups. We follow Imbens (2015) and interpret normalized differences below 0.25 in absolute value as being indicative of sufficient balance for the variable being tested. To be consistent with our plans for the impact evaluation after collecting endline data, we also treat p-values below 0.05 as evidence of imbalance in the characteristic being tested—though ultimately we prioritize the scale and sample size free normalized difference and we recognize that we should expect to observe roughly one out of every twenty tests have a p-value below 0.05 simply by chance.

The baseline report does not make any adjustments for multiple hypothesis testing—that is, adjusting for the fact that the likelihood of rejecting the null hypothesis at any level α when conducting multiple tests is typically increasing in the number of tests. Suggested corrections for this over rejection of the null due to multiple inference range from a Bonferroni correction that adjusts the required p-value for rejecting the null hypothesis by scaling the original significance level by the number of tests m ($\alpha_{Bonf} = \frac{\alpha}{m}$), reducing the number of tests by generating a summary index that combines the data from the individual indicators, or step-down methods for adjusting p-values to control for the familywise error rate (FWER)[40] using the actual data (Romano and Wolf 2005; Kling et al. 2007; Anderson 2008). While the endline impact analysis will use both the summary index and step-down p-value adjustment methods, we elect to make no formal adjustments for multiple hypothesis testing during the baseline analysis. Instead, we simply note that any adjustment for multiple hypothesis testing would reduce the number of tests with a p-value below our significance level of $\alpha = 0.05$.

Of the 112 characteristics tested, none have normalized differences that are above the 0.25 threshold, and only 5 have normalized differences above 0.10. We reject the null hypothesis of no difference in means between intervention households and control households for 5 of the 112 characteristics tested.[41] This is a rejection rate of 4.5 percent, almost exactly what we should expect to find by chance; with a significance level of 0.05, we should expect to falsely reject the null hypothesis, given that it is true, 5 percent of the time.

[40] The FWER is defined as the probability of rejecting at least one true null hypothesis.

[41] Since this basic design of the impact evaluation relies on a difference-in-differences estimation, there is no need to exclude the 5 characteristics which differ significantly at baseline from the evaluation.

Based on both the number of normalized differences above 0.25 and the number of tests of no difference in means between the intervention and control group with a p-value below 0.05, the village level randomization was highly successful at balancing observable characteristics across the intervention and control groups. This suggests that estimating the causal impact of the PROSPER Programme on beneficiary resilience and wellbeing will be possible through any of the empirical strategies discussed in Section 4.6.

7.3. Implications for PROSPER programming and learning

The main goal of the survey on which this report is based was to establish a baseline picture of the GVHs targeted by PROSPER in Balaka and Phalombe, against which the impact of the PROSPER interventions can be evaluated after completion of the midline and endline surveys. However, some clear patterns emerge from the data which can inform both PROSPER programming and the direction of studies to be undertaken by the KPISM. Here we present the most important ones.

Agricultural production in the PROSPER GVHs focuses overwhelmingly on maize and pigeon peas. Most farming households only grow one (53.4 percent) or two crops (32.7 percent), rendering them especially vulnerable to shocks like drought, pests and crop diseases, and contributing to nutrient depletion from the soil. There is therefore huge scope for promoting crop diversification. Upcoming qualitative studies should investigate the causes of low diversity of agricultural production in these GVHs so that the PROSPER Programme can address them.

The yields of the two main crops – maize and pigeon peas – are on average extremely low. While it is not the purpose of this report to disentangle the causes of low agricultural productivity, some patterns do emerge. Insufficient use of organic and inorganic fertilizer certainly plays a role: households that applied at least some fertilizer to their land realized on average 113 percent higher maize yields and 69 percent higher pigeon pea yields than households that did not apply any fertilizer. If the intensity of fertilizer use was taken into account, the relationship would likely be even stronger. Improving access to and ensuring better use of fertilizer and other agricultural inputs should therefore be a programmatic priority for PROSPER.

Additionally, female-headed households report lower yields than male-headed households, youth-headed households report lower yields than households headed by prime-age adults and the elderly, and ultra-poor households report lower yields than their better-off counterparts. These differences could be due to labor constraints, experience in farming, and capital constraints, respectively. Follow-up qualitative studies could investigate these hypotheses further.

Drought, floods, and crop pests and diseases are cumulatively the most impactful shocks due to their frequent occurrence. Death in family and substantial damage to the house are infrequent shocks but devastating to the impacted household when they do happen. Addressing household and community resilience to these shocks should be a programmatic priority for PROSPER. Conversely, low prices of agricultural produce are of much smaller concern for PROSPER households than anecdotal evidence may suggest.

Female-headed households are less food secure and have lower dietary diversity than male-headed households, but generally manage to maintain similar levels of micronutrient intake. This suggests that dietary decisions in female-headed households are better informed than in male headed-households. Follow-up work should establish whether this is indeed the case and if so, whether it is due to insufficient knowledge or low priority given to nutrition on the part of male household heads. In light of recent IFPRI research on the role of gender in various pathways to food security in Malawi (Ragasa et al. 2019), follow-up research should consider a more nuanced gendered typology of households – those with both male and female adults, those with only adult

males, and those with only adult females – in addition to the traditional typology of male and female headship.

Consumption poverty is a good predictor of many outcomes that are relevant to the BRACC Programme. Poorer households have less diverse sources of income, use fewer agricultural inputs and have lower yields than their better off counterparts. They are more vulnerable to shocks and are forced to employ negative coping strategies more often. They also are less food secure and have consistently lower calorie and micronutrient intake as well as dietary diversity. Upcoming qualitative studies should investigate the causal links between these mechanisms and both consumption and asset poverty to inform PROSPER programming.

7.4. Limitations of the study

Several limitations of the baseline survey should be noted. These include:

1. The descriptive statistics presented above are representative of the GVHs in Balaka and Phalombe from which sample for the baseline survey was drawn. They are not representative of Balaka and Phalombe districts as a whole, as will be evident from an examination of the maps of the intervention and control villages in Figures Figure 4.2 and Figure 4.3.

2. Similarly, since a comprehensive listing of watersheds was not available from the PROSPER consortium prior to implementation of the sampling for the baseline survey, it was not possible to stratify it by watershed. Since GPS co-ordinates of nearly all intervention and control households were collected, it will be possible to control for type or location of watersheds in subsequent analysis once a comprehensive mapping of watersheds in the PROSPER TAs in Balaka and Phalombe are available.

3. Since the PROSPER consortium had not concluded their wealth ranking exercise before implementation of the baseline survey, it was not possible to stratify the survey sample by the three target groups (hanging-in, stepping-up and stepping-out) identified in the NRS. It will be possible to collect information on target group assignment during the mid-line survey and use it retrospectively to reanalyze baseline data. However, the statistical power of any such analysis is likely to be suboptimal because the survey sample was not stratified by these categories.

4. The necessity of keeping the length of the baseline to under two-hours per household meant that detailed information on medical expenditures could not be collected. This constitutes a major point of difference between the design of the BRACC baseline survey and the Integrated Household Survey expenditures aggregates, which had to be taken account of using imputation methods.

It should be noted that since limitations 1. to 3. are embedded within the design of the baseline survey, it will be extremely difficult, if not impossible, to adjust the midline and end-line survey to take account of them. Similarly, while a more extensive module of medical expenditures or other items of interest could be added to subsequent surveys, it will not be possible to compare these to equivalent questions in the baseline survey.

5. The survey was conducted in Chichewa, Malawi's lingua franca. However, a few respondents, especially in the area of TA Kalembo in Balaka, were not sufficiently proficient in Chichewa to be interviewed directly, necessitating the use of interpreters. As a result, data from these interviews may be nosier than data form interviews conducted directly, introducing a potential language bias.

6. In each sampled household, enumerators were instructed to interview the household head along with their spouse (if married and available). It was also permissible to only interview the head's spouse if the head was unavailable. This was expected to be such a rare occurrence that we did not make systematic provisions for recording the identity of respondents in the questionnaire. Unfortunately, our survey teams report that male household heads were unavailable for interview much more often than anticipated. For midline and endline data collection, provisions for recording who was the primary respondent for each module, as well as which respondents were unavailable for interview, should be made in the household questionnaire. This will allow for potential gender biases to be statistically compensated in the ensuing data analysis.

It should be noted that while limitations 5. and 6. imply the potential presence of language and gender biases in the data, the biases should be similar in both treatment and control groups thanks to the randomized design of the study, and should therefore not affect the results of the overall impact evaluation.

7. Because the baseline is a cross-sectional survey, it is not possible to capture poverty dynamics, vulnerability and the impact of long-term stresses (e.g., climate change, weather uncertainty or price uncertainty) within the baseline. With careful design and tracking of households, it will be possible to capture poverty dynamics, the impact of shocks on vulnerability, and some of the impacts of stressors in the midline and endline surveys.

7.5. Next steps

The quantitative evaluation will continue with a midline survey in September 2021 and an endline survey in September 2023. The implementation and analysis of the midline and endline surveys will be the responsibility of the long-term KPISM appointed by DFID in March 2020. When the endline data has been collected and cleaned, the analysis to estimate the causal impacts of the PROSPER Programme on outcomes described in Section 6.1 should be conducted using the methods detailed in Section 4.6.

Between the quantitative survey rounds, i.e. in years 2020/21 and 2022/23, several qualitative studies are expected to be conducted, accompanied by as well as high-frequency monitoring of shocks and wellbeing in sentinel sites throughout the study area (see Sections 4.1 and 4.2 for details).The implementation and analysis of these qualitative studies will also be the responsibility of the KPISM, although some technical advice into the design of these studies can be provided by IFPRI.

The PROSPER consortium and KPISM will also need to follow-up on the mechanism experiment on coupons for funeral insurance with CUMO (see Section 4.3 above) and decide on which of the other possible mechanism experiments suggested by IFPRI to generate learning during the BRACC implementation period should be actioned.

So far, the cluster randomized evaluation design has held up well throughout the field work and the subsequent analysis of baseline data. We therefore anticipate that the evaluation will provide well-powered estimates of the causal impacts of the BRACC Programme for the primary and secondary research questions.

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ANNEXES

Annex A. IFPRI IRB approval

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
IFPRI

Date: August 12, 2019
IRB application approval number: DSG-19-0844
IRB #00007490
FWA #00005121

Project title: Baseline survey for an impact evaluation of the 'Building Resilience and Adapting to Climate Change' program in Malawi
Division: DSG
PI: Bob Baulch
Country of study: Malawi

Date of IRB approval: 8/12/2019

Dear Dr. Baulch,

The IRB has approved your protocol submission to conduct the research activity named, **Baseline survey for an impact evaluation of the 'Building Resilience and Adapting to Climate Change' program in Malawi.** This study meets the criteria for expedited review procedures as set forth in the code of federal regulations (45 CFR 46.110 Category 7) and presents no more than minimal risks to human subjects. Proper consent requirements have also been met. The IRB will file all documents related to this study under the project number listed above. The IRB notes that this study is being funded by DFID.

This approval is valid until the study's completion. There is no expiration date. According to our policies and procedures the IRB will require periodic progress reports to ensure that the study is being conducted according to study procedures. In addition, in accordance with IRB policies and procedures all studies are subject to possible random selection for quality assurance audits by the IRB. **The next progress report for this study is due on February 12, 2020.** Should any changes become necessary (i.e. procedures, methodologies) or be made or added to this study, you must immediately notify the IRB. No activity should commence without IRB modification approval. **When the study is completed you are required to submit a final report**. The form is available on our website

As a reminder the IRB requires that all staff directly working with human subjects in research complete IFPRI'S CITI ethics training course. This letter indicates that the project complies with the IFPRI IRB's ethical guidelines. In cases where local approval is needed, it is the responsibility of the researcher to obtain this approval and comply with local guidelines. Please keep the IRB advised of this.

We wish you all the best in your research efforts. If you have any questions please do not hesitate to contact Olivette Burton, IFPRI IRB Coordinator via phone or the email address

copied on this correspondence.

Sincerely,

Lieven Huybregts
IRB Chair

IFPRI-IRB@cgiar.org

Annex B. NCRSH IRB approval

NATIONAL COMMISSION FOR SCIENCE & TECHNOLOGY
Lingadzi House
Robert Mugabe Crescent
P/Bag B303
City Centre
Lilongwe
Tel: +265 1 771 550
+265 1 774 189
+265 1 774 869
Fax: +265 1772 431
Email:directorgeneral@ncst.mw
Website:http://www.ncst.mw

NATIONAL COMMITTEE ON RESEARCH IN THE SOCIAL SCIENCES AND HUMANITIES

Ref No: NCST/RTT/2/6 **29th July 2019**

Dr Bob Baulch,

Principal Investigator,

Malawi Strategy Support Program,

International Food Policy Research Institute,

P.O. Box 31666,

Lilongwe.

Email: b.baulch@cgiar.org

Dear Dr Baulch,

RESEARCH ETHICS AND REGULATORY APPROVAL AND PERMIT FOR PROTOCOL NO. P.06/19/397: BASELINE SURVEY FOR AN IMPACT EVALUATION OF THE BUILDING RESILIENCE AND ADAPTING TO CLIMATE CHANGE PROGRAMME IN MALAWI

Having satisfied all the relevant ethical and regulatory requirements, I am pleased to inform you that the above referred research protocol has officially been approved. You are now permitted to proceed with its implementation. Should there be any amendments to the approved protocol in the course of implementing it, you shall be required to seek approval of such amendments before implementation of the same.

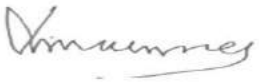
This approval is valid for one year from the date of issuance of this approval. If the study goes beyond one year, an annual approval for continuation shall be required to be sought from the National Committee on Research in the Social Sciences and Humanities (NCRSH) in a format that is available

Committee Address:
Secretariat, National Committee on Research in the Social Sciences and Humanities, National Commission for Science and Technology, Lingadzi House, City Centre, P/Bag B303, Capital City, Lilongwe3, Malawi. Telephone Nos: +265 771 550/774 869; E-mail address: ncrsh@ncst.mw

at the Secretariat. Once the study is finalised, you are required to furnish the Committee and the Commission with a final report of the study. The committee reserves the right to carry out compliance inspection of this approved protocol at any time as may be deemed by it. As such, you are expected to properly maintain all study documents including consent forms.

Wishing you a successful implementation of your study.

Yours Sincerely,



Yalonda .I. Mwanza
NCRSH ADMINISTRATOR
HEALTH, SOCIAL SCIENCES AND HUMANITIES DIVISION

For: CHAIRMAN OF NCRSH

Committee Address:
Secretariat, National Committee on Research in the Social Sciences and Humanities, National Commission for Science and Technology, Lingadzi House, City Centre, P/Bag B303, Capital City, Lilongwe3, Malawi. Telephone Nos: +265 771 550/774 869; E-mail address: ncrsh@ncst.mw

Annex C. Informed consent forms

Informed consent form

Title: Baseline survey for impact evaluation of the BRACC programme

Interviewer _____

Date _____

Questionnaire code _____

Supervisor checked? ___ **Name** _____

Introduction

My name is ..... and I am working on behalf of the International Food Policy Research Institute (IFPRI). IFPRI is interested in knowing more about agricultural production, food consumption, and ways in which people overcome the shocks they face. Please feel free to ask any questions at any time. The results from this study will be used to inform future initiatives aimed at improving agricultural production and food security.

If you agree to participate in this study, we want to learn from your knowledge. We will be spending about 2 hours asking you questions. There is no right or wrong answer to our questions. If you feel uncomfortable at any moment, please let me know.

There is no direct benefit to you for participating in this part of research; however, the information gained in this study will benefit your community indirectly. We will share what we learn from you to inform initiatives for improving agricultural production and food security. You will not incur any costs by participating in the study other than about two hours spent discussing things with us. There are no risks associated with this study.

Your participation in this study is completely voluntary and you may refuse to participate or leave the study at any time. If you decide to not participate in the study, it will not result in any penalty or loss of benefits to which you are otherwise entitled. Your name will only be recorded to document that you have agreed to participate in this research. It will not be put in any of the project report documents to be prepared from this research. Only the research team will have access to the data provided and records will be kept safely. We would like to have an involvement of your child in the data collection. Please be informed that you may decide to pull out at any time or pull your children out at any time.

Do you agree to continue with the survey? ☐ YES ☐ NO

You are encouraged to ask me questions at any time during or after this study. You can also **call Edwin Kenamu on 0998 965 413 or Jonathan Thorneycroft on 0992 412 157.** Thank you for all your help and cooperation with this study. The information captured in this questionnaire is strictly confidential and will be used for research purposes only.

Contacts for additional Information

This study has been reviewed and approved by the National Committee on Research in the Social Sciences and Humanities in Malawi and the International Food Policy Research Institute Institutional Review Board (IRB). These committees have ensured that during this study, participants are protected from harm. If you have any further questions about the study or feel that you have been harmed in any way, please contact:

Edwin Kenamu
International Food Policy Research Institute
P.O.Box 31666, Lilongwe 3
Cell: 0998 965 413
Email: e.kenamu@cgiar.org

Your rights as a Participant: If you have any questions about your rights as a research participant you can contact the IFPRI IRB Office through at ifpri-irb@cgiar.org.

Consent form approved by IFPRI IRB on [Date].

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research titled Baseline survey for impact evaluation of the BRACC programme has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. Taking part in this survey is my choice. I know that I may decide to pull out at any time or pull my children out at any time. I agree to participate as a volunteer.

_____ _____

Date Name of respondent

_____

Signature (or X if respondent cannot sign name)

_____

Signature of witness (if respondent is non-literate)

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual. I have watched them indicate consent to participate in the study with a mark/signature.

_____

Date

_____

Name and Signature of Person Who Obtained Consent

Informed consent form

Title: Baseline survey for impact evaluation of the BRACC programme.

Interviewer	
Date	
Questionnaire code	
Supervisor checked? ___	**Name**

Dzina langa ndi ..... Ndikugwira ntchito ndi International Food Policy Research Institute (IFPRI). IFPRI ikufuna kudziwa zambiri za ulimi, kadyedwe ka pakhomo, ndi njira zimene makomo amagwitsa ntchito akakumana ndi mavuto obwera mwadzidzidzi/ngozi. Khalani omasuka kufunsa mafunso nthawi ina iliyonse. Zotsatira za kafukufukuyu zizathandiza kukonza ndondomeko zabwino pofuna kutukula ulimi ndi kupezeka kwa chakudya chokwanira komanso chopatsa thanzi.

Tifuna tiphunzire kuchokera kwa inu mukavomera kutengapo mbali pa kafukufuku ameneyu. Mu kafukufukuyu palibe yankho lolondora kapena lolakwika. Kucheza kwathu kutitengera pafupifupi maola awiri. Chonde khalani omasuka ngati mukufuna kundiuza china chili chonse.

Simulandira cholowa china chilichonse chifukwa chotengapo mbali mu kafukufukuyu. Koma zotsatira za kafukufuku ameneyu zizathandiza inuyo ndi anthu amdera lino. Zimene tiphunzire kuchokera kwa inu, zitithandiza kukonza ndondomeko zofuna kutukula ulimi ndi kukhala ndi chakudya chokwanira. Simuononga china chilichonse potengapo mbali mu kafukufuku ameneyu kupatula nthawi imene tikhale tikukambirana.

Kutengapo mbali kwa inu mukafukufukuyu ndi kosakakamiza. Mutha kukana kapena kusiya kutenga nawo mbali mu kafukufukuyu nthawi ina iliyonse. Ngati mutasankha kusatengapo mbali mu kafukufukuyu simuzamanidwa china chilichonse chomwe chikuyenera kubwera kwa inu. Dzina lanu lizalembedwa ngati mwavomeleza kutengapo gawo mukafukufuku ameneyu. Ngakhale ndi choncho dzina lanu silizalembedwa muzotsatira za kafukufukuyu. Zimene mundiuze zizakhala za chinsinsi. Tifunanso kucheza ndi mwana wanu ndi kumuyeza pa sikelo. Chonde dziwani kuti mutha kusiya kapena kumusiyitsa mwana wanu nthawi ina iliyonse.

Kodi mukuvomereza kutenga mbali mu kafukufuku ameneyu?

☐ EYA ☐ AYI

Mukulimbikitsidwa kufunsa mafunso nthawi ina iliyonse mkati mwakafukufukuyu kapena kafukufukuyu atatha. Mutha kuimbira **Edwin Kenamu pa 0998 965 413** kapena **Jonathan Thorneycroft pa 0992 412 157.** Zikomo chifukwa cha kudzipeleka kwanu mu kafukufuku ameneyu. Zomwe tikambiranezi ndi za chinsinsi ndipo zikagwiritsidwa ntchito pa nkhani ya kafukufuku yekha basi.

Kafukufuku ameneyu waunikidwa ndi kuvomelezedwa ndi bungwe la boma lowona zakafukufuku wokhudza anthu mmuno mma Malawi la National Committee on Research in the Social Sciences and Humanities in Malawi pamodzi ndi International Food Policy Research Institute Institutional Review Board (IRB). Makomiti amenewa atsimikiza kuti mkati mwa kafukufuku ameneyu anthu otengapo mbali akhala otetezedwa mu kafukufukuyu. Ngati muli ndi mafunso owonjezera za kafukufuku ameneyu kapena ngati mwaona kuti mwalakwilidwa mu njira ina iliyonse mutha kuimba foni kapena kulemba kalata kwa:

Edwin Kenamu
International Food Policy Research Institute
P.O. Box 31666, Lilongwe 3
Cell: 0998 965 413
Email: e.kenamu@cgiar.org

Ufulu wanu potenga mbali: Ngati muli ndi mafunso okhudza ufulu wanu monga otenga mbali mukafukufuku ameneyu lembani kalata ku IFPRI IRB Office kudzera pa ifpri-irb@cgiar.org.

MGWIRIZANO WA KUZIPELEKA KWANU

Ndawerenga ndi kuuzidwa za ubwino ndi ndondomeko ya kafukufukuyu. Ndapatsidwa mwayi owonetsetsa kuti mafunso anga pakafukufuku amene dzina lake ndi Baseline survey for impact evaluation of the BRACC programme ayankhidwa. Ndipo kutenga mbali pakafukufukuyu ndi chisankho changa. Ndikudziwa kuti nditha kusiya kapena kuwasiyitsa ana anga nthawi ina iliyonse. Ndavomeleza kuti nditenge mbali mwakufuna kwanga.

_____ _____

Tsiku Dzina la oyankha

_____

Saini (kapena X oyankha sangasaine)

_____

Saini ya Mboni (ngati oyankha ali osalemba kapena kuwerenga)

Ndikutsimikiza kuti ndondomeko, cholinga, ubwino omwe ungatsatire, ndi kuti palibe chiopsezo china chilichonse chimene chingadze potenga nawo mbali pakafukufukuyu, zafotokozedwa kwa munthuyu. Ndinalipo pamene zimachitika izi.

_____

Tsiku

_____

Dzina ndi Saini la Research Assistant

Annex D. Community listing exercise questionnaire

District: ____________ TA: ____________ Village name: ____________

Enumerator name: ____________ Date: ____________ Supervisor name: ____________

#	HH number	Name of HH head	Gender of HH head	Total HH size	Phone #1	Phone #2	Selected HH

Annex E. Community survey questionnaire

This Annex lists the questions and possible answers from the community questionnaire used in the baseline survey. It does not contain the survey logic (including skip and repeat patterns) programmed into the electronic version of the data collection tool. It can be used to better understand the baseline data, but not to replicate the survey.

101. District	*select_one distict*
Balaka	*1*
Phalombe	*2*

102. TA	*select_one TA*
Kalembo	*1*
Mbera	*2*
Kaduya	*3*
Mkhumba	*4*
Nazombe	*5*

103. GVH	*select_one GVH*

104. Village Name	*select_one village*

Note: Group ID	*Automatically calculated*

105. Choose your name form the list	*select_one supervisor*

201. How many individuals are in this group?	*integer*

Roster of informants. Note: ask Q202-210 for each group member

202. First name and last name of participant	*text*

203. What is {name}'s sex	*select_one sex*
Male	*1*

Female	*2*

204. How old is {name}? Kodi {name} ali ndi **zaka zingati?**	*integer*

205. What position does {name} currently have in this community? **{name} ali ndi udindo wanji mudera lino?**	*select_multiple position*
Headman	*1*
Spouse of headman	*2*
Counselor to headman	*3*
School headmaster	*4*
School teacher	*5*
Assistant Agricultural Extension Development Officer	*6*
Health worker	*7*
Businessperson	*8*
Religious leader	*9*
Police	*10*
Other (specify)	

207: For how many years has _____ held the position of a headman? _____ **wakhala paudindo waunyakwawa/mfumu kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of a spouse of a headman? _____ **wakhala paudindo mkazi/mamuna wa anyakwawa/mfumu kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of a counselor to a headman? _____ **wakhala nduna ya anyakwawa/mfumu kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of a school headmaster? _____ **akhala headmaster kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of a school teacher? _____ **akhala mphunzitsi kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of an AED officer? _____ **akhala mlangizi wa zaulimi kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of a health worker? _____ **akhala mlangizi wa zaumoyo kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of a business person? _____ **akhala akupanga bizinezi kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of a religious leader? _____ **akhala mtsogoleri wa chipembedzo kwa nthawi yaitali bwanji?**	*integer*

208: For how many years has _____ held the position of a policeman/policewoman? **kodi a** _____ **akhala apolisi kwa nthawi yaitali bwanji?**	*integer*

209. For how many years has {name} lived in this community? **{Name} wakhala mudera lino kwa zaka zingati?**	*integer*

210. What is the highest educational qualification has {name} attained? **Kodi setifiketi yaikulu imene {name} nayo ndi iti?**	*select_one qualification*
None	*1*
PSLC	*2*
JCE	*3*
MSCE	*4*
Non-university diploma	*5*
University diploma, degree	*6*
Post-graduate degree	*7*
College certificate	*8*

211. What language do you speak at home? **Mumayankhula chiyankhulo chanji kunyumba kwanu?**	*select_one language*
Chewa	*1*
Nyanja	*2*
Yao	*3*
Tumbuka	*4*
Lomwe	*5*
Nkhonde	*6*
Ngoni	*7*
Sena	*8*
Nyakyusa	*9*
Tonga	*10*
Lambya	*11*
Sukwa	*12*

Senga	*13*
English	*14*
Other (specify)	

301. Since 2014, have there been more people who moved into this community or more people who moved away? **Kodi kuchokera 2014, pali anthu ambiri amene abwera kapena achoka mudera lino?**	*select_one migration*
More moved in	*1*
More moved out	*2*
About the same of both	*3*
Neither arrivals nor departures	*4*

302: What is the population of this community? **Mudera lino muli anthu angati?**	*integer*

303. How many households are found in this community? **Mudera lino muli makomo angati?**	*integer*

304. How many child-headed households are found in this community? **Mdera lino muli mabanja oyendetsedwa ndi ana angati?**	*integer*

305. Do individuals in this community trace their descent through their mother, their father or both kinds of descent are traced? **Kodi anthu ammudzi/mdera lino amalondoloza chibale chawo kudzera kwa amayi kapena kwa abambo kapenanso konseko?**	*select_one inheritance*
Mother	*1*
Father	*2*
Both	*3*

306. What are the common types of marriages witnessed in this community? **Maukwati akuno amakhala otani? Ndi mabanja angati amene amamangidwa kugwiritsa ntchito njira ina iliyonse ya ukwati?**	*select_one marital*
Matrilineal and neolocal	*1*
Matrilineal and matrilocal (chikamwini)	*2*
Matrilineal and patrilocal (chitengwa)	*3*
Patrilineal and neolocal	*4*
Patrilineal and patrilocal (chitengwa)	*5*
Patrilineal and matrilocal	*6*

307. How many polygamous households are found in this community? **Kodi mudera lino muli mabanja amitala angati?**	*integer*

308. Is the land of community.. **Malo amdera lino ndi ...**	*select_one slope*
Flat **a flati/thyathyathya**	*1*
Slightly sloping **Okwera pang'ono**	*2*
Moderately sloping **Okwererapo**	*3*
Steeply sloping **Okwera kwambiri**	*4*
Both flat and hilly **a fulati ndi mapiri**	*5*

309. What share of land in your community is bush? That is, land that was farmed years ago but is now not used for agriculture except for pasture? **Ndi gawo lalikulu bwanji la dera lino limene ndi thengo? Awa ndi malo amene ankalimidwa m'mbuyomu, ndipo sagwira ntchito za ulimi kupatula kudyetsera ziweto?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

Note: Exclude forest

310. What share of agricultural land in your community is in estates? That is, it has been purchased or is on a long-term lease? **Kodi ndi gawo lalikulu bwanji la malo amene amalidwa mdera muno lomwe ndi ma estate? Awa ndi malo amene anagulidwa kapena anabwerekedwa kuchokera ku boma kwa nthawi yaitali kwambiri.**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

311. What share of land in your community is in forest, and not used for agriculture? **Ndi gawo lalikulu bwanji la dera lino limene ndi nkhalango? Awa ndi malo amene samalimidwapo.**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

401. What is the type of main access road surface in this community? **Kodi mseu waukulu mudera lino ndiotani?**	*select_one road*

Tar/Asphalt	*1*
Graded graveled	*2*
Dirt road (maintained)	*3*
Dirt track	*4*

402. Do vehicles pass on the _____ throughout the year? **Kodi magalimoto amadutsa pa nsewu umenewu chaka chonse?**	*select_one yes_no*
Yes	*1*
No	*0*

403. During the past 12 months, how many months was the main road passable by a mini-bus? **Mumiyezi khumi ndi iwiri (12) yapitayi, kodi ndi miyezi ingati imene mseu umenewu unali odutsika ndi ma mini-bus ?**	*integer*

404. Do public buses, minibuses or regular matola stop in this community? **Kodi ma bus, ma minibus kapena matola amaima mdera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

405. How far away is the nearest asphalt/tar road? **Pali mtunda wautali bwanji kukafika ku nsewu wa tara umene wakuyandikirani?**	*decimal*
405. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

406. How far away is the nearest bus stop? **Kodi depoti ya bus yomwe yakuyandikirani kwambiri ili mtunda ochuluka bwanji kuchokera mdera lino?**	*decimal*
406. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

407. Typically, how frequently can you expect a bus or min-bus to stop in this community or at the nearest bus stage? **Kodi ma bus kapena ma minibus amaima pafupipafupi bwanji mdera lino kapena depoti ya bus yomwe yakuyandikilani kwambiri?**	*integer*
407. Units	*select_one bus_time*
every minute	*1*
every hour	*2*
every day every week	*3* *4*

408. How far is it to the nearest district BOMA? **Pali mtunda wautali bwanji kukafika ku boma?**	*decimal*
408. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

409. How much does the total fare cost to go by regular matola from here or the nearest matola stage to the nearest district boma, even if one has to change matola en route? **Mumalipira ndalama zingati kuchokera kuno kapena pa depoti ya bus imene muli nayo pafupi kukafika ku boma?**	*integer*

Note: in MWK, total fare

410. What is the nearest urban centre? **Kodi mzinda waukulu umene mwayandikana nawo ndi uti?**	*select_one centre*
Zomba	*3*
Blantyre	*4*

411. How far is it to ……. (answer to 410)? **Pali mtunda wautali bwanji kuchoka mudera lino kukafika ku …..?**	*decimal*
411. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

412. What is the cost of the total fare to go by regular matola from here or the nearest matola stage to the nearest major urban centre, even if one has to change matola en route? **Mumalipira ndalama zingati kupita kokha kufika kutawuni yaikulu imene yakuyandikirani?**	*decimal*

413. Is there a daily market in this community? **Kodi muli nsika wa tsiku ndi tsiku mdera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

414. What is the distance to the nearest daily market? **Pali mtunda wautali bwanji kukafika pa nsika wa tsiku ndi tsiku umene wakuyandikirani?**	*decimal*
414. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

415. Is there a large weekly market in this community? **Kodi muli ndi nsika waukulu wa pa sabata mdera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

416. What is the distance to the nearest weekly market? **Pali mtunda wautali bwanji kukafika pa nsika wa pasabata umene wakuyandikirani?**	*decimal*
416. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

417. Is there a permanent ADMARC market in this community? **Kodi muli nsika wa ADMARC okhazikika mdera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

418. What is the distance to the nearest permanent ADMARC market? **Pali mtunda wautali bwanji kukafika pa nsika wa ADMARC okhazikika umene wakuyandikirani?**	*decimal*
418. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

419. Is there a post office in this community? **Kodi muli ndi Post Office mdera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

420. What is the distance to the nearest post office? **Pali mtunda wautali bwanji kukafika ku post office imene yakuyandikirani?**	*decimal*
420. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

421. How many churches (congregations) are there in this community? **Kodi mu dera lino muli ndi matchalitchi angati?**	*integer*

422. How many mosques are there in this community? **Kodi mu dera lino muli ndi mizikiti ingati?**	*integer*

423. Is there a Community Based Child Care Center/ Nursery School in this community? **Kodi mu dera lino muli ndi malo amene alezi amalerera ana kapena sukulu ya mkaka?**	*select_one yes_no*
Yes	*1*
No	*0*

424. Is there a government primary school in this community? **Kodi kuli sukulu ya pulayimale ya boma mu dera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

425. What is the distance to the nearest government primary school serving this community? **Pali mtunda wautali bwanji kukafika ku sukulu ya pulayimale ya boma imene ana amdera lino amapita?**	*decimal*
426. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

427. Are there any school feeding programs at the government primary school serving this community? **Kodi pa sukulu ya pulaimale yabomayi pali ndondomeko yophikira ophunzira chakudya?**	*select_one yes_no*
Yes	*1*

No	*0*

428. What proportion of the primary school children in this community receive food under this program? **Ndi gawo lalikulu bwanji la ana a sukulu ya pulamale mdera/mmudzi muno limene limalandira chakudya pa ndondomekoyi?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

429. Is the food given already cooked and is eaten at school; or is it given as rations to cook at home; or both? **Kodi chakudya chimene chimaperekedwachi chimakhala chophikidwa kale kuti amadyera ku sukulu komweko kapena amatenga chosaphika amakaphikira kunyumba, kapena zonse?**	*select_one sch_food*
Cooked food	*1*
Rations	*2*
Both	*3*

430. Is there a government secondary school in this community? **Kodi kuli sukulu ya sekondale ya boma mu dera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

431. What is the distance to the nearest government secondary school serving this community? **Pali mtunda wautali bwanji kukafika ku sukulu ya sekondale ya boma imene ana amdera lino amapita?**	*decimal*
431. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

432. How many primary schools are there in this community? **Kodi kuli masukulu a pulayimale angati ku dera lino?**	*integer*

433. How many community day secondary schools are there in this community? **Kodi kuli masukulu a sekondale a CDSS angati ku dera lino?**	*integer*

434. How many primary schools run by religious organizations are there in this community? **Mu dera lino muli ma sukulu apulayimale angati oyendetsedwa ndi a chipembedzo?**	*integer*

435. How many secondary schools run by religious organizations are there in this community? **Mu dera lino muli ma sukulu asekondale angati oyendetsedwa ndi chipembedzo?**	*integer*

436. How many private primary schools are there in this community? **Mudera lino muli ma sukulu a pulayiveti apulayimale angati?**	*integer*

437. How many private secondary schools are there in this community? **Mudera lino muli ma sukulu asekondale a pulayiveti angati?**	*integer*

438. Is there an adult literacy centre in this community? **Kodi mu dera lino muli sukulu ya kwacha?**	*select_one yes_no*
Yes	*1*
No	*0*

439. Is there a place in this community to purchase common medicines such as painkillers and malaria tablets? **Kodi mudera lino muli malo amene mumakagulako mankhwala monga othetsa ululu ndi a malungo?**	*select_one yes_no*
Yes	*1*
No	*0*

440. What is the distance to the nearest place in this community to purchase common medicines such as painkillers and malaria tablets? **Pali mtunda wautali bwanji kukafika ku malo amene mumakagulako mankhwala monga othetsa ululu ndi a malungo?**	*decimalr*
440. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

441. Is there a health clinic (chipatala) in this community? **Mudera muno muli chipatala?**	*select_one yes_no*
Yes	*1*
No	*0*

442. What is the distance to the nearest place where there is a health clinic (chipatala)? **Pali mtunda wautali bwanji kukafika ku chipatala chomwe chili pafupi?**	*decimalr*
442. Units	*select_one distance_unit*
metre	*1*
KM	*2*

Mile	*3*

443. Is there a nurse, midwife or medical assistant permanently working at this health clinic? Kodi **kuli anamwino, azamba, kapena othandizira adokotala amene ndiokhazikika pa chipatalapo?**	*select_one midwife*
Always available	*1*
Sometimes available	*2*
Never available	*3*

444. Is this health facility… **Kodi chipatalachi ndi ...**	*select_one facility*
Government facility **Chipatala cha boma**	*1*
Religious facility **Chipatala cha mpingo**	*2*
Private facility **Chipatala cha munthu/pulaiveti**	*3*

445. Is this health facility electrified? **Kodi chipatalachi chili ndi magetsi?**	*select_one yes_no*
Yes	*1*
No	*0*

446. Does the village health facility have a Health Surveillance Assistant (HSA)? **Kodi chipatalachi chili ndi mlangizi wa za umoyo?**	*select_one yes_no*
Yes	*1*
No	*0*

447. What is the HSA's sex? **Mlangizi wa zaumoyoyu ndi wammuna kapena wamkazi?**	*select_one sex2*
Female	*1*
Male	*2*
Both male and female HSAs available	*3*

448. Does the HSA live in this community? **Kodi mlangizi wazaumoyo amakhala mudera lomwe lino?**	*select_one yes_no*
Yes	*1*
No	*0*

449. Does the HSA have a drug box? **Kodi mlangizi wazaumoyo ali ndi bokosi losungiramo mankhwala?**	*select_one yes_no*
Yes	*1*

No	*0*

450. What is the distance to the nearest health facility where there is a medical doctor or clinical officer? **Pali mtunda wautali bwanji kukafika ku chipatala chapafupi kumene kuli dokotala kapena dokotala wamng'ono?**	*decimal*
450. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

451. Is the doctor at a… **Kodi dokotala amene ali pafupi ali pa…**	*select_one facility*
Government facility **Chipatala cha boma**	*1*
Religious facility **Chipatala cha mpingo**	*2*
Private facility **Chipatala cha munthu/pulaiveti**	*3*

452. Are there any groups or programs in this community providing insecticide-treated (blue or green) mosquito bed nets free or at low cost? **Kodi kuno kuli magulu kapena ma project amene amapereka kwaulere kapena pa mtengo otsika ma neti audzudzu onyikidwa kale mmankhwala?**	*select_one yes_no*
Yes	*1*
No	*0*

453. Are there any groups working in this community to provide support and care to people who are chronically ill from diseases such as HIV/AIDS or tuberculosis? **Kodi kuno kuli magulu ena aliwonse amene amapereka chisamaliro kwa anthu odwalamatenda amgonagona monga HIV/AIDS kapena chifuwa chachikulu?**	*select_one yes_no*
Yes	*1*
No	*0*

454. What support do they provide? **Amapereka chithandizo cha mtundu wanji?**	*select_multiple care*
Medical care and medicine	*1*
Cash grants	*2*
Food or other in-kind grants	*3*
Mental and spiritual counseling	*4*
Other (specify)	*5*

455. Specify support	*Text*

456. Is there a commercial bank in this community (NBM, NBS, Standard, etc.)? **Kodi muli ndi banki mudera lino (monga NBS, Savings Bank, Standard, etc.)**	*select_one yes_no*
Yes	*1*
No	*0*

457. What is the distance to the nearest commercial bank? **Pali mtunda wautali bwanji kukafika kumene kuli banki imene yakuyandikirani kuno**	*decimal*
457. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

458. Are there any VSL groups in this community? **Kodi kuli magulu a banki m'khonde kapena banki ya mmudzi mu dera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

459. Are the VSL groups organized by a microfinance institution? **Kodi banki akumudziwa amayendetsedwa ndi mabungwe osunga ndi kubwekereketsa ndalama?**	*select_one yes_no*
Yes	*1*
No	*0*

460. Which microfinance institutions organize VSL groups in this community? **Kodi ndi mabungwe ati obwereketsa ndi kusunga ndalama amene amayendetsa ma banki mkhonde/banki ya m'mudzi mdera lino?**	*text*
461. Which microfinance institution(s) has the nearest office? **Kodi ndi mabungwe ati osungitsa ndi kubwereketsa ndalama amene ali ndi ma ofesi oyandikira mudera lino?**	*text*
462. Which microfinance institution(s) has the nearest office? **Kodi ndi mabungwe ati osungitsa ndi kubwereketsa ndalama amene ali ndi ma ofesi oyandikira mudera lino?**	*text*

463. Which microfinance institution(s) has the nearest office? **Kodi ndi mabungwe ati osungitsa ndi kubwereketsa ndalama amene ali ndi ma ofesi oyandikira mudera lino?**	*text*

464. What is the distance to the nearest microfinance institution? **Pali mtunda wautali bwanji kukafika kumene kuli kuli mabungwe obwereketsa ndalama?**	*decimal*
464. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

465. Is a resident of this community currently the Member of Parliament for the constituency of which this community is a part? **Kodi phungu wanyumba ya malamulo wa konstichuense ino amakhala mudera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

501. Which activities are the most important sources of employment for individuals in this community? **Kodi ntchito ziti zodalilika zimene anthu mudera lino amagwira?**	*select_one econ_activity*
Farming	*1*
Fishing	*2*
Firewood, charcoal selling	*3*
Small-scale trade & service provision	*4*
Beer brewing, kachasu	*5*
Handicraft production, small-scale industry	*6*
Transport	*7*
Large-scale commercial industry	*8*
Professional occupations	*9*
Civil service	*10*
Other (specify)	*11*

502. Do people in this community leave temporarily during certain times of the year to look for work elsewhere? **Kodi anthu amdera lino nthawi zina za pachaka amapita madera ena kwa nthawi yochepa kukasaka ntchito?**	*select_one yes_no*
Yes	*1*
No	*0*

503. During which months do people usually leave to look for work elsewhere? **Ndi miyezi yake iti ya pa chaka imene anthu amapita kukasaka ntchito kwina?**	*select_multiple month*
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*

504. What share of households in the community have members leaving temporarily to look for work elsewhere? **Ndi gawo lalikulu bwanji la makomo amdera lino limene limapita kukasaka ntchito kwina kwa kanthawi kochepa?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

505. Where do most of them go? **Ambiri mwa iwo amapita kuti?**	*select_one destination*
Rural areas	*1*
Urban areas	*2*
Outside Malawi	*3*

506. What is the most common type of work do they look for? **Amakasaka ntchito zantundu wanji kwenikweni?**	*select_one econ_activity*
Farming	*1*
Fishing	*2*
Firewood, charcoal selling	*3*
Small-scale trade & service provision	*4*

Beer brewing, kachasu	*5*
Handicraft production, small-scale industry	*6*
Transport	*7*
Large-scale commercial industry	*8*
Professional occupations	*9*
Civil service	*10*
Other (specify)	*11*
506. Specify type of work. **Nenani mtundu wa ntchito umene amakasaka?**	*text*

507. What is the second most common type of work do they look for? **Mtundu wa wachiwiri wa ntchito zimene amakasaka?**	*select_one econ_activity*
Farming	*1*
Fishing	*2*
Firewood, charcoal selling	*3*
Small-scale trade & service provision	*4*
Beer brewing, kachasu	*5*
Handicraft production, small-scale industry	*6*
Transport	*7*
Large-scale commercial industry	*8*
Professional occupations	*9*
Civil service	*10*
Other (specify)	*11*
507. Specify type of work. **Nenani mtundu wa ntchito umene amakasaka?**	*text*

508. Do people come to this community during certain times of the year to look for work? **Kodi anthu amabwera mudera lino nthawi zina za chaka kudzasaka ntchito?**	*select_one yes_no*
Yes	*1*
No	*0*

509. During which months do people usually come to this community to look for work? **Ndi miyezi yake iti ya pa chaka imene anthu amabwera kuno kuzasaka ntchito?**	*select_multiple month*
January	*1*
February	*2*
March	*3*
April	*4*

May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*

510. Where do most of them come from? **Ambiri mwa anthuwa amachokera kuti?**	*select_one destination*
Rural areas	*1*
Urban areas	*2*
Outside Malawi	*3*

511. What is the most common type of work they look for? **Amazasaka ntchito zantundu wanji kwenikweni?**	*select_one econ_activity*
Farming	*1*
Fishing	*2*
Firewood, charcoal selling	*3*
Small-scale trade & service provision	*4*
Beer brewing, kachasu	*5*
Handicraft production, small-scale industry	*6*
Transport	*7*
Large-scale commercial industry	*8*
Professional occupations	*9*
Civil service	*10*
Other (specify)	*11*
511. Specify type of work. **Nenani mtundu wa ntchito umene amakasaka?**	*text*

512. What is the second most common type of work they look for? Kodi **ndi mtundu wanji wachiwiri wa ntchito zimene amazasaka ?**	*select_one econ_activity*
Farming	*1*
Fishing	*2*
Firewood, charcoal selling	*3*
Small-scale trade & service provision	*4*

Beer brewing, kachasu	*5*
Handicraft production, small-scale industry	*6*
Transport	*7*
Large-scale commercial industry	*8*
Professional occupations	*9*
Civil service	*10*
Other (specify)	*11*
512. Specify type of work. **Nenani mtundu wa ntchito umene amakasaka?**	*text*

513. What is the daily ganyu wage for an adult male laborer? **Kodi amuna amalandira ndalama zingati patsiku akagwira ganyu?**	*integer*

514. What is the daily ganyu wage for an adult female laborer? **Kodi akazi amalandira ndalama zingati patsiku akagwira ganyu?**	*integer*

515. What is the daily ganyu wage for a child laborer? **Kodi ana amalandira ndalama zingati patsiku akagwira ganyu?**	*integer*

516. Is there a MASAF program in this community which hires residents who are in need of work? **Kodi kuli ntchito ya MASAF kuno imene imalemba ntchito anthu amene akuyifuna?**	*select_one yes_no*
Yes	*1*
No	*0*

517. What is the wage rate on the MASAF project for an adult male laborer? **Kodi abambo amalandira ndalama zingati akagwira ntchito ya MASAF?**	*decimal*

518. What period of time does this wage refer to? **Ndalama zimenezi amalandira pakapita nthawi yaitali bwanji?**	*integer*
518. Units	*select_one time_unit*
Day	*3*
Week	*4*
Month	*5*

519. What share of adult males in this community work for the MASAF project? **Ndigawo lalikulu bwanji la azibambo limene limagwira nawo ntchito za MASAF?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*

Three quarters	*4*
Almost all	*5*

520. What is the wage rate on the MASAF project for an adult female laborer? **Kodi amayi amalandira ndalama zingati akagwira ntchito ya MASAF?**	*decimal*

521. What period of time does this wage refer to? **Ndalama zimenezi amalandira pakapita nthawi yaitali bwanji?**	*integer*
521. Units	*select_one time_unit*
Day	*3*
Week	*4*
Month	*5*

522. What share of adult females in this community work for the MASAF project? **Ndigawo lalikulu bwanji la azimayi limene limagwira nawo ntchito za MASAF?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

523. Is there a WFP Food-for-Assets (F4A) program in this community which hires residents who are in need of work? **Kodi kuli ntchito za WFP za Food-4-Assets (F4A) kuno zimene zimalemba ntchito anthu amene akufuna ntchito?**	*select_one yes_no*
Yes	*1*
No	*0*

524. What is the wage rate on the WFP F4A project for an adult male laborer? **Kodi abambo amalandira ndalama zingati akagwira ntchito ya WFP F4A?**	*decimal*

525. What period of time does this wage refer to? **Ndalama zimenezi amalandira pakapita nthawi yaitali bwanji?**	*integer*
525. Units	*select_one time_unit*
Day	*3*
Week	*4*
Month	*5*

526. What share of adult males in this community work for the WFP F4A project? **Ndigawo lalikulu bwanji la azibambo limene limagwira nawo ntchito za WFP F4A?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

527. What is the wage rate on the WFP F4A project for an adult female laborer? **Kodi amayi amalandira ndalama zingati akagwira ntchito ya WFP F4A?**	*decimal*

528. What period of time does this wage refer to? **Ndalama zimenezi amalandira pakapita nthawi yaitali bwanji?**	*integer*
528. Units	*select_one time_unit*
Day	*3*
Week	*4*
Month	*5*

529. What share of adult females in this community work for the WFP F4A project? **Ndigawo lalikulu bwanji la azimayi limene limagwira nawo ntchito za WFP F4A?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

530. Are there any other public works programs in this community which hires residents who are in need of work? **Kodi pali ntchito zina zili zonse za mthandizi zimene zimalemba anthu ntchito amene akufuina mu dera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

531. What public works programs other than MASAF or WFP F4A are there in this community? **Ntchito zina za mthandizi zimene zilipo mu dera lino kupatula za MASAF kapena za WFP F4A ndi ziti?**	*text*

Note: Repeat 532 to 537 for all programs listed in 531

532. What is the wage rate on the …..... project for an adult male laborer? **Kodi abambo amalandira ndalama zingati akagwira ntchito ya …...?**	*decimal*

533. What period of time does this wage refer to? **Ndalama zimenezi amalandira pakapita nthawi yaitali bwanji?**	*integer*
533. Units	*select_one time_unit*
Day	*3*
Week	*4*
Month	*5*

534. What share of adult males in this community work for the ….. Project? **Ndigawo lalikulu bwanji la azibambo limene limagwira nawo ntchito za …..?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

535. What is the wage rate on the …..... project for an adult female laborer? **Kodi amayi amalandira ndalama zingati akagwira ntchito ya …...?**	*decimal*

536. What period of time does this wage refer to? **Ndalama zimenezi amalandira pakapita nthawi yaitali bwanji?**	*integer*
536. Units	*select_one time_unit*
Day	*3*
Week	*4*
Month	*5*

537. What share of adult females in this community work for the ….. Project? **Ndigawo lalikulu bwanji la azimayi limene limagwira nawo ntchito za …..?**	*select_one proportion*
Almost none	*1*
Quarter	*2*

Half	*3*
Three quarters	*4*
Almost all	*5*

601. In this community in most years, in which half of which month do most people normally plant their maize? **Kodi anthu kuno amadzala chimanga mu theka liti la mwezi mu zaka zambiri?**	*select_one half1*
1st half oct	*1*
2nd half oct	*2*
1st half nov	*3*
2nd half nov	*4*
1st half dec	*5*
2nd half dec	*6*
1st half jan	*7*
2nd half jan	*8*

602. In this community in most years, in which half of which month do most people normally harvest their maize? **Kodi anthu kuno amakolora chimanga mu theka liti la mwezi mu zaka zambiri?**	*select_one half2*
1st half mar	*1*
2nd half mar	*2*
1st half apr	*3*
2nd half apr	*4*
1st half may	*5*
2nd half may	*6*
1st half jun	*7*
2nd half jun	*8*

603. In most years, what proportion of cropland is burned post-harvest? **Ndi gawo lalikulu bwanji la minda limene limaotchedwa anthu akakolora?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

604. Which system best describes the use of cropland post-harvest? **Kuno minda ikakololedwa imagwiritsidwa ntchito bwanji?**	*select_one land_use2*

Animals graze freely, no fencing (Ziweto zimadya mwaufulu, osazitchingira)	*1*
Animals graze freely, but farmers may fence (Ziweto zimadya mwaufulu, koma alimi akhonza kutchingira)	*2*
Animals graze freely but farmers may only fence perennial cropland (Ziweto zimadya mwaufulu, koma alimi akhonza kuchingira mbewu zokalitsa munda monga nandolo)	*3*
Animals only graze on owners field (no open grazing) (Ziweto zimadya munda mwamwini ziweto basi)	*4*

605. Does an Agricultural Extension Development Officer live in this community? **Kodi alangizi (AEDO) azaulimi amakhala mudera lomwe lino?**	*select_one yes_no*
Yes	*1*
No	*0*

606. What is the distance to the office / residence of the nearest Agricultural Extension Development Officer? **Pali mtunda wautali bwanji kukafika kunyumba ya alangizi azaulimi (AEDO)?**	*decimal*
606. Units	*select_one distance_unit*
Metre	*1*
KM	*2*
Mile	*3*

607. Does a lead farmer live in this community? **Kodi mudera lino mumakhala lead farmer/ mulimi wachitsanzo?**	*select_one yes_no*
Yes	*1*
No	*0*

608. What is the distance to the residence of the nearest lead farmer? **Pali mtunda wautali bwanji kukafika kunyumba ya lead farmer/ mulimi wachitsanzo?**	*decimal*
608. Units	*select_one distance_unit*
metre	*1*
KM	*2*
Mile	*3*

609. Is there an irrigation scheme in this community? **Kodi kuli sikimu ya ulimi othirira kuno?**	*select_one yes_no*
Yes	*1*
No	*0*

610. How many farmers from the community in total farm in the irrigation scheme? **Ndi alimi angati amene amalima ku sikimu ya ulimi wamthirira?**	*integer*

611. How many sellers of fertilizer are there in the community? **Ogulitsa feteleza alipo angati mu dera lino?**	*integer*

612. How many sellers of hybrid maize seeds are there in the community? **Ogulitsa mbewu yamakono ya chimanga alipo angati mu dera lino?**	*integer*

613. Is there a local warehouse that the community members could use to store crops prior to sale? **Kodi mu dera lino muli malo amene anthu okhala kuno akhoza kukasungitsako mbewu zawo asanagulitse?**	*select_one yes_no*
Yes	*1*
No	*0*

614.How many households in this community practice zero tillage? **Ndi makomo angati mudera muno amene amapanga ulimi wa mtaya khasu?**	*integer*

615. How many households in this community sow seeds in plant pits? **Ndi makomo angati mudera muno amene amadzala mbewu mmayenje?**	*integer*

616. How many households in this community have earth or stone bunds? **Ndi makomo angati mudera muno amene anaika milambala kapena miyala pochepetsa kukokoloka kwa nthaka?**	*integer*

617. How many households in this community have terraces? **Ndi makomo angati mudera muno amene anaika ma terasi mminda?**	*integer*

618. How many households in this community practice agroforestry? **Ndi makomo angati mudera muno amene amadzala mitengo yoonjezera chonde mthaka ?**	*integer*

619. How many households in this community plant legume cover crops? **Ndi makomo angati mudera muno amene amaphimbira mminda ndi mbewu za mtundu wa nyemba?**	*integer*

701. Are there any agriculture-based projects operating in this community? **Kodi kuli ma project a zaulimi amene akupangika mu dera lino?**	*select_one yes_no*
Yes	*1*
No	*0*

702. List of the projects	*text*

Note: Repeat 703 -707 for all projects listed in 702

703. What is the main focus of the ……..... Project? **Kodi project ya ……. imagwira ntchito yanji kwenikweni?**	*select_one project_code*
Increase crop yields	*1*
Improve soil quality	*2*
Reduce soil erosion	*3*
Agro-forestry practices	*4*
Introduce legume cover crops	*5*
Minimum tillage/planting pits	*6*
Conservation agriculture.	*7*
Weed/invasive species control	*8*
New/improved varieties	*9*
Practices to adapt to climate change	*10*
Irrigation	*11*
Livestock-production	*12*
Livestock-diseases	*13*

704. How many farmers participate in this project? **Ndi alimi angati amene amatenga nawo mbali mu ….?**	*integer*

705. When was the project established? **Kodi project ya …... inayamba liti?**	*select_one month*
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*

Don't know	*99*
The date is…. **Tsikuli ndi…**	*select_one precision*
Precise	*1*
Estimated	*0*

706. How is the project funded? **Kodi ndalama zoyendetsera project ya …..... zimachokera kuti?**	*select_one funding*
Farmers only	*1*
External sources only	*2*
Farmers and external sources	*3*

707. What types of benefits does the project provide? **Phindu limene project ya ….. imabweretsa ndi chani?**	*select_multiple benefits*
Training / Farmer Field Schools	*1*
Free inputs	*2*
Subsidized inputs / input subsidy coupons	*3*
Credit	*4*
Cash in return for undertaking certain agricultural practices	*5*
Other (specify)	*6*
707. Specify other benefits. **Nenani phindu lina**	*text*

Please describe important events that have taken place in this community since [2014] including any events that have occurred this year. We are specifically interested in events that have changed the well-being of people in this community for better or for worse. Examples of events that might have made people worse off are: disease, epidemics, crop failures, natural disasters, price fluctuations, or the loss of key social services. Examples of events that may have made people better off are: new schools or medical facilities, new employment opportunities, or the construction of a new road.

Tiuzeni zinthu zikuluzikulu zimene zapangika mudera lino kuyambira mu chaka cha 2014 mpaka mchaka chino. Tikufuna mutiuze zinthu zimene zasintha umoyo wa anthu mdera lino. Kusinthaku kukhoza kukhala kutukula mimoyo ya anthu kapena kuilowetsa pansi. Mwachitsanzo, zinthu zimene zingalowetse miyoyo ya anthu pansi ndi monga: matenda, milili, kusachita bwino kwa mbewu, ngozi zachilengedwe, kusakhazikika kwa mitengo ya zinthu, kapena kutha kwa ntchito za thandizo. Zitsanzo za zochitika zomwe zapangitsa moyo wa munthu kutukuka ndi monga: kumangidwa kwa sukulu ndi zipatala zatsopano, kupezeka kwa mwayi wa ntchito, kapena kumangidwa kwa mseu watsopano.

Let's start with events that made people worse off. **Tiyambe ndi zinthu zimene zinalowetsa umoyo wa anthu pansi.**

note: Can list up to 4 events and repeat 802 - 805 for each

801. Event: **Zomwe zinachitika:**	*text*

802. Type of event: **Mtundu wa zomwe zinachitikazi:**	*select_multiple changes*
Drought	*1*
Flood	*2*
Crop disease/pests	*3*
Livestock disease	*4*
Human epidemic disease	*5*
Sharp change in prices	*6*
Massive job lay-offs	*7*
Loss of key social service(s)	*8*
Power outage(s)	*9*
Other bad event (specify)	*10*
Development project	*11*
New employment opportunity	*12*
New health facility	*13*
New road	*14*
New school	*15*
Improved transportation services	*16*
On-grid electricity	*17*
Off-grid electricity	*18*
MAREP (Malawi Rural Electrification Program)	*19*
Other good event (specify)	*20*
802. Specify other type of event. **Nenani mtundu wa zomwe zinachitikazi**.	*text*

803. In what year did this event occur? **Kodi …..... inachitika chaka chiti?**	*integer*

804. What share of the community was affected? **Ndi gawo lalikulu bwanji la dera lino limene linakhudzidwa?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*

Almost all	*5*

Now let's talk about events that made people better off. **Tiyenino tikambe za zinthu zimene zinapititsa patsogolo umoyo wa anthu.**

note: Can list up to 4 events and repeat 805 - 808 for each

804. Event: **Zomwe zinachitika:**	*text*

805. Type of event: **Mtundu wa zomwe zinachitikazi:**	*select_multiple changes*
Drought	*1*
Flood	*2*
Crop disease/pests	*3*
Livestock disease	*4*
Human epidemic disease	*5*
Sharp change in prices	*6*
Massive job lay-offs	*7*
Loss of key social service(s)	*8*
Power outage(s)	*9*
Other bad event (specify)	*10*
Development project	*11*
New employment opportunity	*12*
New health facility	*13*
New road	*14*
New school	*15*
Improved transportation services	*16*
On-grid electricity	*17*
Off-grid electricity	*18*
MAREP (Malawi Rural Electrification Program)	*19*
Other good (specify)	*20*
805. Specify other type of event. **Nenani mtundu wa zomwe zinachitikazi**.	*text*

806. In what year did this event occur? **Kodi ……. inachitika chaka chiti?**	*integer*

807. What share of the community was affected? **Ndi gawo lalikulu bwanji la dera lino limene linakhudzidwa?**	*select_one proportion*
Almost none	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
Almost all	*5*

901. Does the community own any…. **Kodi mu dera lanu lino muli zinthu izi?...**	*select_multiple resource*
Unallocated Arable Land	*1*
Forest	*2*
Pasture	*3*
Water Body: Specify	*4*
Other (Specify)	*5*

Note: repeat 902-914 for each selected resource in 901

902. Is the community able to determine independently the rules of access and use of its communal ……..? **Kodi anthu a mdera lino amatha kukhazikitsa okha malamulo a amene angagwiritse nawo ntchito ……... ndi mmene ……... ingagwiritsidwire ntchito?**	*select_one yes_no*
Yes	*1*
No	*0*

903. Is the communal ……..... recognized by the Traditional Authority? **Kodi a TA a dera lino amadziwa za ……...?**	*select_one yes_no*
Yes	*1*
No	*0*

904. Is the communal ……..... challenged or disputed by neighboring villages or estates? **Kodi pali zovuta kapena mikangano yokhudzana ndi ……... ndi midzi kapena ma esiteti okuzungulirani?**	*select_one yes_no*
Yes	*1*
No	*0*

905. Is the ……..... sometimes used by outsiders or neighboring villagers without consulting the village headman? **Kodi nthawi zina anthu a midzi yokuzungulirani kapena anthu akunja kwa mudzi wanu amatha kugwiritsa nawo ntchito ….. popanda kudzera kwa amfumu?**	*select_one yes_no*
Yes	*1*
No	*0*

906. Does the community have any specific exclusion mechanism targeted at keeping outsiders from using communal ….? **Kodi dela lanu lili ndi njira zoletsera anthu ochokera ma dera ena kuti asagwilitse nawo ntchito ….?**	*select_one yes_no*
Yes	*1*
No	*0*

907. How does the community manage to exclude outsiders from using communal …..... without consulting village headman? **Kodi anthu amdera lino amatani kuti aletse anthu akunja kwa mudzi amene amabwera kuzagwiritsa nawo ntchito …... osauza amfumu?**	*select_one exclude*
Use guards (kuika alonda)	*1*
USE THE THREAT OF Fine (kulipilitsa chindapusa)	*3*
USE THE THREAT OF Religious sanctions (malamulo a ku mpingo)	*4*
USE THE THREAT OF Physical punishment (kumenya)	*5*
Other (Specify)	*6*
Specify	*text*

908. What forms of restriction does the community place on its members regarding access and use of communal ….....? **Kodi ndi ziti zimene zilipo zochepetsa kagwiritsidwe ntchito ka …..... kwa anthu amdera lino?**	*select_one restriction.*
Time restrictions (kukhazikitsa malire a nthawi)	*1*
Limitations on number of users at a given time (kukhala ndi nambala yokhazikika ya anthu ogwiritsa ntchito panthawi)	*2*
Rotation among groups of families (kusinthana kwa mabanja ogwiritsa ntchito)	*3*
No restrictions (palibe chiletso)	*4*
Other (Specify)	*5*

909. How does community ensure among its members compliance with use rules for communal ….....? **Anthu amdera lino amapanga chani poonetsetsa kuti malamulo okhudza kagwiritsidwe ntchito ka …..... akutsatiridwa?**	*select_one compliance*
USE THREAT OF Fine (chindapusa)	*1*
USE THREAT OF Confiscation of tools/products (kulanda zipangizo kapena katundu)	*2*
USE THREAT OF use rights (kuletsa kugwiritsa ntchito)	*4*
USE THREAT OF Religious sanctions (malamulo a ku mpingo)	*5*
USE THREAT OF Social sanctions (kusalidwa mu zochitika)	*6*
USE THREAT OF Physical punishment (kumenya)	*7*
USE THREAT OF Discrimination at future handouts (kusalidwa mu zolandiralandira)	*8*
Do nothing (sachita chilichonse)	*9*

Other (Specify)	*10*

910. In general, how effective are community policies to ensure compliance concerning use rules for communal …..? **Kodi malamulo amu dela lanu ndi odalilika bwanji kunchito yonenetsetsa kuti anthu akutsatila malamulo okudzana ndi kagwiritsidwe ntchito ka .....?**	*select_one effectiveness*
Not Effective	*1*
Somewhat Effective	*2*
Fully Effective	*3*

911. Since 2014, has government taken over any communal ….? **Kuyambira 2014, kodi boma linatenga umwini wa ….. ina iliyonse kuno?**	*select_one yes_no*
Yes	*1*
No	*0*

912. What was the reason for the government takeover? **Ndi chifukwa chani boma linayamba kuyendetsa …..?**	*select_one takeover*
Initiate agricultural scheme	*1*
Construct public facilities	*2*
Convert into forest reserve	*3*
Convert into national park land	*4*
Convert into wildlife park land	*5*
Other (specify)	*6*

913. Since 2014, has a neighboring village taken over any communal ….....? **Kuyambila 2014, kodi mudzi oyandikila unatenga umwini wa …... ina iliyonse?**	*select_one yes_no*
Yes	*1*
No	*0*

914. Did the community lose rights to previously communal ….... following a mediated dispute? **Kodi dela lanu lilibeso ufulu ogwilitsa ntchito …... imene inkalolezedwa kugwilitsa ntchito kale chifukwa cha mikangano?**	*select_one yes_no*
Yes	*1*
No	*0*

1001. Which of the following organizations exist in the community? **Kodi ndi ati mwa magulu awa amene alipo mu dera lino?**	*select_multiple org*
Village Development Committee	*1*
Agricultural Cooperative	*2*

Tobacco Club	*3*
Farmers' Group	*4*
Savings & Credit Cooperative	*5*
Business Association	*6*
Women's Group	*7*
Youth Group	*8*
Political Group	*9*
Religious Group	*10*
Cultural Group	*11*
Health Committee	*12*
School Management Committee	*13*
Parent-Teacher Association	*14*
Sports Group	*15*
NGO	*16*
Community Police/Watch Group	*17*
Disabled Association	*18*
Other (Specify)	*19*
1001. Other Organization. **Bungwe lino**	*text*

Note: repeat 1002-1006 for all orgs selected in 1001

1002. How many ….. are there in the community? **Kodi mu dera lino muli magulu a …..... angati?**	*integer*

1003. How often do the members of the …. meet? **Kodi mamembala a gulu la …... amakumana pafupipafupi bwanji?**	*select_one meet*
Weekly	*1*
Monthly	*2*
Quarterly	*3*
Semi-Annually	*4*
Annually	*5*
Other (Specify)	*6*
1003 Specify number of meetings for _____. **Nenani kuti gulu la _____ imakumana pafupipafupi bwanji?**	*text*

1004. How many members does the … have? **Kodi mu gulu la ….. muli anthu angati?**	*integer*

1005. How many female members does the …. Have? **Mu …. muli anthu aakazi angati?**	*integer*

1006. How many members under the age of 30 does the …. have? **Mu …. muli anthu osadutsa zaka 30 angati?**	*integer*

Annex F. Household survey questionnaire

This Annex lists the questions and possible answers from the household questionnaire used in the baseline survey. It does not contain the survey logic (including skip and repeat patterns) programmed into the electronic version of the data collection tool. It can be used to better understand the baseline data, but not to replicate the survey.

001. District	*select_one district*
Balaka	*1*
Phalombe	*2*

002. Traditional Authority	*select_one TA*
TA 1	*1*
TA 2	*2*
TA 3	*3*
TA 4	*4*
TA 5	*5*
TA 6	*6*
TA 7	*7*
TA 8	*8*
TA 9	*9*
TA 10	*10*
TA 11	*11*
TA 12	*12*
TA 13	*13*
TA 14	*14*
TA 15	*15*
TA 16	*16*

003. GVH	*select_one GVH*
gvh_name 1	*1*
gvh_name 2	*2*
gvh_name 3	*3*
gvh_name 4	*4*
gvh_name 5	*5*
gvh_name 6	*6*
gvh_name 7	*7*
gvh_name 8	*8*

gvh_name 9	*9*
gvh_name 10	*10*
gvh_name 11	*11*
gvh_name 12	*12*
gvh_name 13	*13*
gvh_name 14	*14*
gvh_name 15	*15*
gvh_name 16	*16*
gvh_name 17	*17*

004. Village name	*select_one village*
village_name 1	*1*
village_name 2	*2*
village_name 3	*3*
village_name 4	*4*
village_name 5	*5*
village_name 6	*6*
village_name 7	*7*
village_name 8	*8*
village_name 9	*9*
village_name 10	*10*
village_name 11	*11*
village_name 12	*12*
village_name 13	*13*

005. Supervisor	*select_one supervisor*

006.Enumerator	*select_one enumerator*

007. Today, is this your:	*select_one interview*

Household ID	*integer*

008. Name of household head	*text*
009. GPS Coordinates	*geopoint*

Note: *In order to make a comprehensive list of all household members, please use the following probing questions:* *• Please give me the names of members of your immediate family who normally live and eat their meals here.* *(Write down name, sex and relationship to head. Start with household head.)* *• Then, give me names of any other persons related to you or other household members who normally live and eat their meals together here.* *• Are there any other persons not here who normally live and eat their meals here? For example household members studying elsewhere or traveling.* *• Then, give me names of other persons not related to you or other household members but who normally live and eat their meals together here, such as servants, lodgers or other who are not relatives.* *(DO NOT list servants who have houses elsewhere and guests who are visiting temporarily and have a household elsewhere)*
Kuti tilondoloze bwino anthu onse okhala mu nyumba ino, chonde gwiritsani ntchito mafunso awa: **Chonde ndipatseni mayina a azibale anu mmagazi amene amene mumakhala nawo komaso amadya zakudya panyumba pano.** ***(Lembani mayina, ngati ali aamuna kapena aakazi komaso ubale wawo ndi mutu wa banja lino.)*** **Kenaka, ndipatseni mayina a azibale anu ena mumakhala nawo komaso amadya zakudya limodzi panyumba pano.** **Alipo so anthu ena amene amakhala komaso kudya pakhomo pano? Mwachitsanzo anthu akuti ali ku sukulu kapena koyenda kwina.** **Kenaka, ndipatseni mayina a anthu akuti siazibale anu mmagazi amene mumakhala nawo komaso mumadya nawo zakudya limodzi panyumba pano, monga antchito, alendo ndi ena amene siazibale anu.** ***(Chonde, musalembe anthu antchito ndi alendo amene angobwera kwa kanthawi kochepa akuti ali ndi makomo awokwina.)***

101. First Name and last Name. **Dzina lonse**	*text*

102. What is _____'s sex? **Kodi _____ ndi wammuna kape wamkazi?**	*select_one sex*

103. _____'s relationship with the household head? **Kodi ubale wa _____ ndi mutu wabanja lino ndiotani?**	*select_one relationship*
Household head	*1*
Wife/husband	*2*
Child/adopted child	*3*
Grand child	*4*
Niece/nephew	*5*
Father/mother	*6*
Sister/brother	*7*

Son/daughter in law	*8*
Grandfather/mother	*9*
Father/mother in law	*10*
Other relative	*11*
Servant or servant relative	*12*
Lodger/lodgers relative (alendo angobwela)	*13*
Other non-relative	*14*
Other (specify)	*15*

103. Specify _____'s relationship to the head. **Nenani ubale wa _____ ndi mutu wabanja lino**	*text*

104. How old was _____on his/her last birthday? **Kodi patsiku lokumbukira kubadwa kwake lapitali _____ anakwanitsa zaka zingati?**	*integer*
The age is **Zakazi ndi…**	

105. How many months in the past 12 months (since September 2018) has _____ been away from this household? **Mu miyezi khumi ndi iwiri (12) yapitayi (kuchokera September 2018), kodi _____ anachokapo pakhomo pano kwa miyezi ingati?**	*Integer* *(round up or down)*

106. How many days did _____ eat in this household in the past 7 days? **Mu masiku asanu ndi awiri (7) apitawa, kodi _____ anadya pakhomo pano masiku angati?**	*integer*

107. Where was _____ born? **Kodi _____ anabadwira dela liti?**	*select_one birthplace*
This village	*1*
Other village in this district	*2*
Village in other district	*3*
This town or urban centre	*4*
Other town or urban centre in this district	*5*
Town or urban centre in other district	*6*
Outside Malawi	*7*

108. Has _____ always lived in this village? **Kodi _____ wakhala akukhala mudera lino kuyambira kalekale?**	*select_one yes_no*
Yes	*1*
No	*0*

109. How long is it since _____ came to stay here, in this village? _____ **wakhala mmudzi muno nthawi yaitali bwanji?**	*Integer*

110. What is the main language that you speak at home? **Kodi pakhomo pano mumagwiritsa ntchito kwambiri chiyankhulo chiti?**	*select_one language*
Chewa	*1*
Nyanja	*2*
Yao	*3*
Tumbuka	*4*
Lomwe	*5*
Nkhonde	*6*
Ngoni	*7*
Sena	*8*
Nyakyusa	*9*
Tonga	*10*
Lambya	*11*
Sukwa	*12*
Senga	*13*
English	*14*
Other (specify)	*15*

110. Specify main language used at home. **Nenani chiyankhulo chimene mumagwiritsa nthito kwambiri pakhomo pano.**	*text*

111. What religion, if any, does _____ practice? **Kodi _____ amatsatira chipembedzo chanji?**	*select_one religion*
None	*1*
Traditional	*2*
Christianity	*3*
Islam	*4*
Other religion (specify)	*5*

111. Specify _____ 's religion. **Longosolani chipembedzo cha _____ ?**	*text*

112. What is _____ 's present marital status? **Kodi _____ ali pa banja? Lotani?**	*select_one marital*
Monogamous married or non-formal union	*1*
Polygamous married or non-formal union	*2*
Separated (Kunyanyalitsana)	*3*

Divorced (Kusiyana)	*4*
Widow or widower	*5*
Never married	*6*

113. Under what type of custom (or tradition) did _____ marry or form a consensual union with his/her spouse? **Kodi _____ anatsata mwambo wanji pokwatira?**	*select_one tradition*
Patrilinear	*1*
Matrilineal	*2*

114. Upon marriage, does _____stay in his or her village or they moved to their spouses village? **Atakwatira, kodi _____ amakhalabe mmudzi mwakwawo kapena anatsatira mwamuna/mkazi wake?**	*select_one residence*
Stay in own village because the spouse is from the same village	*1*
Stay in own village even if spouse is from a different village	*2*
Moved to different village	*3*

115. Does _____'s spouse live in this household now? **Kodi mwamuna kapena mkazi wa _____ amakhala pakhomo pomwe pano?**	*select_one yes_no*
Yes	*1*
No	*0*

116. Does _____ have a spouse living outside this household now? **Kodi _____ ali ndi mwamuna kapena mkazi amene samakhala pakhomo pano?**	*select_one yes_no*
Yes	*1*
No	*0*

117. How many spouses does _____ have who are residing elsewhere? **Kodi _____ ali ndi amuna kapena akazi angati amene amakhala kwina?**	*integer*

118. Does _____ have the following difficulties seeing, even if wearing glasses? **Kodi _____ Amavutika kuona, olo atavala magalasi?**	*select_multiple disabilities*
No, no difficulty	*0*
Yes, some difficulty	*1*
Yes, a lot of difficulty	*2*
Cannot do at all	*3*

119. Does _____ have the following difficulties hearing, even if hearing aid? **Kodi amavutika kumva, olo atavala makina othandiza kumva?**	*select_multiple disabilities*
No, no difficulty	*0*
Yes, some difficulty	*1*
Yes, a lot of difficulty	*2*

Cannot do at all	*3*

120. Does _____ have the following difficulties walking or climbing? **Kodi _____ amavutika kuyenda kapena kukwera masitepesi?**	*select_multiple disabilities*
No, no difficulty	*0*
Yes, some difficulty	*1*
Yes, a lot of difficulty	*2*
Cannot do at all	*3*

121. Does _____ have the following difficulties remembering or concentrating? **Kodi _____ amavutika kukumbukira zinthu kapena kuika chidwi pa chinthu chimene akupanga?**	*select_multiple disabilities*
No, no difficulty	*0*
Yes, some difficulty	*1*
Yes, a lot of difficulty	*2*
Cannot do at all	*3*

122. Does _____ have difficulty (with self-care such as) washing all over or dressing? **Kodi _____ amavutika kuzisamala yekha monga kusamba kapena kuvala yekha?**	*select_multiple disabilities*
No, no difficulty	*0*
Yes, some difficulty	*1*
Yes, a lot of difficulty	*2*
Cannot do at all	*3*

123. Using your usual language, does _____ have difficulty communicating, (for example understanding or being understood by others)? **Kodi _____ amavutika kulumikizana ndi anthu ena mu chiyankhulo chimene iyeyo amagwiritsa ntchito kwambiri (mwachitsanzo kukanika kumva kapena kumvedwa ndi anthu ena)??**	*select_multiple disabilities*
No, no difficulty	*0*
Yes, some difficulty	*1*
Yes, a lot of difficulty	*2*
Cannot do at all	*3*

124. Does _____ have albinism? **Kodi _____ ali ndi khungu la chialubino?**	*select_one yes_no*
Yes	*1*
No	*0*

125. Is _____ able to read and write in English? **Kodi _____ amatha kulemba ndi kuwerenga chizungu?**	*select_one yes_no*

Yes	*1*
No	*0*

126. Is _____ able to read and write in Chichewa? **Kodi** _____ **amatha kulemba ndi kuwerenga Chichewa?**	*select_one yes_no*
Yes	*1*
No	*0*

127. Has _____ ever attended school? **Kodi** _____ **anapitako ku sukulu?**	*select_one yes_no*
Yes	*1*
No	*0*

128. What class is _____ in or what is the highest class that _____ ever attended? **Kodi** _____ **ali mu kalasi yanji kapena sukulu analekezera kalasi yanji?**	*select_one class*
STD 1	*1*
STD 2	*2*
STD 3	*3*
STD 4	*4*
STD 5	*5*
STD 6	*6*
STD 7	*7*
STD 8	*8*
FORM 1	*9*
FORM 2	*10*
FORM 3	*11*
FORM 4	*12*
FORM 5	*13*
FORM 6	*14*
UNIV. 1	*15*
UNIV. 2	*16*
UNIV. 3	*17*
UNIV. 4	*18*
UNIV. 5 and above	*19*
TC Yr. 1	*20*
TC Yr. 2	*21*
TC Yr. 3	*22*
TC Yr. 4	*23*

Adult informal education	*24*

129. What is the highest qualification that _____ has acquired? **Kodi setifiketi yaikulu imene _____ ali nayo ndi setifiketi yanji?**	*select_one qualification*
None	*1*
PSLC	*2*
JCE	*3*
MSCE	*4*
Non-university diploma	*5*
University diploma, degree	*6*
Post-graduate degree	*7*

130. Did _____ attend school in the last completed academic year? **Kodi _____ anapita ku sukulu mu chaka cha sukulu chapitachi?**	*select_one yes_no*
Yes	*1*
No	*0*

131. Is _____ currently attending school, or if school is not in session now, did he/she attend school in the session just completed and plan to attend the next session? **Kodi _____ akumapita ku sukulu, kapena ngati sukulu anatsekera, chaka cha sukulu chapitachi anapita ku sukulu ndipo apitaso chaka chikubwerachi?**	*select_one yes_no*
Yes	*1*
No	*0*

132. How much was spent on _____'s tuition, including extra tuition fees during the last 12 months? **Munagwiritsa ntchito ndalama zingati pamodzi polipira sukulu fees ya _____ mu miyezi 12 yapitayi?**	*integer*

133. How much was spent on _____'s expenditures on after school programs & tutoring during the last 12 months? **Munagwiritsa ntchito ndalama zingati pamodzi polipira part time ya _____ mu miyezi 12 yapitayi?**	*integer*

134. How much was spent on _____ 's school books and stationery during the last 12 months? **Munagwiritsa ntchito ndalama zingati pamodzi pogulira mabuku, makope ndi zolembera za _____ mu miyezi 12 yapitayi?**	*integer*

135. How much was spent on _____ 's school uniform clothing during the last 12 months? **Munagwiritsa ntchito ndalama zingati pamodzi pogula kapena kusoketsa school uniform ya _____ mu miyezi 12 yapitayi?**	*integer*

136. How much was spent on _____ 's boarding fees during the last 12 months? **Munagwiritsa ntchito ndalama zingati pamodzi polipira malo ogona a _____ ku sukulu mu miyezi 12 yapitayi?**	*integer*

137. How much was spent on _____ 's contribution for school project fund during the last 12 months? **Munalipira ndalama zingati pamodzi ngati ndalama ya chitukuko ku sukulu ya _____ mu miyezi 12 yapitayi?**	*integer*

138. How much was spent on _____ 's transport during the last 12 months? **Munalipira ndalama zingati pamodzi ngati transport ya _____ popita ndi kubwera ku sukulu mu miyezi 12 yapitayi?**	*integer*

139. How much was spent on _____ 's Parent/teacher Association & other related fees during the last 12 months? **Munagwiritsa ntchito ndalama zingati pamodzi polipira ku school committee ku sukulu ya _____ mu miyezi 12 yapitayi?**	*integer*

140. How much was spent on _____ 's other expenses during the last 12 months? **Munagwiritsa ntchito ndalama zingati pamodzi polipira zinthu zina zonse ku sukulu ya _____ mu miyezi 12 yapitayi?**	*integer*

141. Does _____ have a working cellphone? **Kodi _____ ali ndi phone yakuti imagwira ntchito?**	*select_one yes_no*
Yes	*1*
No	*0*

142. What is _____'s phone number?	*integer*
Note: Exclude the first 0, so that the number has only 9 digits starting with 8 or 9.	

Note: ENUMERATOR: Ask the questions below of the household head. If the household head is not available for interview, ask the spouse of the head or the next most responsible household member. **Enumerator: Mafunso otsatilawa mufunse mutu wa banja. Ngati mutu wa banja palibe, afunseni akazi awo kapena wotsatira kwa makolo mu nyumbamo.**

201. In the past 5 years, that is since September of 2014, have any individuals joined the household due to marriage? **Mu zaka zisanu zapitazi, ndekuti kuyambira September 2014, pali wina amene wakhala nawo pa khomo lanu chifukwa cha ukwati?**	*select_one yes_no*
Yes	*1*
No	*0*

202. How many household members have joined the household since ____ September of 2014 due to marriage? **Ndi anthu angati amene anabwera kudzakhala nawo pa khomo lanu _____ September mu 2014 chifukwa cha ukwati?**	*integer*

203. In the past 5 years, that is since September of 2014, have any individuals left the household due to marriage? **Mu zaka zisanu zapitazi, ndekuti kuyambira September 2014, pali wina amene wachoka pa khomo lanu chifukwa cha ukwati?**	*select_one yes_no*
Yes	*1*
No	*0*

204. How many household members have left the household since ____ September of 2014 due to marriage? **Ndi anthu angati amene achoka pa khomo lanu _____ September mu 2014 chifukwa cha ukwati?**	*integer*

205. Name of individual(s) who have joined the household due to marriage since September 2014.	*select_multiple family*
Family list	

206. In what year did _____ join the household due to marriage? _____ **anazakhala pa khomo lanu muchaka chiti chifukwa cha ukwati?**	*select_one myear*
2014	*1*
2015	*2*
2016	*3*
2017	*4*
2018	*5*
2019	*6*

207. In what month did _____ join the household due to marriage? _____ **anazakhala nawo pa khomo lanu mwezi uti chifukwa cha ukwati?**	*select_one month*
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*

December	*12*
Don't know	*99*

208. How old was _____ at the time of marriage? _____ **anali ndi zaka zingati pa nthawi imene amakwatira?**	*integer*
Note: Completed age at the time of marriage in years. If don't know, record 88	

209. What was _____ 's highest education qualification at the time of marriage? _____ **anali ndi satifiketi iti yamaphunzilo pa nthawi imene amakwatira?**	*select_one qualification*
None	*1*
PSLC	*2*
JCE	*3*
MSCE	*4*
Non-univ diploma	*5*
Univ diploma, degree	*6*
Post-grad degree	*7*

210. Where did _____ reside prior to marriage? _____ **amakhala kuti asanakwatire?**	*select_one premarriage*
In the same village	*1*
Different village but the same GVH	*2*
Different GVH but the same TA	*3*
Different TA but the same District	*4*
Different District	*5*
Don't know	*88*

211. In what district did _____ reside prior to marriage? _____ **amakhala boma liti asanakwatire?**	*select_one district*
Balaka	*1*
Phalombe	*2*

212. Were _____ 's parents alive at the time of marriage? **Makolo a _____ anali moyo nthawi yomwe iye amakwatira?**	*select_one parents*
Yes	*1*
No, mother dead	*2*
No, Father dead	*3*
No, both dead	*4*
Don't know	*88*

213. What was the main economic activity of _____ 's parents at the time of wedding? **Kodi makolo a _____ amapanga ntchito yanji yobweretsa chuma pa nthawi yomwe amakwatira?**	*select_one econ_act*
Wage employment out of agriculture	*1*
Wage employment in agriculture (including livestock keeping)	*2*
Self-employment out of agriculture	*3*
Self-employment in agriculture (including livestock keeping)	*4*
Casual laborer	*5*
Student	*6*
Sick and unable to work	*7*
Retired	*8*
Other (specify)	*9*
Don't know	*88*

213. Specify the main economic activity of _____'s parents at the time of wedding? **Nenani ntchito imene makolo a _____ amapanga yobweretsa chuma pa nthawi yomwe amakwatira?**	*text*

214. Did _____ 's parents own land at the time of the wedding? **Kodi makolo a _____ anali ndi malo pa nthawi imene amakwatila?**	*select_one dk*
Yes	*1*
No	*2*
Don't know	*88*

215. Did this household make any marriage payment to _____ 's family for the marriage? **Kodi banja lanu linapeleka malowolo ena aliwonse ku banja la _____ ? (malowolo, chikole…)**	*select_one lobola*
Yes, Cash	*1*
Yes, in kind	*2*
No	*3*
Don't know	*88*

216. What was the total value of the payments (cash or in-kind) made by this household at the time of the marriage? **Malowolo amene anaperekedwa ndi khomo lanu (ndalama kapena zosakhala ndalama) anali okwana ndalama zingati?**	*integer*
Note: If don't know, record 88888888	

217. Did this household receive any marriage payment from the family of _____ 's spouse? **Khomo lanu linalandilako malowolo kuchokera ku banja la kwa mkazi kapena mamuna wa _____ za ukwati?"**	*select_one lobola*
Yes, Cash	*1*

Yes, in kind	*2*
No	*3*
Don't know	*88*

218. What was the total value of the payments (cash or in-kind) received by this household at the time of the marriage? **Malowolo amene munalandira (ndalama kapena osati ndalama) anali okwana ndalama zingati?**	*integer*
Note: If don't know, record 88888888	

219. Name of individual(s) who have departed the household due to marriage since 2014	*text*

220. In what year did _____ leave the household due to marriage? _____ **anachoka pa khomo lanu liti chifukwa cha ukwati?**	*select_one myear*
2014	*2014*
2015	*2015*
2016	*2016*
2017	*2017*
2018	*2018*
2019	*2019*

221. In what month did _____ leave the household due to marriage? _____ **anachoka pa khomo lanu mwezi uti chifukwa cha ukwati?**	*select_one month*
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*
Don't know option	*99*

222. How old was _____ at the time of marriage? _____ **anali ndi zaka zingati pa nthawi imene amakwatira?**	*integer*

Note: Completed age at the time of marriage in years. If don't know, record 88	

223. What was _____ 's highest education qualification at the time of marriage? _____ **anali ndi satifiketi iti yamaphunzilo pa nthawi imene amakwatira?**	*select_one qualification*
None	*1*
PSLC	*2*
JCE	*3*
MSCE	*4*
Non-univ diploma	*5*
Univ diploma, degree	*6*
Post-grad degree	*7*

224. Where did _____ move to after marriage? _____ **anakakhala kuti atakwatira?**	*select_one premarriage*
In the same village	*1*
Different village but the same GVH	*2*
Different GVH but the same TA	*3*
Different TA but the same District	*4*
Different District	*5*
Don't know	*88*

225. In what district did _____ move to after marriage? _____ **anakakhala boma liti atakwatire?**	*select_one district*
Balaka	*1*
Phalombe	*2*

226. Were the parents of _____'s spouse alive at the time of marriage? **Makolo a mamuna kapena mkazi wa _____ anali moyo nthawi yomwe iye amakwatira?**	*select_one parents*
Yes	*1*
No, mother dead	*2*
No, Father dead	*3*
No, both dead	*4*
Don't know	*88*

227. What was the main economic activity of _____ 's parents at the time of wedding? **Kodi makolo a _____ amapanga ntchito yanji yobweretsa chuma pa nthawi yomwe amakwatira?**	*select_one econ_act*
Wage employment out of agriculture	*1*

Wage employment in agriculture (including livestock keeping)	*2*
Self-employment out of agriculture	*3*
Self-employment in agriculture (including livestock keeping)	*4*
Casual laborer	*5*
Student	*6*
Sick and unable to work	*7*
Retired	*8*
Other (specify)	*9*
Don't know	*88*

227. Specify the main economic activity of _____ 's parents at the time of wedding? **Nenani ntchito imene makolo a _____ amapanga yobweretsa chuma pa nthawi yomwe amakwatira?**	*text*

228. Did this household make any marriage payment to the family of _____ 's spouse for the marriage? **Kodi banja lanu linapeleka malowolo ena aliwonse ku banja la mamuna kapena mkazi wa _____ ? (malowolo, chikole…)**	*select_one lobola*
Yes, Cash	*1*
Yes, in kind	*2*
No	*3*
Don't know	*88*

229. What was the total value of the payments (cash or in-kind) made by this household at the time of the marriage? **Malowolo amene anaperekedwa ndi khomo lanu (ndalama kapena zosakhala ndalama) anali okwana ndalama zingati?**	*integer*
Note: If don't know, record 99999999	

230. Did this household receive any marriage payment from the family of _____ 's spouse for the marriage? **Khomo lanu linalandilako malowolo kuchokera ku banja la kwa mkazi kapena mamuna wa _____ a ukwati?**	*select_one lobola*
Yes, Cash	*1*
Yes, in kind	*2*
No	*3*
Don't know	*88*

231. What was the total value of the payments (cash or in-kind) received by this household at the time of the marriage? **Malowolo amene munalandira (ndalama kapena osati ndalama) anali okwana ndalama zingati?**	*integer*
Note: If don't know, record 99999999	

301. Do you rent the house you stay in? **Kodi nyumba mukukhalayi ndi ya lendi?**	*select_one yes_no*
Yes	*1*
No	*0*

302. Estimate the rent you could receive if you rented this property? **Kodi inakakhala kuti nyumba yanuyi mumapangitsa lendi bwezi mukulandira ndalama zingati?**	*integer*
	select_one rent
Month	*1*
Year	*2*

303. How much do you pay to rent this property? **Kodi mumalipira lendi ya ndalama zingati?**	*decimal*
	select_one rent
Month	*1*
Year	*2*
304. The outer walls of the main dwelling of the household are predominantly made of what material? **Kodi makoma a nyumba yaikulu pakhomo pano anamangidwa ndi chani?**	*select_one wall*
Grass	*1*
Mud (Yomata)	*2*
Compacted earth (Yamdindo)	*3*
Mud brick (unfired)	*4*
Burnt bricks	*5*
Concrete	*6*
Wood	*7*
Iron sheets	*8*
Other (specify)	*9*
Specify other wall material. **Longosolani kuti makoma anamangidwa ndi chani.**	*text*

305. The roof of the main dwelling of the household are predominantly made of what material? **Kodi denga la nyumba yaikulu pakhomo pano linafoleledwa ndi chani?**	*select_one roof*
Grass	*1*
Iron sheets	*2*
Clay tiles	*3*
Concrete	*4*
Plastic sheeting	*5*

Other (specify)	*6*
Specify other roof material. **Longosolani kuti denga linafoleledwa ndi chani.**	*text*

306. The floor of the main dwelling of the household are predominantly made of what material? **Kodi pansi pa nyumba yaikulu pakhomo pano panazilidwa ndi chani?**	*select_one floor*
Sand	*1*
Smoothed mud	*2*
Smooth cement	*3*
Wood	*4*
Tile	*5*
Other (specify)	*6*
Specify other floor material. **Longosolani kuti pansi panazilidwa ndi chani.**	*text*

307. What is your main source of lighting fuel? **Kodi mumagwiritsa ntchito chani pounikira usiku?**	*select_one lighting*
Collected firewood	*1*
Purchased firewood	*2*
Grass	*3*
Paraffin	*4*
Electricity	*5*
Gas	*6*
Battery/dry cell (Torch)	*7*
Candles	*8*
Other (specify) Add solar as an option	*9*
Specify other main source of lighting fuel. **Longosolani njira yomwe mumagwiritsa ntchito pounika usiku.**	*text*

308. What is your main source of cooking fuel? **Kodi mumagwiritsa ntchito chani pophika?**	*select_one cooking*
Collected firewood	*1*
Purchased firewood	*2*
Paraffin	*3*
Electricity	*4*
Gas	*5*
Charcoal	*6*

Crop residue	*7*
Saw dust	*8*
Animal waste	*9*
Other (specify)	*10*
Specify other main source of cooking fuel. **Longosolani njira yomwe mumagwiritsa ntchito pophika.**	*text*

309. Do you ever use firewood for fuel? **Kodi mumagwiritsa ntchito nkhuni?**	*select_one yes_no*
Yes	*1*
No	*0*

310. Do you ever collect firewood? **Kodi mumakatola nkhuni?**	*select_one yes_no*
Yes	*1*
No	*0*
311. Where do you collect firewood? **Mumazitola kutiko nkhunizo?**	*select_one firewood*
Own woodlot	*1*
Community woodlot	*2*
Forest reserve	*3*
Unfarmed areas of the community	*4*
Other (specify)	*5*
Specify where you collect firewood. **Longosolani komwe mumakatola nkhuni.**	*text*

312. What is your main source of drinking water? **Kodi madzi akumwa mumawatenga kuti?**	*select_one water*
Piped into dwelling	*1*
Piped into yard/plot	*2*
Communal standpipe	*3*
Open well in yard/plot	*4*
Open public well	*5*
Protected public well	*6*
Borehole	*7*
Spring	*8*
River/stream	*9*
Pond/lake	*10*
Dam	*11*
Rainwater	*12*
Tanker truck/bowser	*13*

Bottled water	*14*
Other (specify)	*15*
Specify other main source of drinking water. **Longosolani komwe mumatenga madzi akumwa.**	*text*

313. How long does it take you to walk (one way) to the main water source from your dwelling? **Kodi mumayenda nthawii yaitalii bwanji (kupita kokha) kukatunga madzi?**	*decimal*
Note: If water source is on your premises record 99	*select_one timeunit*
Minute	*1*
Hour	*2*

314. What type of toilet facility does your household have? **Kodi muli ndi chimbudzi chotani pa nyumba panu?**	*select_one toilet*
Flush toilet	*1*
VIP latrine (ventilation improved pit)	*2*
Traditional latrine with roof	*3*
Traditional latrine without roof	*4*
None	*5*
Other (specify)	*6*
Specify other type of toilet facility at the household. **Nenani mtundu wa chimbudzi chomwe mulinacho panyumba panu.**	*text*

315. Do any members of your household sleep under a bed net to protect against mosquitoes at some time of the year? **Mnyumba mwanu muli munthu aliyense amene amagona mu neti ya udzudzu pa nthawi ina iliyonse pa chaka?**	*select_one yes_no*
Yes	*1*
No	*0*

316. Do you, either by yourself or together with another household member or someone outside your household, currently have an account with a bank, credit union, microfinance company, village savings organization, or another financial institution? **Kodi inuyo kapena munthu aliyense pakhomo pano, kaya payekha kapena ndi munthu wina wa kunja kwa nyumba ino, ali ndi account ku bank, banki ya kumudzi kapena mabungwe ena osunga ndi kukongoza ndalama?**	*select_one yes_no*
Yes	*1*
No	*0*

317. With how many institutions do you have an account?	*select_one fin_rep*
1	*1*

2	*2*
3 or more	*3*

318. With which financial institution do you have the _____ account? **Kodi muli ndi akaunti _____ ku banki kapena bungwe losungitsa ndikubwereketsa ndalama iti?**	*select_one cumo*
CUMO	*1*
Other financial institution(s)	*2*
CUMO and other financial institution(s)	*3*
Don't know	*4*
Specify financial institution. **Nenani banki kapena bungwe losungitsa ndalama lina.**	*text*

319. How many years have you had the _____ account? **Kodi akaunti _____ mwakhala nayo zaka zingati?**	*integer*
Note: Enter 0 if less than 1 year.	

320. When did you last deposit money to the _____ account? **Kodi munasungitsa ndalama ku akaunti _____ komaliza liti?**	*select_one last_use*
Within the past week	*1*
Within the past month	*2*
Within the past year	*3*
More than a year ago	*4*
Never	*5*

321. When did you last withdraw money from the _____ account? **Kodi munakatapa ndalama ku akaunti _____ komaliza liti?**	*select_one last_use*
Within the past week	*1*
Within the past month	*2*
Within the past year	*3*
More than a year ago	*4*
Never	*5*

322. Does any other member of your household, either by him/herself or together with another member or someone outside your household, currently have an account with a bank, credit union, microfinance company, village savings organization, or another financial institution? **Kodi munthu aliyense pakhomo pano, kaya payekha kapena ndi munthu wina wa kunja kwa nyumba ino, ali ndi account ku bank kapena mabungwe ena osunga ndi kukongoza ndalama?**	*select_one yes_no*
Yes	*1*
No	*0*

323. With which financial institution(s) do they have an account? **Kodi ali ndi akaunti ku banki kapena mabungwe osungitsa ndikubwereketsa ndalama ati?**	*select_one cumo*
CUMO	*1*
Other financial institution(s)	*2*
CUMO and other financial institution(s)	*3*
Don't know	*4*
Specify financial institution. **Nenani banki kapena bungwe losungitsa ndalama lina.**	*text*

324. How many years have they had the account with CUMO? **Kodi mwakhala ndi akaunti ya CUMO kwa zaka zingati?**	*integer*
Note: Enter 0 if less than 1 year. Enter 99 if unknown.	
How many years have they had the account? **Kodi akaunti akhala nayo zaka zingati?**	*integer*
Note: If more than one account, enter details of the oldest one. Enter 0 if less than 1 year. Enter 99 if unknown.	

325. In the past year (12 months), have you used an account at a bank, credit union, etc. of someone else in your household or community? **Mu miyezi khumi ndi iwiri (12) yapitayi, kodi munagwiritsako ntchito account ya ku banki kapena mabungwe ena osunga ndi kukongoza ndalama ya munthu wina wa mnyumba kapena mmudzi muno?**	*select_one yes_no*
Yes	*1*
No	*0*

326. In the past year (12 months), has anyone in your household used an account at a bank, credit union, etc. of someone else in your household or community? **Mu miyezi khumi ndi iwiri (12) yapitayi, pali wina aliyense mnyumba amene anagwiritsako ntchito account ya ku bank kapena mabungwe ena osunga ndi kukongoza ndalama ya munthu wina wa mnyumba kapena mmudzi muno?**	*select_one yes_no*
Yes	*1*
No	*0*

401. Who in the household is knowledgeable about food consumed in the household? **Kodi amene amadziwa kwambiri za zakudya zimene zimadyedwa pakhomo pano ndi ndani?**	*select_one family*
From list of names provided.	

402. Who in the household is reporting about consumption in the household in this module? **Kodi akuyankha zokhudzana ndi kadyedwe mu gawo lino ndi ndani?**	*select_one family*

From list of names provided.

403. Over the past one week (7 days), did you or others in your household consume any...? **Mu sabata yapitayi (masiku 7), kodi inu kapena wina aliyense pakhomo panu pano anadyako…**	*select_multiple food_item*
Maize ufa mgaiwa (normal ufa)	*101*
maize ufa refined (fine flour)	*102*
Maize ufa madeya (bran flour)	*103*
maize grain (not as ufa)	*104*
Green maize	*105*
Rice	*106*
Finger millet (mawere)	*107*
Sorghum (Mapira)	*108*
Pearl millet (mchewere)	*109*
Wheat flour	*110*
Bread	*111*
Buns, scones	*112*
Biscuits	*113*
Spaghetti, macaroni, pasta	*114*
Breakfast cereal	*115*
Infant feeding cereal	*116*
Other cereal (Specify)	*117*
Cassava tubers	*201*
Cassava flour	*202*
White sweet potatoes	*203*
Orange sweet potatoes	*204*
Irish potato	*205*
Potato crisps	*206*
Plantain, cooking banana	*207*
Cocoyam (masimbi)	*208*
other roots, tubers, plaintains	*209*
Beans	*301*
Pigeon pea (nandolo)	*303*
Groundnut	*304*
Groundnut flour	*305*
Soyabean flour	*306*
Ground bean (nzama)	*307*

Cowpea (Khobwe)	*308*
Macadamia nuts (magede)	*309*
Other pulses and nuts	*310*
Onion	*401*
Cabbage	*402*
Tanaposi/Rape	*403*
Nkhwani	*404*
Chinese cabbage	*405*
Other cultivated green leafy vegetables	*406*
Gathered wild green leaves	*407*
Tomato	*408*
Cucumber	*409*
Pumpkin	*410*
Okra/Therere	*411*
Tinned vegetables	*412*
Mushroom	*413*
Other vegetables	*414*
Eggs	*501*
Dried fish	*502*
Fresh fish	*503*
Beef	*504*
Goat	*505*
Pork	*506*
Mutton (nyama ya nkhosa)	*507*
Chicken	*508*
Other poultry-guinea fowl, doves etc	*509*
Small animals-rabbits, mice etc	*510*
termites, other insects (ngumbi, caterpillar)	*511*
Tinned meat or fish	*512*
Smoked fish	*513*
Fish soup/sauce	*514*
Other animal foods	*515*
Mango	*601*
Banana	*602*
Citrus-Naartje, orange, etc	*603*
Pineapple	*604*

Papaya	*605*
Guava	*606*
Avocado	*607*
Wild fruit (masawu, malambe)	*608*
Apple	*609*
Other fruits	*610*
Maize-boiled or roasted	*820*
Chips (vendor)	*821*
Cassava-boiled (vendor)	*822*
Eggs-boiled (vendor)	*823*
Chicken (vendor)	*824*
Meat (vendor)	*825*
Fish (vendor)	*826*
Mandazi, doughnut (vendor)	*827*
Samosa (vendor)	*828*
Meal eaten at restaurant	*829*
Other cooked foods	*830*
Fresh milk	*701*
Powdered milk	*702*
Margarine-Blueband	*703*
Butter	*704*
Chambiko	*705*
Yoghurt	*706*
Cheese	*707*
Infant feeding formula (for bottle)	*708*
Other milk, milk products	*709*
Sugar	*801*
Sugarcane	*802*
Cooking oil	*803*
Other sugars, fats, oils	*804*
Tea	*901*
Coffee	*902*
Cocoa, milo	*903*
Squash (Sobo drink concentrate)	*904*
Fruit juices	*905*
Freezes	*906*

Soft drinks (Coca-cola, Fanta, Sprite, etc)	*907*
Chibuku (commercial traditional-style beer)	*908*
Bottled water	*909*
Maheu	*910*
Bottled/canned beer (Carlsberg, etc)	*911*
Thobwa	*912*
Traditional beer (Masese)	*913*
Wine or commercial liquor	*914*
Locally brewed liquor (kachasu)	*915*
Other beverages	*916*
Salt	*810*
Spices	*811*
Yeast, baking powder, bicarbonate of soda	*812*
Tomato sauce (bottle)	*813*
Hot sauce (Nali, etc)	*814*
Jam, jelly	*815*
Sweets, candy, chocolates	*816*
Honey	*817*
Other spices and condiments	*818*

404. How much _____did your household consume in total in the past week? **Kodi munadya/kumwa _____ ochuluka bwanji pakhomo panu pano mu sabata yathayi?**	*decimal*

404. Unit. **Kayezedwe ka mlingo wa chakudya**	*select_one foodunit*
Kilogram	*1*
50 KG bag	*2*
Pail (Small) (Chigoba)	*3*
Pail (Large) (Ndowa)	*4*
No. 10 plate (khofi)	*5*
No. 12 plate (tina)	*6*
Bunch (phava)	*7*
Piece	*8*
Heap (mulu)	*9*
Bale	*10*
Litre	*12*

Gram	*13*
Millilitre	*14*
Teaspoon	*15*
Sachet/Tube	*16*
Other	*17*

405. How much _____ came from purchases? **Ndi** _____ **ochuluka bwanji umene munachita kugula?**	*decimal*

406. How much did you spend on _____ ? **Munagwiritsa ntchito ndalama zingati kugula** _____ **?**	*decimal*

407. How much _____ came from own production? **Ndi** _____ **ochuluka bwanji umene munalima nokha?**	*decimal*

408. How much _____ came from gifts and other sources? **Ndi** _____ **ochuluka bwanji umene munachita kupatsidwa ngati mphatso kapena kupeza munjira ina?**	*decimal*

409. Over the past 7 days, how many days did you or others in your household consume any Cereals, Grains, and Cereal Products? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya zokhutitsa?**	*integer*
Note: Maize grain/flour; Green maize; Rice; Finger millet; Pearl millet; sorghum; Wheat flour; Bread; Pasta; Other cereal	

410. Over the past 7 days, how many days did you or others in your household consume any Roots, Tubers and Plantains? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya zochokera ku mizu?**	*integer*
Note: Cassava tuber/flour; sweet potato; Irish potato; Other tuber/plantain	

411. Over the past 7 days, how many days did you or others in your household consume any Nuts and Pulses? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya za mgulu la nyemba ndi mtedza?**	*integer*
Note: Bean; Pigeon pea; Macademia nut; ground bean; Groundnut flour; Cow pea; other nut/pulse	

412. Over the past 7 days, how many days did you or others in your household consume any Vegetables? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya za mgulu la masamba?**	*integer*
Note: Onion; Cabbage; Tanaposi; nkhwani; wild green leaves; Tomato; cucumber; Other vegetables/leaves	

413. Over the past 7 days, how many days did you or others in your household consume any Meat, Fish, and Animal products? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya za mgulu la nyama kapena nsomba?**	*integer*
Note: Egg;Dried/Fresh/Smoked fish (excuding fish sauce/powder); Beef; Goat meat; Pork; Poultry; Other meat	
414. Over the past 7 days, how many days did you or others in your household consume any Fruits? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya za mgulu la zipatso?**	*integer*
Note: Mango; Banana; citrus; Pineapple; Papaya; Guava; Avocado; Apple; Other fruit	

415. Over the past 7 days, how many days did you or others in your household consume any Milk/milk products? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munamwa mkaka kapena zakudya za mgulu la mkaka?**	*integer*
Note: Fresh/Powdered/Soured milk; Yorghut; Cheese; Other milk-excluding Margarine/ butter or small amounts of milk for tea/coffee	

416. Over the past 7 days, how many days did you or others in your household consume any Fats/oil? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya za mafuta?**	*integer*
Note: Cooking oil; Butter; Margarine; Other Fat/oil	

417. Over the past 7 days, how many days did you or others in your household consume any sugar/Sugar products/Honey? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya za shuga kapena uchi?**	*integer*
Note: Sugar; sugarcane; honey; jam; sweets/candy/chocolate/other sugar products	

418. Over the past 7 days, how many days did you or others in your household consume any Spices/Condiments? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene munadya zakudya za zothira zokometsera ndikununkhiritsa ndiwo?**	*integer*
Note: Tea; Coffee/Milo/salt; spices; yeast/baking powder; tomato/hot sauce; fish powder/sauce; other condiment-including small amounts of milk for tea/coffee	

501. In the past 7 days, did you worry that your household will not have enough food? **Pa masiku asanu ndi awiri (7) apitawa, pali masiku amene munali ndi nkhawa kuti simukhala ndi chakudya chokwanira?**	*select_one yes_no*
Yes	*1*
No	*0*

502. In the past 7 days, how many days did you or someone in your household have to rely on less preferred and/or less expensive foods? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene inu kapena wina aliyense mu nyumba mwanu muno anadalira chakudya chakuti samachikonda kapena chotchipa?**	*integer*

503. In the past 7 days, how many days did you or someone in your household had to limit portion sizes at meal times? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene inu kapena wina aliyense mu nyumba mwanu muno anachepetsa mlingo wa chakudya chimene amadya?**	*integer*

504. In the past 7 days, how many days did you or someone in your household had to reduce number of meals eaten in a day? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene inu kapena wina aliyense mu nyumba mwanu muno anachepetsa nambala ya zakudya zimene amadya patsiku?**	*integer*

505. In the past 7 days, how many days did you or someone in your household had to restrict consumption by adults in order for children to eat? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene inu kapena wina aliyense mu nyumba mwanu muno anachepetsa chakudya chimene anthu akuluakulu amadya kuti ana adye?**	*integer*

506. In the past 7 days, how many days did you or someone in your household had to borrow food, or rely on help from a friend or relative? **Pa masiku asanu ndi awiri (7) apitawa, ndi masiku angati amene inu kapena wina aliyense mu nyumba mwanu muno anabwereka chakudya kapena kudalira thandizo kuchokera kwa nzake kapena abale?**	*integer*

507. How many meals, including breakfast are taken by adults in your household in a typical day? **Kodi akuluakulu amadya kangati patsiku, kuphatikizapo kadzutsa, mnyumba mwanu muno?**	*integer*

508. How many meals, including breakfast are taken by children (5-17 years of age) in your household in a typical day? **Kodi ana azaka zapakati pa 5 ndi 17 madya kangati patsiku, kuphatikizapo kadzutsa, mnyumba mwanu muno?**	*integer*

509. How many meals, including breakfast are taken by children (6-59 months) in your household per day? **Kodi ana apakati pa miyezi 6 ndi 59 amadya kangati patsiku, kuphatikizapo kadzutsa, mnyumba mwanu muno?**	*integer*
Note: Leave blank if no children	

Hint: Under 5 children	

510. In the last 12 months, have you been faced with a situation when you did not have enough food to feed the household? **Pa miyezi khumi ndi iwiri (12) yapitayi, ilipo nthawi imene munalibe chakudya chokwanira kudyetsa banja lanuli?**	*select_one yes_no*
Yes	*1*
No	*0*

511. When did you experience this incidence in the last 12 months? **Linali liti zinachitika izi mu miyezi khumi ndi iwiri (yapitayi)?**	*select_multiple month_hunger*
August 2018	*2*
September 2018	*3*
November 2018	*4*
December 2018	*5*
January 2019	*6*
February 2019	*7*
March 2019	*8*
April 2019	*9*
May 2019	*10*
June 2019	*11*
July 2019	*12*
August 2019	*13*
September 2019	*14*

512. What was the cause of this situation? **Chinapangitsa kuchepa kwa chakudyachi ndi chani?**	*select_one foodinsec /* *text*
1st most important cause: **Chifukwa choyamba chenicheni chimene chinapangitsa kuchepa kwa chakudyachi ndi chani?**	*Inadequate household stock due to drought/poor rains*
	Inadequate household stock due to crop pest damage
	Inadequate household stocks due to small land size

	Inadequate household food stocks due to lack of farm inputs
	Food in the market was very expensive
	Unable to reach market due to high transportation costs
	No food in the market
	Floods/water logging
Specify other cause. **Nenani chifukwa chofunikira kwambiri chimene chinapangitsa kuchepa kwa chakudyachi**	*Other (specify)*
2nd most important cause: **Chifukwa chachiwiri chimene chinapangitsa kuchepa kwa chakudyachi ndi chani?**	*Inadequate household stock due to drought/poor rains*
	Inadequate household stock due to crop pest damage
	Inadequate household stocks due to small land size
	Inadequate household food stocks due to lack of farm inputs
	Food in the market was very expensive
	Unable to reach market due to high transportation costs
	No food in the market
	Floods/water logging
Specify other cause. **Nenani chifukwa chofunikira kwambiri chachiwiri chimene chinapangitsa kuchepa kwa chakudyachi**	*Other (specify)*
3rd most important cause: **Chifukwa chachitatu chimene chinapangitsa kuchepa kwa chakudyachi ndi chani?**	*Inadequate household stock due to drought/poor rains*
	Inadequate household stock due to crop pest damage
	Inadequate household stocks due to small land size
	Inadequate household food stocks due to lack of farm inputs
	Food in the market was very expensive
	Unable to reach market due to high transportation costs
	No food in the market
	Floods/water logging
Specify other cause. **Nenani chifukwa chofunikira kwambiri chachitatu chimene chinapangitsa kuchepa kwa chakudyachi**	*Other (specify)*

601. Over the past one week (7 days), did your household purchase or pay for any _____? **Pamasiku asanu ndi awiri (7) apitawa, kodi panyumba pano munagulako kapena munalipirako chilichonse pa izi _____ ?**	*select_multiple nonfood1*

Charcoal	*101*
Paraffin or kerosene	*102*
Cigarettes or other tobacco	*103*
Candles	*104*
Matches	*105*
Newspapers or magazines	*106*
Public transport-Bicycle taxi	*107*
Public transport Bus/minibus	*108*
Public transport-other(Truck, Oxcart, etc)	*109*
Note: Read all to the respondent, Select all that apply	

602. How much did you pay for _____ in total? **Mukaphatikiza zonse, munalipira ndalama zingati ya _____ ?**	*integer*

603. Over the past **one month**, did your household purchase or pay for any _____? **Mwezi wapitawu, kodi panyumba panu pano munagulako kapena munalipirako chilichonse pa izi _____ ?**	*select_multiple nonfood2*
Milling fees, grain	*201*
Bar soap (body soap or clothes soap)	*202*
Clothes soap (powder, paste)	*203*
Toothpaste, toothbrush	*204*
Toilet paper	*205*
Glycerine, vaseline, skin creams	*206*
Other personal products (shampoo, razor blades, cosmetics, hair products, etc)	*207*
Light bulbs	*208*
Postage stamps or other postal fees	*209*
Donation-to church, charity, beggar, etc	*210*
Petrol or diesel	*211*
Motor vehicle service, or parts	*212*
Bicycle repair, parts	*213*
Wages paid to servants	*214*
Mortgage-regular payment to purchase a house	*215*
Repairs and maintanance to dwelling	*216*
Repairs to household and personal items (radio, watches, etc-excluding battery)	*217*
Expenditure on pets	*218*
Batteries	*219*
Recharging cell phones	*220*

Airtime	*221*
Note: Read all to the respondent, Select all that apply	

604. How much did you pay for _____ in total? **Mukaphatikiza zonse, munalipira ndalama zingati ya _____ ?**	*integer*

605. Over the **three months**, did your household purchase or pay for any _____ ? **Mu miyezi itatu yapitayi, kodi panyumba panu pano munagulako kapena munalipirako chilichonse pa izi _____ ?**	*select_multiple nonfood3*
Infant clothing	*301*
Baby nappies/diapers	*302*
Boy's clothes (e.g. trousers, shirt, jacket, underwear)	*303*
Men's clothes (e.g. trousers, shirt, jacket, underwear)	*308*
Girl's clothes (e.g. blouse, skirt, dress, underwear)	*313*
Ladies' clothes (e.g. chitenje, blouse, skirt, dress, underwear)	*319*
Boy's shoes	*322*
Men's shoes	*323*
Girl's shoes	*324*
Lady's shoes	*325*
Cloth, thread, other sewing material	*326*
Laundry, dry cleaning, tailoring fees	*327*
Bowls, glassware, plates, silverware etc	*328*
Cooking utensils (cookpots, stiring spoons and whisks, etc)	*329*
Cleaning utensils (brooms, brushes, etc)	*330*
Torch/flashlight	*331*
Umbrella	*332*
Paraffin lamp (hurricane or pressure)	*333*
Stationery items (not for school)	*334*
Books (not for school)	*335*
Music or video cassette or CD/DVD	*336*
Tickets for sports /entertainment events	*337*
House decorations	*338*
Night's lodging in a resthouse or hotel	*339*
Note: Read all to the respondent, Select all that apply	

606. How much did you pay for _____ in total? **Mukaphatikiza zonse, munalipira ndalama zingati ya _____ ?**	*integer*

607. Over the past **12 months**, did your household purchase or pay for any _____ ? **Mu miyezi khumi ndi iwiri (12) yapitayi, kodi munagulako kapena munalipirako chilichonse pa izi _____ ?**	*select_multiple nonfood4*
Carpet, rugs, drapes	*401*
Linen-towels, sheets, blankets	*402*
Mat-sleeping or for drying maize flour	*403*
Mosquito net	*404*
Mattress	*405*
Sports and hobby equipment, musical instruments, toys	*406*
Film, film processing, camera	*407*
Cement	*408*
Bricks	*409*
Construction timber	*410*
Council rates	*411*
Insurance-health (MASM etc) auto, home, life	*412*
Losses to theft (value of items or cash)	*413*
Fines or legal fees	*414*
Lobola (bridewealth)	*415*
Marriage ceremony costs, household members	*416*
Marriage ceremony costs, non-household members	*421*
Funeral costs, household members	*417*
Funeral costs, nonhousehold members (relatives, neighbour/friends)	*418*
Woodpoles, bamboo	*419*
Grass for thatching roof or other use	*420*
Note: Read all to the respondent, Select all that apply	

608. How much did you pay for _____ in total? **Mukaphatikiza zonse, munalipira ndalama zingati ya _____ ?**	*integer*

609. What type of insurance did you pay for? **Longosolani mtundu wa inshuransi yomwe munalipira.**	*text*

Note: Next section asks about durable goods that the household owns and/ borrowed during the past 12 months. Gawo lino tikufusani za katundu amene mulinaye kapena amene munabwereka mu miyezi khumi ndi iwiri (12) yapitayi.

701. Does your household own… **Kodi pakhomo panu pano muli ndi…**	*select_multiple goods*
Mortar/pestle	*101*
Bed	*102*

Table	*103*
Chair	*104*
Fan	*105*
Air conditioner	*106*
Radio ('wireless')	*107*
Radio with flash drive/micro CD	*108*
Tape or CD/DVD player, HiFi	*109*
Television	*110*
VCR	*111*
Sewing machine	*112*
Kerosene/paraffin stove	*113*
Electric or gas stove; hot plate	*114*
Refrigerator	*115*
Washing machine	*116*
Bicycle	*117*
Motorcycle/scooter	*118*
Car	*119*
Mini-bus	*120*
Lorry	*121*
Beer-brewing drum	*122*
Upholstered chair, sofa set	*123*
Coffee table (for sitting room)	*124*
Cupboard, drawers, bureau	*125*
Lantern (parraffin)	*126*
Desk	*127*
Clock	*128*
Iron (pressing clothes)	*129*
Computer equipment & accessories	*130*
Satellite	*131*
Solar panel	*132*
Generator	*133*

702. How many _____ do you own? **Muli ndi** _____ **zingati?**	*integer*

703. What is the age of _____ ? **Kodi mwakhala ndi** _____ **kwa zaka zingati?**	*integer*
Note: If more than one, put average age.	

704. If you wanted to sell one of _____ today, how much would you receive? **Kodi mutafuna kugulitsa _____ lero, mungagulitse ndalama zingati?**	*integer*

801. Does your household own… **Kodi pakhomo panu pano muli ndi…**	*select_multiple farmassets*
Hand hoe	*601*
Slasher	*602*
Axe	*603*
Sprayer	*604*
Panga knife	*605*
Sickle	*606*
Tredle pump	*607*
Watering can	*608*
Ox-cart	*609*
Ox plough	*610*
Tractor	*611*
Tractor plough	*612*
Ridger	*613*
Cultivator	*614*
Motorized pump	*616*
Grain mill	*617*
Other machinery	*618*
Chicken house	*619*
Livestock kraal	*620*
Storage house	*621*
Granary	*622*
Barn	*623*
Pigsty	*624*

802. How many _____ does your household currently own? **Muli ndi _____ zingati?**	*integer*

803. Did your household buy any _____ during the past 12 months?	*select_one yes_no*
Yes	*1*
No	*0*

804. How many _____ did your household buy? **Munagula _____ zingati?**	*integer*

805. Did your household build any _____ during the past 12 months	*Select_one yes_no*
Yes	*1*
No	*0*

806. How many _____ did you household build during the past 12 months? **Munamanga ma _____ angati mu miyezi khumi ndi iwiri (12) yapitayi?**	*integer*

807. How much did it cost you to build _____ ? **Zinakwana ndalama zingati kuti mumange _____ ?**	*integer*

901. Over the past 12 months, has anyone in your household owned a non-agricultural business or provided a non-agricultural service from home or a household-owned shop, as a carwash owner, metal worker, mechanic, carpenter, tailor, barber, etc? **Pa miyezi khumi ndi iwiri (12) yapitayi, pali munthu wina aliyense pakhomo panu pano amene anapangako bizinezi ina iliyonse yosakhudzana ndi ulimi monga kutsuka magalimoto; zootchelera; kukonza magalimoto, kupala matabwa; utelala; kumeta tsitsi etc?**	*select_one yes_no*
Yes	*1*
No	*0*
Note: Please include household enterprises that have been shut down temporarily or permanently during the past 12 months	

902. Over the past 12 months has anyone in your household processed or sold any agricultural by-products, including flour, starch, juice, beer, jam, oil, seed, bran, etc excluding livestock by-products, fresh/processed fish? **Pa miyezi khumi ndi iwiri (12) yapitayi, pali munthu wina aliyense pakhomo panu pano amene anapangako ndi kugulitsa zinthu zochokera ku ulimi monga ufa; starichi; juwisi; mowa; jamu; mafuta; mbewu; madeya; etc, kupatula zinthu zochokera ku ziweto ndi nsomba?**	*select_one yes_no*
Yes	*1*
No	*0*

903. Over the past 12 months has anyone in your household operated a trading business on a street or in a market? **Pa miyezi khumi ndi iwiri (12) yapitayi, pali munthu wina aliyense pakhomo panu pano amene anakhalapo ndi bizinesi yomwe amagulitsa zinthu mmisewu kapena pa nsika?**	*select_one yes_no*
Yes	*1*
No	*0*

904. Over the past 12 months has anyone in your household offered any service or sold anything on a street or in a market, including firewood, home-made charcoal, curios, construction timber, woodpoles, traditional medicine, mats, bricks, cane furniture, weave baskets, thatch grass, etc.? **Pa miyezi khumi ndi iwiri (12) yapitayi, pali munthu wina aliyense pakhomo panu pano amene amagulitsa zinthu mmisewu kapena pa nsika, kuphatikizirapo nkhuni, makala, ziboliboli, matabwa, mapolo, mankhwala achikuda, mphasa, njerwa, mipando ya nsungwi, madengu, udzu, etc.?**	*select_one yes_no*
Yes	*1*
No	*0*

905. Over the past 12 months has anyone in your household owned a professional office or offered professional service from home as a doctor, accountant, lawyer, translator, private tutor, midwife, mason, etc.? **Pa miyezi khumi ndi iwiri (12) yapitayi, pali munthu wina aliyense pakhomo panu pano amene anali ndi bizinezi yake kapena amagwira ntchito ngati dokotala, accountant, lawyer, otanthauzira zilankhulo zosiyasiyana, mphunzitsi osati waboma,mzamba, omanga manyumba kapena zosemasema?**	*select_one yes_no*
Yes	*1*
No	*0*

906. Over the past 12 months has anyone in your household driven a household-owned taxi or pick-up truck to provide transportation or moving services? **Pa miyezi khumi ndi iwiri (12) yapitayi, pali munthu wina aliyense pakhomo panu pano amene amayendetsa taxi kapena lorry yapakhomo pano ngati bizinezi?**	*select_one yes_no*
Yes	*1*
No	*0*

907. Over the past 12 months has anyone in your household owned a bar or restaurant? **Pa miyezi khumi ndi iwiri (12) yapitayi, pali munthu wina aliyense pakhomo panu pano amene amapanga bizinezi ya malo ogulitsira mowa kapena malo ogulitsira chakudya?**	*select_one yes_no*
Yes	*1*
No	*0*

908. Over the past 12 months has anyone in your household owned any other non-agricultural business, even if it is a small business run from home or street? **Pa miyezi khumi ndi iwiri (12) yapitayi, pali munthu wina aliyense pakhomo panu pano amene amapanga bizinezi ina iliyonse yogulitsa zinthu zosakhudzana ndi ulimi, ngakhale bizinezi yaing'ono yopangira kunyumba or munsewu?**	*select_one yes_no*
Yes	*1*

No	*0*

909. Please provide details on the main product or service of enterprise _____ that your household operated. **Tandilongosoleleni kuti mu bizinezi ya _____ mumapanga chani kwenikweni**.	*text*

910. In which industry is this trade? **Kodi bizinezi imeneyi ili mgulu liti la ma bizinezi?**	*select_one industry_code*
industry_code	*1*
industry_code	*2*
industry_code	*3*
industry_code	*4*
industry_code	*5*
industry_code	*6*

911. Who in this family manages _____ or is most familiar with it? **Kodi pakhomo pano amene amayendetsa kapena amadziwa zambiri za bizinezi ya _____ ndi ndani?**	*select_multiple family*
Family list	

912. Who in this family owns _____ enterprise? **Kodi bizinezi ya _____ mwini wake ndi ndani pakhomo pano?**	*select_multiple family*
Family list	
Note: List up to two joint owners	

913. How many individuals outside of the household are co-owners of _____ ? **Ndi anthu angati amene siapakhomo panu pano amene ali nawo aeni ake a bizinezi ya _____ ?**	*integer*
Note: Record zero if none	

914. When was _____ enterprise first started? **Kodi bizinezi ya _____ inayamba liti?**	*Interger*
	select_one month
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*

September	*9*
October	*10*
November	*11*
December	*12*

915. What were the sources of capital for _____ enterprise? **Mpamba oyambira bizinezi ya _____ unachokera kuti?**	*select_multiple capital*
Own savings from agriculture	*1*
Own savings from non-agriculture	*2*
Sale of assets owned	*3*
Proceeds from another business	*4*
Agricultural input credit	*5*
Non-agricultural credit from bank or other institution	*6*
Loan from money lender	*7*
Loan from family/friend	*8*
Savings club	*9*
Gift from friends/family	*10*
Inherited	*11*
Other (specify)	*12*
Specify source of capital for _____ enterprise. **Longosolani komwe mpamba oyambira bizinezi ya _____ unachokera.**	*text*

916. In which months did you operate _____ business? **Ndi miyezi iti imene munayendetsa bizinezi ya _____ ?**	*select_multiple months*
	1
August 2018	*2*
September 2018	*3*
November 2018	*4*
December 2018	*5*
January 2019	*6*
February 2019	*7*
March 2019	*8*
April 2019	*9*
May 2019	*10*
June 2019	*11*
July 2019	*12*
August 2019	*12*

917. During the last month of operation, which household members worked in _____ business? **Ndi ndani wa mnyumba mwanu muno amene anagwira ntchito mu bizinezi ya _____ mwezi umene munamaliza kupanga bizinezi?**	*select_multiple family*
Family list	

918. During the last month of operation, how many days did ___(member)___ work in ___(enterprise)___business? **Mu mwezi omaliza umene munapanga bizinezi ya _____ mu miyezi khumi ndi iwiri (12) yapitayi, kodi _____ anagwira ntchito masiku angati?**	*integer*

919. During those days, how many hours did ___(member)___ work in ___(enterprise)____ business? **Mumasiku amenewo, kodi _____ amagwira ntchito maola angati pa tsiku mu bizinezi yo _____ ?**	*integer*

920. During the last month of operation, did any non-household members work in _____ business? **Mu mwezi omaliza umene munapanga bizinezi ya _____ , kodi anthu akuti siapakhomo panu anagwira nawo ntchito mu bizineziyi?**	*select_one yes_no*
Yes	*1*
No	*0*

921. During the last month of operation, how many non-household members worked in _____ business? **Mu mwezi omaliza umene munapanga bizinezi ya _____, kodi azibambo akuti siapakhomo panu amene anagwira nawo ntchito mu bizineziyi analipo angati?**	*integer*

922. During the last month of operation, how many days did a typical non-household member work in _____ business? **Mu mwezi omaliza umene munapanga bizinezi ya _____ , kodi ndi masiku angati amene munthu yemwe siwapakhomo pano anagwira nawo ntchito mu bizineziyi?**	*integer*

923. During those days, how many hours did a typical non-household member work in _____ business? **Mumasiku amenewo, kodi munthu oti siwapakhomo pano amagwira ntchito mu bizinezi ya _____ kwa maola angati patsiku?**	*integer*

1001. During the last 12 months, did you or any member of your household receive any… **Mumiyezi 12 yadutsayi, inu kapena wina wapakhomo lanu analandila...**	*select_multiple other_incomes*
Cash transfers/gifts from individuals (friends/relatives)	*1*
Food transfers/gifts from individuals (friends/relatives)	*2*
Non-food transfers/gifts from individuals (friends/relatives)	*3*

Savings, interest or other investment incomes	*4*
Pension income	*5*
Income from non-agricultural land rental	*6*
Income from apartment, house rental	*7*
Income from shop, store rental	*8*
Income from car, truck, other vehicle rental	*9*
Income from real estate sales	*10*
Income from household non-agriculture asset sales	*11*
Income from household agriculture/fishing asset sales	*12*
Inheritance	*13*
Lottery/gambling winnings	*14*
Other income (specify)	*15*

1002. How much _____ did your household receive during the last 12 months? **Kodi pakhomo pano munalandira _____ ochuluka bwanji mumiyezi 12 yadutsayi?**	*integerl*

1101. During the last 12 months, did you or any member of your household give away the following items to individuals (friends/family) outside your household? **Mumiyezi 12 yadutsayi, kodi inu kapena wina aliyense wapakhomo pano anapeleka zinthu izi kwa anthu (anzake/aku banja) omwe sakhala pa khomo lino ?**	*select_multiple gifts*
Cash transfers/gifts	*1*
Food transfers/gifts	*2*
Non-food transfers/gifts	*3*
Did not give out any gift	*4*
Note: Please read the whole list to the respondent. Do not include gifts given for weddings, ceremonies or funerals.	

1102. How much of _____ was given out in total? **Ndi _____ zochuluka bwanji zimene munagawa?**	*integer*
Note: in Malawi Kwacha	

1201. In the last 12 months, has any member of your household received any cash, food or aid from these programs? **Mumiyezi 12 yadutsayi, kodi pali munthu wina aliyense pa banja pano amene walandilako thandizo la ndalama kapena chakudya kuchokela ma program awa?**	*select_multiple ssn*
Free maize	*1*
Free food (other than maize)	*2*
MASAF Public Works Program	*3*
Food For Assets (WFP Public Works Program)	*4*

Other Public Works Program (food/cash-for-work)	*5*
Inputs-for-work Program	*6*
School feeding program	*7*
Free distribution of Likuni Phala to children and women (Targeted Nutrition Program - TNP)	*8*
Supplementary feeding of malnourished children at a Nutrition Rehabilitation Unit	*9*
Scholarships/bursaries for secondary education (e.g. CRECCOM)	*10*
Scholarships/bursaries for tertiary education (e.g. university scholarship, upgrading teachers, tertiary loan scheme)	*11*
Direct cash transfer from Government of Malawi (SCTP)	*12*
Direct cash transfer from others (Development partners, NGOs)	*13*
Other program	*14*

1202. Specify _____ **Nenani** _____	*text*

1203. Was this _____ part of MVAC (Malawi Vulnerability Assessment Committee)? **Kodi** _____ **inali mbali ya MVAC?**	*select_one ynd*
Yes	*1*
No	*0*
Don't know	*9*

1204. Who did the _____ come from? **Kodi** _____**inachokera kwa ndani?**	*select_one donor*
Concern Worldwide (CWW)	*1*
Goal	*2*
United Purpose	*3*
Pump Aid	*4*
World Food Programme (WFP)	*5*
Unicef	*6*
Government of Malawi	*7*
Other organisation	*8*
Don’t know	*9*
1204. Specify_____ **Nenani**_____	*text*

1205. In the last 12 months, what was the total cash assistance received from _____ ? **Mumiyezi 12 yadutsayi, mwalandila chithandizo cha ndalama zingati ku chokela ku _____ ?**	*integer*
Note: in Malawi Kwacha	

1206. In the last 12 months, what was the total value of in-kind assistance received from _____ ? **Mumiyezi 12 yadutsayi, chithandizo chomwe mwalandila chomwe si chandalama chokela ku _____ chingakwane ndalama zingati?**	*integer*
Note: Estimate cash value in Malawi Kwacha	

1207. In the last 12 months, what was the total maize assistance received from _____ ? **Mumiyezi 12 yadutsayi, mwalandila chithandizo cha chimanga chochuluka bwanji ku chokela ku _____ ?**	*decimal*
Note: In Kilogram	

1208. During the last year, in which months did your household receive assistance from _____ ? **Mu chaka chapitachi, ndi miyezi iti imene pakhomo panu pano munalandira chithandizo kuchokera ku _____ ?**	*select_multiple months*
August 2018	*2*
September 2018	*3*
November 2018	*4*
December 2018	*5*
January 2019	*6*
February 2019	*7*
March 2019	*8*
April 2019	*9*
May 2019	*10*
June 2019	*11*
July 2019	*12*
August 2019 September 2019	*12*
Note: Number of months	

1301. Over the past 12 months, did you or anyone in your household get credit from someone outside your household or from an institution, receiving cash or goods? **Mumiyezi 12 yadutsayi, kodi inu kapena wina aliyense wamunyumba yanu anatenga ngongole ya ndalama kapena zinthu zosakhala ndalama kwa munthu wina kapena ku mabungwe?**	*select_one yes_no*
Yes	*1*
No	*0*
Note: Help the respondent recall all the loans the household got during the last 12 months. Record the number of loans in the next question	

1302. How many loans did the household obtain during the past 12 months? **Nyumba yanu inatenga ngongole zingati mumiyezi 12 yadutsayi?**	*integer*

1303. What are the names of persons or institutions from whom you or anyone in your household got credit money for consumption, business or farming over the past 12 months? **Mayina a anthu kapena mabungwe amene inu kapena wina wamu nyumba yanu anabweleka ndalama mumiyezi 12 yadutsayi ndi chani?**	*text*

1304. Code source of loan. **Ngongole munaitenga kuti**	*select_one loan_source*
Relative	*1*
Neighbour	*2*
Grocery/local merchant	*3*
Money lender (Katapila)	*4*
Employer	*5*
Religious institution	*6*
MARDEF	*7*
MRFC	*8*
SACCO	*9*
Bank (commercial)	*10*
NGO	*11*
Village bank	*12*
Other (specify)	*13*
Specify code source. **Nenani komwe mwayitenga ngongoleyi.**	*text*

1305. Which family members were responsible for the loan? **Ngongoleyi anatenga ndi ndani pakhomo panu pano?**	*select_multiple family*
Family list	

1306. What was the main reason for obtaining the loan? **Chifukwa chachikulu chimene munatengera ngogoleyi chinali chani?**	*select_one loan_purpose*
Purchase land	*1*
Purchase agricultural inputs for food crop	*2*
Purchase inputs for tobacco	*3*
Purchase inputs for other cash crops	*4*
Business start-up capital	*5*
Purchase of non-farm inputs	*6*
Consumption	*7*
Other (specify)	*8*
Specify the reason for obtaining the loan. **Nenani chifukwa chotengela ngongole**	*text*

1307. How much was borrowed? **Munabweleka ndalama zochuluka bwanji?**	*integer*

1308. When did you get the loan within the past 12 months? **Munatenga ngongoleyi liti?**	*select_one month_hunger*

1309. Is the loan repaid? **Munamaliza kubweza ngongoleyi?**	*select_one yes_no*
Yes	*1*
No	*0*

1310. Approximately when do you expect to pay back the money? **Mukuganiza kuti mumaliza kulipila ngongoleyi liti?**	*integer*
	select_one month
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*

1311. How much did you pay (do you expect to have paid? In total when you (will have) paid off this loan (interest + principal)? **Kodi munalipira (kapena mukuyembekeza kulipira) ndalama zingati pamodzi (kuphatikiza ngongole ndi chiongola dzanja)?**	*integer*

1312. During the last 12 months, did you try to borrow from an institution or from someone outside your household and you were turned down? **Mumiyezi 12 yadutsayi, munayesela kubweleka ngongole kwa munthu osati wamubanja lanu kapena kumabungwe koma anakana kukukongozani?**	*select_one yes_no*
Yes	*1*
No	*0*

1313. Who turned you down? **Anakana ku kukukongazani ndi ndani?**	*select_multiple loan_source*

Relative	*1*
Neighbour	*2*
Grocery/local merchant	*3*
Money lender (Katapila)	*4*
Employer	*5*
Religious institution	*6*
MARDEF	*7*
SACCO	*9*
Bank (commercial)	*10*
NGO	*11*
Village bank	*12*
Other (specify)	*13*
Specify who turned you down. **Nenani amene anakana ku kukukongozani**	*text*

1314. Why did you not attempt to borrow in the past 12 months? **Ndi chifukwa chiyani simunayesele kubweleka ngongole mumiyezi 12 yadutsayi?**	*select_multiple no_loan*
No need	*1*
Believed would be refused	*2*
Too expensive	*3*
Too much trouble for what it is worth	*4*
Inadequate collateral	*5*
Do not like to be in debt	*6*
Do not know any lender	*7*
Other (specify)	*8*
Specify other reason you did not attempt to borrow. **Nenani chifukwa china chomwe sumunayesele kubwelekela ndalama mumiyezi 12 yadutsayi?**	*text*

1401. Concerning your household's food consumption over the past month, which one of the following is true? **Ndi chiti mwa zinthu izi chimene chili choona kukhudza madyedwe achakudya mu banja lanu mu mwezi wadutsawu?**	*select_one subjective*
It was less than adequate for household needs. **Osakwanira mmene zimafunikira pakhomo pano**	*1*
It was just adequate for household needs. **Kungokwanira ndendende mmene zimafunikira pakhomo pano**	*2*
It was more than adequate for household needs. **Zambiri kuposa mmene zimafunikira pakhomo pano**	*3*
Note: Adequate means no less or no more than what the respondent considers to be the minimum consumption needs of the household	

1402. Concerning your household's housing, which one of the following is true? **Ndi chiti mwa zinthu izi chimene chili choona kukhudza nyumba imene mumakhalamoyi?**	*select_one subjective*
It was less than adequate for household needs. **Osakwanira mmene zimafunikira pakhomo pano**	*1*
It was just adequate for household needs. **Kungokwanira ndendende mmene zimafunikira pakhomo pano**	*2*
It was more than adequate for household needs. **Zambiri kuposa mmene zimafunikira pakhomo pano**	*3*
Note: Adequate means no less or no more than what the respondent considers to be the minimum consumption needs of the household	

1403. Concerning your household's clothing, which one of the following is true? **Ndi chiti mwa zinthu izi chimene chili choona kukhudza mavalidwe mu banja lanu lino?**	*select_one subjective*
It was less than adequate for household needs. **Osakwanira mmene zimafunikira pakhomo pano**	*1*
It was just adequate for household needs. **Kungokwanira ndendende mmene zimafunikira pakhomo pano**	*2*
It was more than adequate for household needs. **Zambiri kuposa mmene zimafunikira pakhomo pano**	*3*
Note: Adequate means no less or no more than what the respondent considers to be the minimum consumption needs of the household	

1404. Concerning the standard of health care you receive for your household members, which one of the following is true? **Ndi chiti mwa zinthu izi chimene chili choona kukhudzana ndi thandizo la zachipatala ndi umoyo limene anthu apabanja pano amalandira?**	*select_one subjective*
It was less than adequate for household needs. **Osakwanira mmene zimafunikira pakhomo pano**	*1*
It was just adequate for household needs. **Kungokwanira ndendende mmene zimafunikira pakhomo pano**	*2*
It was more than adequate for household needs. **Zambiri kuposa mmene zimafunikira pakhomo pano**	*3*

Note: Imagine six steps, where on the bottom, the first step, stand the poorest people, and on the highest step, the sixth, stand the rich

1405. On which step are you today? **Kodi inu mungati muli popondera panambala chani pa makwererowa lero?**	*integer*

1406. On which step are most of your neighbours today? **Nanga anthu oyandikana nanu nyumba mungati ambiri ali popondera panambala chani pa makwererowa lero?**	*integer*

1407. On which step are most of your friends today? **Nanga anzanu ambiri mungati ali popondera panambala chani pa makwererowa lero?**	*integer*

1408. Which one of the following is true? Your current income… Ndi **chiti mwa izi chili choona chokhudza ndalama zimene mumapeza?**	*select_one current_income*
Allows you to build your savings. **Zokwanira kuti mpaka kusungapo zina**	*1*
Allows you to just save a little. **Zongokwanira kusungapo pang'ono pokha**	*2*
Only just meets your expenses. **Zongokwanira ndendende kugulira zinthu zofunikira pakhomo pano**	*3*
Is not adequate so you need to use savings to meet expenses. **Zosakwanira, timatengakoso ku ndalama zimene tinasunga**	*4*
Is not really sufficient, so you need to borrow to meet expenses. **Zosakwanira, timakongolaso ndalama ndi zinthu zina kuti tikwanitse kugula zinthu zofunikira pakhomo**	*5*
Note: Read the responses	

1409. During the last 12 months, was there a time when you or others in your household worried about not having enough food to eat because of a lack of money or other resources? **Mumiyezi 12 yadutsayi, kodi panali nthawi imene inu kapena munthu wina aliyense pa nyumba panu pano anadandaula kuti chakudya chilipo chosakwana chifukwa chakusowa kwa ndalama kapena chipangizo zina?**	select_one yn
Yes	*1*
No	*0*
Don't know	*9*

1410. During the last 12 months, was there a time when you or others in your household were unable to eat healthy and nutritious food because of lack of money or other resources? **Mumiyezi 12 yadutsayi, panali nthawi yomwe inu kapena wina wam'banja lanu analephela kudya zokudya za thanzi chifukwa ndalama kapena zipangizo zina kunalibe?**	select_one yn
Yes	*1*
No	*0*
Don't know	*9*

1411. During the last 12 months, was there a time when you or others in your household ate only few kinds of food because of lack of money or other resources? **Mumiyezi 12 yadutsayi, panali nthawi yomwe inu kapena wina wam'banja lanu anadya zokudya za mitundu yochepa chifukwa ndalama kapena zipangizo zina kunalibe?**	*select_one yn*
Yes	*1*
No	*2*
Don't know	*3*
Refuse	*4*

1412. During the last 12 months, was there a time when you or others in your household had to skip a meal because of lack of money or other resources to get food? **Mumiyezi 12 yadutsayi, panali nthawi yomwe inu kapena wina wam'banja lanu anaphonya kudya chifukwa ndalama kapena zipangizo kunalibe?**	*select_one yn*
Yes	*1*
No	*2*
Don't know	*3*

Refuse	*4*

1413. During the last 12 months, was there a time when you or others in your household ate less than what you thought you should because of lack of money or other resources? **Mumiyezi 12 yadutsayi, panali nthawi yomwe inu kapena wina wam'banja lanu anadya mochepa kwambili chifukwa ndalama kapena zipangizo zina kunalibe?**	*select_one yn*
Yes	*1*
No	*2*
Don't know	*3*
Refuse	*4*

1414. During the last 12 months, was there a time when you or others in your household ran out of food because of lack of money or other resources? **Mumiyezi 12 yadutsayi, panali nthawi yomwe zakudya zinathela inu kapena wina wam'banja lanu chifukwa ndalama kapena zipangizo zina kunalibe?**	*select_one yn*
Yes	*1*
No	*2*
Don't know	*3*
Refuse	*4*

1415. During the last 12 months, was there a time when you or others in your household were hungry but did not eat because of there was not enough money or other resources for food? **Mumiyezi 12 yadutsayi, panali nthawi yomwe inu kapena wina wam'banja lanu anali ndi njala koma sanadye chifukwa ndalama kapena zipangizo zina kunalibe?**	*select_one yn*
Yes	*1*
No	*2*
Don't know	*3*
Refuse	*4*

1416. During the last 12 months, was there a time when you or others in your household went without eating for a day because of lack of money or other resources? **Mumiyezi 12 yadutsayi, panali nthawi yomwe tsiku latunthu linadutsa inu kapena wina wam'banja lanu osadya chifukwa ndalama kapena zipangizo zina kunalibe?**	*select_one yn*
Yes	*1*
No	*2*
Don't know	*3*
Refuse	*4*

1501. During the last five years, was your household affected negatively by any of the following? **Mu zaka zisanu zadutsazi, banja lanu linakhudzidwa munjira yosayenekela ndi zinthu izi?**	*select_multiple shocks*
Drought	*1*
Irregular rains	*2*
Floods	*3*
Landslides	*4*
Earthquakes	*5*
Wind	*6*
Unusually high level of crop pests or diseases	*7*
Unusually high level of livestock diseases	*8*
Unusually low prices for agricultural output	*9*
Unusually high costs of agricultural inputs	*10*
Unusually high prices of food	*11*
End of regular assistance/aid/remittances from outside households	*12*
Reduction in the earnings from household (non-agricultural) business (not due to illness or accident)	*13*
Household (non-agricultural) business failure (not due to illness or accident)	*14*
Reduction in the earnings from salaried household member(s) (not due to illness or accident)	*15*
Loss of employment of previously salaried household member(s) (not due to illness or accident)	*16*
Serious illness or accident of household member(s)	*17*
Birth in the household	*18*
Death of income earner(s)	*19*
Break-up of household (kupasuka kwa banja)	*20*
Theft of money/valuables/assets/agricultural output	*21*
Conflict/violence	*22*
Fire damage to house	*23*
Social problems	*24*
Other (Specify)	*25*
None	*0*
Specify other shock. **Nenani zina**	*text*

1502. How many times did this _____ occur in this household in the last five years? _____ **inachitika kangati pa banja lanuli muzaka zisanu zadutsazi?**	*integer*
Note: Number of occurences	

1503. When was the last time this _____ happened? **Kodi _____ inachitika komaliza liti?**	*select_one myear*
2014	*2014*
2015	*2015*
2016	*2016*
2017	*2017*
2018	*2018*
2019	*2019*
	select_one month
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*
Month	*select_one month*

1504. Which of the shocks you experienced in the last twelve months was the most severe? **Pa zinthu zochitika mwadzidzidzi zimene zinakukhudzani mosayenela mu miyezi 12 yadutsayi, ndi ngozi iti imene inali yaikulu kwambiri kuposa zonse?**	*select_one shocks*
List of shocks	

1505. Which of the shocks you experienced in the last twelve months was the second most severe? **Pa zinthu zochitika mwadzidzidzi zimene zinakukhudzani mosayenela mu miyezi 12 yadutsayi, ndi ngozi iti imene ndiyachiwiri kwa ngozi yaikulu kwambiri?**	*select_one shocks*
List of shocks	

1506. Which of the shocks you experienced in the last twelve months was the third most severe? **Pa zinthu zochitika mwadzidzidzi zimene zinakukhudzani mosayenela mu miyezi 12 yadutsayi, ndi ngozi iti imene ndiyachitatu kwa ngozi yaikulu kwambiri?**	*select_one shocks*
List of shocks	

1507. As a result of _____, did your income. **Chifukwa cha _____ , ndalama zimene mumapeza.**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*

1508. As a result of _____ , did your assets. **Chifukwa cha _____ , katundu wanu**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*

1509. As a result of _____ , did your food production. **Chifukwa cha _____ , chakudya chimene munakolola**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*

1510. As a result of _____ , did your food stocks. **Chifukwa cha _____ , chakudya chimene munasunga**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*

1511. As a result of _____ , did your income. **Chifukwa cha _____ , ndalama zimene mumapeza**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*

1512. As a result of _____ , did your assets. **Chifukwa cha _____ , katundu wanu**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*

1513. As a result of _____ , did your food production. **Chifukwa cha _____ , chakudya chimene munakolola**	*select_one shock_effect*
Increase	*1*
Decrease	*2*

Did not change	*3*

1514. As a result of _____ , did your foodstocks. **Chifukwa cha _____ , chakudya chimene munasunga**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*

1515. As a result of _____ , did your income. **Chifukwa cha _____ , ndalama zimene mumapeza**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*
1516. As a result of _____ , did your assets. **Chifukwa cha _____ , katundu wanu**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*
1517. As a result of _____ , did your food production. **Chifukwa cha _____ , chakudya chimene munakolola**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*

1518. As a result of _____ , did your foodstocks. **Chifukwa cha _____ , chakudya chimene munasunga**	*select_one shock_effect*
Increase	*1*
Decrease	*2*
Did not change	*3*
Strong	*4*

1519. Overall, are you better/same/worse off than last month? **Mukafanizira mwezi uno ndi mwezi watha, mungati moyo pakhomo panu mwezi uno uli bwino ko, chimodzimodzi , kapena walowa pansi?**	*select_one wellbeing*
Better	*1*
Same	*2*
Worse off	*3*

1520. Over the last 30 days, did you experience any shocks or stresses? **Masiku 30 adutsawa, munali ndi ngozi yadzidzidzi iliyonse?**	*select_one yes_no*
Yes	*1*
No	*0*

1521. Which shocks did you experience last month? **Kodi munakumana ndi ngozi zanji?**	*seleclt_multiple shocks*
Drought	*1*
Irregular rains	*2*
Floods	*3*
Landslides	*4*
Earthquakes	*5*
Wind	*6*
Unusually high level of crop pests or diseases	*7*
Unusually high level of livestock diseases	*8*
Unusually low prices for agricultural output	*9*
Unusually high costs of agricultural inputs	*10*
Unusually high prices of food	*11*
End of regular assistance/aid/remittances from outside households	*12*
Reduction in the earnings from household (non-agricultural) business (not due to illness or accident)	*13*
Household (non-agricultural) business failure (not due to illness or accident)	*14*
Reduction in the earnings from salaried household member(s) (not due to illness or accident)	*15*
Loss of employment of previously salaried household member(s) (not due to illness or accident)	*16*
Serious illness or accident of household member(s)	*17*
Birth in the household	*18*
Death of income earner(s)	*19*
Break-up of household (kupasuka kwa banja)	*20*
Theft of money/valuables/assets/agricultural output	*21*
Conflict/violence	*22*
Fire damage to house	*23*
Social problems	*24*
Other (Specify)	*25*
None	*0*

Specify other shock. **Nenani zina**	*text*

1522. What was the impact of _____ to your household? _____ **yakhudza banja lanu bwanji?**	*select_one impact*
None	*1*
Slight	*2*
Moderate	*3*
Strong	*4*

1523. To what extent have you been able to recover from _____ ? **Mwakwanitsa bwanji kubwerera mmene munalili pasanachitike ngozi _____ ?**	*select_one recovery*
Not recovered at all	*1*
Somewhat recovered	*2*
Completely recovered	*3*
Recovered and better than before	*4*

1524. Overall, which aspect or aspects of your life have been affected by _____ ? **Ndi mbali ziti za moyo wanu zimene zinakhudzidwa ndi _____ ?**	*select_multiple aspects*
Livelihoods	*1*
Food security	*2*
Financial	*3*
Personal safety	*4*
Health	*5*
Other	*6*
Specify other. **Nenani njira ina**	*text*

1525. In the past 30 days, how many days did you or any household member not have enough food or money to buy food? **Mumasiku 30 adutsawa, ndi masiku angati omwe inu kapena wina wamubanja lanu analibe chokudya chokwanila kapena ndalama zogulila chokudya?**	*integer*

1526. In the past 30 days, how many days did you or any household member go to sleep at night hungry because there was not enough food? **Mumasiku 30 adutsawa, ndi masiku angati omwe inu kapena wina wamubanja lanu wagona ndi njala chifukwa kunalibe chokudya chokwanila?**	*integer*

1527. In the past 30 days how many days did you or any household member go a whole day and night without eating anything because there was not enough food? **Mumasiku 30 adutsawa, ndi masiku angati omwe inu kapena wina wamubanja lanu wapita usana ndi usiku osadya china chilichonse chifukwa kunalible chokudya chokwanila?**	*integer*

1528. In the past 7 days, how often has your household had to rely on less preferred and less expensive foods? **Mumasiku 7 adutsawa, banja lanu ladalila zakudya zimene simumazikonda kapena zotchipa mtengo kangati?**	*integer*

1529. In the past 7 days, how often has your household had to borrow food, or rely on help from a friend or relative? **Mumasiku 7 adutsawa, banja lanu labweleka chakudya kapena ladalila chithandizo chochokela kwa abale kangati?**	*integer*

1530. In the past 7 days, how often has your household had to rely on piece work? **Mumasiku 7 adutsawa, banja lanu ladalila ganyu kangati?**	*integer*

1531. In the past 7 days, how often has your household had to send children out to beg? **Mumasiku 7 adutsawa, banja lanu linatumiza ana kukapemphetsa kangati?**	*integer*

1532. In the past 7 days, how often has your household had to reduce number of meals eaten in a day? **Mumasiku 7 adutsawa, banja lanu lachepetsa nambala ya nthawi zimene mumudya kangati?**	*integer*

1533. In the past 7 days, how often has your household had to reduce size of meals eaten in a day? **Mumasiku 7 adutsawa, banja lanu lachepetsa kuchuluka kwa chakudya chimene mumadya kangati?**	*integer*

1534. Have you purchased any large assets (>10,000 Kwacha) over the last month? **Mu mwezi wadutsawu, mwagula katundu wina aliyense wamkulu (oposera 10,000 Kwacha)?**	*select_one purchases*
Yes	*1*
No	*2*
Don't know	*3*
Don't want to answer	*4*

1535. Total value of large assets purchased? **Katundu mukulumukulu amene mwagula pamodzi anakwana ndalama zingati mukaphatikiza?**	*decimal*

1536. Have you sold any large assets (>10,000 Kwacha) over the past 30 days? **Masiku 30 adutsawa, mwagulitsako katundu wina aliyense wamkulu (oposera 10,000 Kwacha)?**	*select_one purchases*
Yes	*1*

No	*2*
Don't know	*3*
Don't want to answer	*4*

1537. Total value of large assets sold? **Katundu mukulumukulu amene mwagulitsa pamodzi anakwana ndalama zingati mukaphatikiza?**	*integer*

1538. Have you gifted any large assets (>10,000 Kwacha) over the past 30 days? **Masiku 30 adutsawa, mwagawako ngati mphatso katundu wina aliyense wamkulu (oposera 10,000 Kwacha)?**	*select_one purchases*
Yes	*1*
No	*2*
don't know	*3*
don't want to answer	*4*

1539. Total value of large assets gifted? **Katundu mukulumukulu amene mwagawa ngati mphatso pamodzi anakwana ndalama zingati mukaphatikiza?**	*integer*

1540. Have you received any large assets (>10,000 Kwacha) over the past 30 days? **Masiku 30 adutsawa, mwalandirako ngati mphatso katundu wina aliyense wamkulu (oposera 10,000 Kwacha)?**	*select_one purchases*
Yes	*1*
No	*2*
don't know	*3*
don't want to answer	*4*

1541. Total value of large assets received? **Katundu mukulumukulu amene mwalandira ngati mphatso pamodzi anakwana ndalama zingati mukaphatikiza?**	*integer*

1542. Did you have any other large expenditures (>10,000 Kwacha) in the past 30 days? (e.g., medical & school fees). **Masiku 30 adutsawa, munagwitsa ntchito ndalama zambiri (zoposera 10,000 Kwacha)? (mwachitsanzo kulipira sukulu fizi ya ana, kuchipatala)**	*select_one purchases*
Yes	*1*
No	*2*
don't know	*3*
don't want to answer	*4*

1543. Total value. **Mukaphatikiza zinakwana ndalama zingati pamodzi?**	*integer*

1544. What forms of assistance have you received over the last month? M**wezi wathau mwalandila chithandizo chanji?**	*select_multiple assistance*
Food	*1*
Cash	*2*
Education/training	*3*
Employment	*4*
Other	*5*
None	*6*
Specify other. **Nenani njila ina**	*text*

1545. Did you receive _____ from any of the following over the last month? **Mumwezi wathau mwalandila chithandizo cha _____ .**	*select_multiple assistant*
Family	*1*
Community (Non-family)	*2*
Government	*3*

1546. When you look ahead to one month from now, do you think you will be? **Mukayang'ana mwezi umodzi kutsogolo, mukuganiza kuti moyo wanu mukhala bwanji?**	*select_one wellbeing*
Better	*1*
Same	*2*
Worse off	*3*

1601. Did the household experience any of these positive events in the last five years? **Mu zaka zisanu zadutsazi, kodi zinthu izi zachitikako pa banja lanu?**	*select_multiple pstv_event*
New regular job for household member	*1*
Young person or child works for the first time	*2*
New or increased remittances	*3*
Inheritance	*4*
Large gift/lottery winnings	*5*
Receipt of lobola	*6*
Gain from business activities	*7*
Scholarship for child's education	*8*
New NGO IGA starts	*9*
Other (specify)	*10*
None	*0*
Specify other positive event	*text*
Note: Read all. Select all that apply	

1602. When was the last time _____ happened? **Kodi _____ inachitika komaliza liti?**	*select_one myear*
2014	*2014*
2015	*2015*
2016	*2016*
2017	*2017*
2018	*2018*
2019	*2019*
	select_one month
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*
Don't know	*99*

1603. The last time _____ happened, what was the total value of items received? **Nthawi yomaliza yomwe _____ ina chitika, munalandila zinthu za ndalama zingati?**	*integer*

1604. Which of these events was the most important one? **Chinthu choyamba chabwino chimene chinapangika mosayembekezereka**	*select_one pstv_event*
New regular job for household member	*1*
Young person or child works for the first time	*2*
New or increased remittances	*3*
Inheritance	*4*
Large gift/lottery winnings	*5*
Receipt of lobola	*6*
Gain from business activities	*7*
Scholarship for child’s education	*8*

New NGO IGA starts	*9*
Other (specify)	*10*
None	*0*

1605. Which of these events was the second most important one? **Chinthu chachiwiri chabwino chimene chinapangika mosayembekezereka**	*select_one pstv_event*
New regular job for household member	*1*
Young person or child works for the first time	*2*
New or increased remittances	*3*
Inheritance	*4*
Large gift/lottery winnings	*5*
Receipt of lobola	*6*
Gain from business activities	*7*
Scholarship for child's education	*8*
New NGO IGA starts	*9*
Other (specify)	*10*
None	*0*

1606. Which of these events was the third most important one? **Chinthu chachitatu chabwino chimene chinapangika mosayembekezereka**	*select_one pstv_event*
New regular job for household member	*1*
Young person or child works for the first time	*2*
New or increased remittances	*3*
Inheritance	*4*
Large gift/lottery winnings	*5*
Receipt of lobola	*6*
Gain from business activities	*7*
Scholarship for child's education	*8*
New NGO IGA starts	*9*
Other (specify)	*10*
None	*0*

1901. •Please tell me, in general, how willing or unwilling you are to take risks, using a scale from 0 to 10, where 0 means you are "completely unwilling to take risks" and 10 means you are "very willing to take risks." •You can also use any number between 0 and 10 to indicate where you fall on the scale, using 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10.**•Chonde tandifotokozeleni mosasankha, mmene mulili ofuna kapena osafuna kutenga ukandifere, pogwiritsa ntchito muyeso umene ukuyambira 0 kufikira 10, mmene 0 akutanthauza"Sindikufuna kotheratu kutenga ukandifere" ndipo 10 akutanthauza "ndikufuna kotheratu kutenga ukandifere".** **•Mungathe kugwiritsa ntchito nambala iliyonse pakati pa 0 ndi 10 pofuna kusonyeza mbali yomwe inu muli pa muyesowu, gwiritsani 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10**	*select_one likert*
Note: •Record 98 if don't know •Record 99 if they refuse to answer	

Note: •We now ask you for your willingness to act in a certain way. •Please again indicate your answer on a scale from 0 to 10. •A 0 means "completely unwilling to do so," and a 10 means "very willing to do so." •You can also use any number between 0 and 10 to indicate where you fall on the scale, using 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10. **•Tsopano tikufunsani zokhudza kufuna kwanu kuchita chinthu mu njira ina yake.** **•Chonde kawirinso sonyezani yankho lanu pogwiritsa ntchito muyeso umene ukuyambira 0 kufikira 10.** **• mmene 0 akutanthauza"Sindikufuna kotheratu kuchita choncho" ndipo 10 akutanthauza "ndikufuna kotheratu kuchita choncho".** **•Mungathenso kugwiritsa ntchito nambala iliyonse pakati pa 0 ndi 10 pofuna kusonyeza mbali yomwe inu muli pa muyesowu, gwiritsani 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10**

1902. How willing are you to give up something that is beneficial for you today in order to benefit more from that in the future? **Kodi ndinu wokonzeka bwanji kugonja ndi kuchipereka chinthu chimene chili chaphindu kwa inu lero kuti muzapeze phindu lochuluka kuchokera kuchinthucho mtsogolo?**	*select_one likert*
Note: •Record 99 if they don't know or not applicable	

Note: •How well does each of the following statements describe you as a person? •Please indicate your answer on a scale from 0 to 10. A 0 means "does not describe me at all," and a 10 means "describes me perfectly." **•Kodi ziganizo zotsatira zikufotokoza bwino bwanji zokhudza inu ngati munthu?** **•Chonde sonyezani yankho lanu pogwiritsa ntchito muyeso umene ukuyambira 0 kufikira 10, mmene 0 akutanthauza"sakufotokoza zokhudza ine mpang'ono pomwe" ndipo 10 akutanthauza "akufotokoza zokhudza ine bwino lomwe".**

1903. I assume that people have only the best intentions. **Ndikuganiza kuti anthu amakhala ndi zolinga zabwino zokhazokha.**	*select_one likert*
Note: •Record 99 if they don't know or not applicable	

1904. I am good at mathematics. **Ndimachita bwino pa masamu.**	*select_one likert*
Note: •Record 99 if they don't know or not applicable	

1905. I tend to postpone tasks even if I know it would be better to do them right away. **Ndimasunthira ntchito kutsogolo ngakhale kuti ndikudziwa kuti zingakhale bwino nditagwiriratu ntchitozo.**	*select_one likert*
Note: •Record 99 if they don't know or not applicable	

Note: ***Enumerator READ and Emphasize that these questions are hypothetical***: Please imagine the following situation: (this is a hypothetical situation) •You can choose between a sure payment of a particular amount of money, OR a draw, where you would have an equal chance of getting ***750 Kwacha*** or getting nothing. •We will present to you five different situations. ***•Enumerator welengani. Onetsetsani kuti oyankha mafunso anvetsetsa kuti mafunsowa tikukamba mongoyerekeza mmene angappangire zinthu zitati zikuchitika mmene tikufunsiramu*: Chonde taganizirani za zochitikachitika zotsatirazi:** **•Mungathe kusankha pakati pa gawo la ndalama yobwerekedwa kuchotsa chiongola dzanja yomwe sinabwezedwe kapena kutapa ndalama kuchoka ku banki, pomwe muti mudzakhale ndi mwayi wotenga *750 Kwacha* kapena osatenga kalikonse.** **•Tikuonetserani zochitikachitika zisanu zosiyanasiyana.**

1906. What would you prefer: A draw with a 50-percent chance of receiving **2250 Kwacha** and the same 50-percent chance of receiving nothing, OR the amount of **1200 Kwacha** as a sure payment? Kodi inu mungakonde chiyani: Kupanga mayele pozungulitsa ndalama yachitsulo yomwe ikupatseni mwayi opata ndalama **2250 Kwacha** ngati ndalamayi yagwera ku mutu komanso osapata ndalama inailiyonse ngati ndalamayi yagwera ku mchira; kapena kungolandira **1200 Kwacha** imene mukuidziwa kale?	*select_one payment*
50/50 chance	*1*
Sure payment	*2*
Don't know/Not applicable	*99*

1907. Would you prefer the 50/50 chance or the amount of **600 Kwacha** as a sure payment? Kodi mungakonde kupanga mayele ozungulitsa ndalama yachitsulo yomwe ikupatseni mwayi opata ndalama ngati ndalamayi yagwera ku mutu komanso osapata ndalama inailiyonse ngati ndalamayi yagwera ku mchira; kapena kungolandira **600 Kwacha** imene mukuidziwa kale?	*select_one payment*
1908. Would you prefer the 50/50 chance or the amount of 3**00 Kwacha** as a sure payment? Kodi mungakonde kupanga mayele ozungulitsa ndalama yachitsulo yomwe ikupatseni mwayi opata ndalama ngati ndalamayi yagwera ku mutu komanso osapata ndalama inailiyonse ngati ndalamayi yagwera ku mchira; kapena kungolandira **300 Kwacha** imene mukuidziwa kale??	*select_one payment*
1909. Would you prefer the 50/50 chance or the amount of **450 Kwacha** as a sure payment? Kodi mungakonde kupanga mayele ozungulitsa ndalama yachitsulo yomwe ikupatseni mwayi opata ndalama ngati ndalamayi yagwera ku mutu komanso osapata ndalama inailiyonse ngati ndalamayi yagwera ku mchira; kapena kungolandira **450 Kwacha** imene mukuidziwa kale?	*select_one payment*

1910. Would you prefer the 50/50 chance or the amount of **525 Kwacha** as a sure payment? Kodi mungakonde kupanga mayele ozungulitsa ndalama yachitsulo yomwe ikupatseni mwayi opata ndalama ngati ndalamayi yagwera ku mutu komanso osapata ndalama inailiyonse ngati ndalamayi yagwera ku mchira; kapena kungolandira **525 Kwacha** imene mukuidziwa kale**?**	*select_one payment*
1911. Would you prefer the 50/50 chance or the amount of **375 Kwacha** as a sure payment? Kodi mungakonde kupanga mayele ozungulitsa ndalama yachitsulo yomwe ikupatseni mwayi opata ndalama ngati ndalamayi yagwera ku mutu komanso osapata ndalama inailiyonse ngati ndalamayi yagwera ku mchira; kapena kungolandira **375 Kwacha** imene mukuidziwa kale?	*select_one payment*
1912. Would you prefer the 50/50 chance or the amount of **150 Kwacha** as a sure payment? Kodi mungakonde kupanga mayele ozungulitsa ndalama yachitsulo yomwe ikupatseni mwayi opata ndalama ngati ndalamayi yagwera ku mutu komanso osapata ndalama inailiyonse ngati ndalamayi yagwera ku mchira; kapena kungolandira **150 Kwacha** imene mukuidziwa kale??	*select_one payment*
1913. Would you prefer the 50/50 chance or the amount of **225 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 225 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1914. Would you prefer the 50/50 chance or the amount of **75 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 75 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1915. Would you prefer the 50/50 chance or the amount of **900 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 900 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1916. Would you prefer the 50/50 chance or the amount of **750 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 750 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1917. Would you prefer the 50/50 chance or the amount of **675 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 675 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1918. Would you prefer the 50/50 chance or the amount of **825 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 825 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1919. Would you prefer the 50/50 chance or the amount of **1050 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1050 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1920. Would you prefer the 50/50 chance or the amount of **1125 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1125 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1921. Would you prefer the 50/50 chance or the amount of **975 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 975 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*

1922. Would you prefer the 50/50 chance or the amount of **1800 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1800 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1923. Would you prefer the 50/50 chance or the amount of **1500 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1500 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1924. Would you prefer the 50/50 chance or the amount of **1350 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1350 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1925. Would you prefer the 50/50 chance or the amount of **1425 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1425 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1926. Would you prefer the 50/50 chance or the amount of **1275 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1275 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1927. Would you prefer the 50/50 chance or the amount of **1650 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1650 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1928. Would you prefer the 50/50 chance or the amount of **1725 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1725 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1929. Would you prefer the 50/50 chance or the amount of **1575 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1575 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1930. Would you prefer the 50/50 chance or the amount of **2100 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 2100 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1931. Would you prefer the 50/50 chance or the amount of **1950 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1950 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1932. Would you prefer the 50/50 chance or the amount of **2025 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 2025 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*

1933. Would you prefer the 50/50 chance or the amount of **1875 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 1875 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1934. Would you prefer the 50/50 chance or the amount of **2250 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 2250 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1935. Would you prefer the 50/50 chance or the amount of **2175 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 2175 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*
1936. Would you prefer the 50/50 chance or the amount of **2325 Kwacha** as a sure payment? **Kodi mukadakonda mwayi wa pakati mpakati kapena 2325 Kwacha monga ndalama yobweza gawo la ngongole yomwe sinabwezedwe kuchotsapo chiongola dzanja?**	*select_one payment*

Note: Suppose you were given a choice between receiving a payment today or a payment in 12 months. We will now present to you five situations.
•The payment today to be made is the same in each of these five situations.
•The payment in 12 months is different in each of the five situations, we would like to know which you would choose. Please assume that there is no inflation, i.e. future prices are the same as today's price.

•Tingoyerekeza kuti mwapatsidwa mwayi wosankha kulandira malipiro lero kapena kudzalandira malipo mmwezi ngati omwe uno chaka cha mawa. Tsopano tikuonetserani zochitikachitika zisanu.
•Malipiro omwe mukadalandira lero ndi ofanana mu zochitikachitika zonsezi.
•Malipiro omwe mudzalandire mmiyezi khumi ndi iwiri ikudzayi ndi wosiyana mu zochitikachitikazi. Mu chilichonse mwa zochitikazi, tikufuna kudziwa kuti ndi chiti chimene inu mukadasankha. Chonde mungoyerekeza kuti mphamvu ya ndalama idzakhalabe chimodzimodzi, mwachitsanzo mitengo ya katundu idzakhala chimodzimodzi ngati lero

1937. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1383 Kwacha** in 12 months? **Chonde taganizirani zotsatirazi: Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1383 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
Today	*1*
In 12 months	*2*
DK/NA	*99*

1938. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1128 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1128 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1939. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1011 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1011 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1940. Please consider the following situation: Would you rather receive **900 Kwacha** today or **954 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 954 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1941. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1227 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1227 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1942. Please consider the following situation: Would you rather receive **900 Kwacha** today or **984 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 984 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1943. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1068 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1068 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1944. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1398 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1398 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1945. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1041 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1041 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1946. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1254 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1254 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1947. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1191 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1191 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1948. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1158 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1158 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1949. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1221 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1221 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*

1950. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1317 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1317 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1951. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1284 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1284 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1952. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1350 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1350 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1953. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1665 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1665 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1954. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1815 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1815 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1955. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1740 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1740 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1956. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1776 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1776 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1957. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1701 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1701 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1958. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1893 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1893 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1959. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1932 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1932 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1960. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1894 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1894 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1961. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1521 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1521 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*

1962. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1452 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1452 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1963. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1419 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1419 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1964. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1485 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1485 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1965. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1593 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1593 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1966. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1557 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1557 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*
1967. Please consider the following situation: Would you rather receive **900 Kwacha** today or **1629 Kwacha** in 12 months? **Kodi mukadasankha kulandira 900 kwacha lero kapena kudzalandira 1629 Kwacha mmiyezi khumi ndi iwiri ikudzayi?**	*select_one future*

Note: I will now ask you questions concerning agricultural production during the 2018/19 production period. **Pano ndikufusani mafunso okhudzana ndi ulimi wa mu 2018/19.**

2001. Did you farm/cultivate any land during the 2018/19 season (including plots rented in)? **Kodi munalima munda wina uliwonse mu nyengo yolima ya 2018/19 (kuphatikizapo minda yobwereka)?**	*select_one yes_no*
Yes	*1*
No	*0*

2002. How many plots did you own or otherwise manage during the 2018/2019 season? **Munali ndi minda ingati munyengo yolima ya 2018/19?**	*integer*
Note: including plots rented in or rented out, fallowed, etc.	

2003. Give a description/ location of this plot. **Kodi munda umenewu mungaulongosole bwanji/uli kuti**.	*text*
Note: Description could be roadside, dimba, forest, dambo, hillside plot or any kind of description you can choose	

2004. Is this _____ the same piece of land on which the dwelling is located? **Kodi munda wa _____ uli pakhomo pamene mumakhala?**	*select_one yes_no*

Yes	*1*
No	*0*

2005. What is the area of _____ plot? **Munda wa _____ ndiwaukulu bwanji?**	*decimal*
Note: Farmer estimation	

2005. Units: **Kayezedwe ka milingo ya kukula kwa malo.**	*select_one areaunits*
Acre	*1*
Hectare	*2*
Square meters	*3*
Other (Specify)	*4*
Provide a unit of measurement for _____ plot here if not listed previously. **Longosolani milingo ya kayezedwe ka kukula kwa munda wa _____ .**	*text*

2006. Who in the household makes the decisions on crops planted, input use and the timing of cropping activities on _____ plot? **Kodi amene amapanga ziganizo zokhudzana ndi mbewu zakuti mulime, zipangizo zaulimi zoti mugwiritse ntchito; nthawi yoti mugwire ntchito zosiyanasiyana za pa munda _____ ndi ndani?**	*select_multiple family*
Family list	

2007. What is the predominant soil type of _____ plot? **Kodi dothi la pa munda _____ ndilotani?**	*select_one soiltype*
Sandy **Dothi lanchenga**	*1*
Between sandy and clay **Dothi losakanikira nchenga ndi lamakande**	*2*
Clay **Dothi lamakande**	*3*
Other (specify)	*4*
Please specify the soil type of _____ plot. **Longosolani kuti dothi la pa munda _____ ndilotani**	*text*

2008. What is the soil quality of plot _____ ? **Kodi chonde pa munda _____ ndilabwino bwanji?**	*select_one soilquality*
Good	*1*
Fair	*2*
Poor	*3*

2009. How would you rate the extent of erosion on this _____ ? **Kodi mungati nthaka ndiyokokoloka bwanji pa munda wa _____ ?**	*select_one erosionextent*
No erosion	*1*
Low levels of erosion	*2*

Moderate levels of erosion	*3*
High levels of erosion	*4*

2010. What is the cause of these problems of erosion? **Kodi chimapangitsa kukokoloka kwa nthaka kumeneku ndi chani?**	*select_multiple erosioncause*
Terrain (e.g., slope, unevenness)	*1*
Flooding (e.g., inundation washing away soil)	*2*
Wind	*3*
Animals	*4*
Other (specify)	*5*
Specify erosion cause.	*text*

2011. What is the slope of _____ plot? **Kodi munda wa _____ ndiotsetsereka bwanji?**	*select_one slope*
Flat	*1*
Slight Slope	*2*
Moderate Slope	*3*
Steep Slope	*4*
Hilly	*5*

2012. Is this _____ swamp/wetland? **Kodi munda wa _____ ndi dambo/malo odikha madzi?**	*select_one yes_no*
Yes	*1*
No	*0*

2013. What systems of irrigation are on _____ plot? **Kodi mumagwiritsa njira yanji yamthirira pa munda wa _____ ?**	*select_one irrigationsys*
Divert stream	*1*
Bucket	*2*
Hand pump	*3*
Treadle pump	*4*
Motor pump Solar pump	*5*
Drip system	*6*
Gravity	*7*
Rainfed/No irrigation	*8*
Other (specify)	*9*
Please specify the other system of irrigation on _____ plot. **Longosolani njira yamthilira yomwe mumagwiritsa ntchito pa munda wa _____ .**	*text*

2014. What is the method of irrigating/pouring water on plants on _____ ? **Mumathilira bwanji madzi pa mbewu pa munda wa _____ ?**	*select_one irrigmethod*
Watering can	*1*
Hose pipe	*2*
Sprinkler	*3*
Drip irrigation	*4*
Flooding	*5*

2015. What is the source of water for _____ plot? **Madzi amene mumathilira pa munda wa _____ amachokera kuti?**	*select_one irrwatersource*
Well	*1*
Borehole	*2*
Lake/pond	*3*
Riverstream	*4*
Other (specify)	*5*
Specify the source of water for _____ plot. **Longosolani kumene madzi amene mumathilira pa munda wa _____ amachokera.**	*text*

2016. Was this _____ plot ever left fallow in the past 5 years? **Mu zaka zisanu zapitazi, kodi munda wa _____ unasiyidwako ngati tsala?"**	*Select_one yes_no*
Yes	*1*
No	*0*

2017. What was the most recent year in the past 5 years this plot _____ was left fallow? **Muzaka zisanu zapitazi, kodi ndi chaka chiti chomaliza chimene munda wa _____ munaugoneka ngati tsala.**	*select_one myear*
2014	*2014*
2015	*2015*
2016	*2016*
2017	*2017*
2018	*2018*
2019	*2019*
Note: If never, record 0. If don't know, record 8888	

2018. For how many years in the past 5 years was it left fallow? **Muzaka zisanu zapitazi, munda wa _____ wagonako kangati ngati tsala?**	*integer*

2019. Why was _____ plot left fallow? **Ndi chifukwa chani munda wa _____ munaugoneka ngati tsala?**	*select_one whyfallow*
Good for land	*1*

Lack of non-labor inputs	*2*
Lack of household labor	*3*
Lack of hired labor	*4*
Lack of equipment	*5*
Lack of credit	*6*
Other (specify)	*7*

2020. In which month did you finish planting this plot _____ ? **Munamaliza kudzala mmwezi wanji munda wa _____ ?**	*select_one month*
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*
Don't know	*99*

2021. Did you finish planting this plot _____ in the first or second half of the month? **Munamaliza kudzala theka/muchigawo choyamba kapena chachiwiri cha mwezi pa munda wa _____ ?**	*select_one withinmonth*
First half	*1*
Second half	*0*

2022. Did you use any organic fertilizer on this _____ during the 2018/19 rainy season? **Munagwiritsa ntchito manyowa ena aliwonse pa munda wa _____ mu ulimi wa 2018/19?**	*select_one yes_no*
Yes	*1*
No	*0*

2023. How much organic fertilizer did you apply to this _____ ? **Munathira manyowa ochuluka bwanji pa munda wa _____ ?**	*decimal*
Kayezedwe ka mlingo wa manyowa	*select_one orgfertunit*
Buckets	*1*
Wheelbarrows	*2*

Ox Carts	*3*
50 KG Bags	*4*
Other (specify)	*5*
Specify unit. **Nenani mlingo wina wakayezedwe**	*text*

Note: Animal manure, compost, green manure

2024. Did you use any inorganic fertilizer on this _____ during the 2018/19 rainy season? **Munagwiritsa ntchito feteleza wina aliyense pa munda wa _____ mu ulimi wa 2018/19?**	*select_one yes_no*
Yes	*1*
No	*0*

2025. What type of fertilizer did you apply on _____ ? **Munathira feteleza wamtundu wanji pa munda wa _____ ?**	*select_multiple fertilizer*
23:21:0+4S/Chitowe	*1*
DAP	*2*
CAN	*3*
UREA	*4*
D Compound	*5*
Other (specify)	*6*
Specify fertilizer applied on _____ ? **Longosolani mtundu wa feteleza amene munathira pa munda wa _____ .**	*text*

2026. First application quantity of _____ on _____ plot. **Kodi feteleza wa _____ munathira ochuluka bwanji pa munda wa _____ pothira koyamba?**	*decimal*
Note: If two types of fertilizer were mixed, record the main type of fertilizer applied. Sum both types for total quantity	

2026. Unit. **Kayezedwe ka mlingo wa feteleza**	*select_one fertilizerunit*
Kilograms	*1*
2 kg bag	*2*
3 kg bag	*3*
5 kg bag	*4*
10 kg bag	*5*
50 kg bag	*6*
Other (specify)	*7*
Specify unit of _____ fertilizer applied on _____ ? **Longosolani kayezedwe ka mlingo wa feteleza**.	*text*

2027. How many weeks after planting did you finish the first fertilizer application on this plot? **Kodi munathira feteleza koyamba patadutsa masabata angati kuchokera tsiku limene munadzala mbewu?**	*integer*

2028. Second application quantity of _____ on _____ plot. **Kodi feteleza wa _____ munathira ochuluka bwanji pa munda wa _____ pothira kachiwiri?**	*decimal*
Note: Quantity	
Unit. **Kayezedwe ka mlingo wa feteleza**	*select_one fertilizerunit*
Kilograms	*1*
2 kg bag	*2*
3 kg bag	*3*
5 kg bag	*4*
10 kg bag	*5*
50 kg bag	*6*
Other (specify)	*7*
Specify unit	*text*

2029. How many weeks after planting did you finish the second fertilizer application on this plot? **Munathira feteleza wachiwiri patadutsa masabata angati kuchokera tsiku limene munadzala mbewu?**	*integer*

2030. How many complete weedings did you do on this _____ plot? **Kodi munda wa _____ munaupalira kangati?**	*integer*
Note: Record zero if none	

2031. How many weeks after planting did you finish the first weeding on _____ plot? **Kodi munamaliza kupalira koyamba patadutsa masabata angati kuchokera tsiku limene munadzala mbewu mmunda wa _____ ?**	*integer*

2032. Did you use any pesticides/herbicides on _____ during the 2018/19 season? **Kodi munagwiritsako ntchito mankhwala ena aliwonse mmunda wa _____ mu ulimi wa 2018/19?**	*select_one yes_no*
Yes	*1*
No	*0*

2033. What type of pesticide did you apply on _____ ? **Kodi munapopela mankhwala amtundu wanji pa munda wa _____ ?**	*select_multiple pesticide*
Insecticide **Mankhwala ophela tizirombo**	*1*
Herbicide **Mankhwala ophela udzu**	*2*
Fungicide **Mankhwala oteteza ku chiwawu**	*3*

Other (specify)	*5*
Specify pesticide applied on _____ ? **Nenani mtundu wa mankhwala amene munapopera pa munda wa _____ ?**	*text*

2034. How much _____ did you apply on _____ ? **Kodi munapopela _____ ochuluka bwanji pa munda wa _____?**	*decimal*

2034. Unit. **Kayezedwe ka mlingo wa mankhwala.**	*select_one Pesticideunit*
grams	*1*
kilograms	*2*
milliliters	*3*
liters	*4*
Other (specify)	*5*
grams	*6*

2035. Did you hire anyone to work on _____ plot? **Kodi mu ulimi wa 2018/19, munalembako ntchito aganyu kuti agwire ntchito pa munda wanu wina uliwonse?**	*select_one yes_no*
Yes	*1*
No	*0*

20367. How many people did you hire? **Munalemba ntchito anthu aganyu angati?**	*integer*

2037. For how many days did they work on your _____ plots? **Aganyuwa anagwira ntchito masiku angati?**	*integer*

2101. Did you or anyone in your household receive coupons in the 2018/19 season, regardless of how the coupons were obtained or used? **Kodi inu kapena wina aliyense pakhomo pano analandirako ma kuponi mu ulimi wa 2018/19, osatengera kumene makuponiwo anachokera kapena ngati anagwiritsidwa ntchito?**	*select_one yes_no*
Yes	*1*
No	*0*

2102. Who in the household received the coupon? **Analandira makuponiwo ndi ndani pakhomo pano?**	*select_multiple family*

Family list

2103. Coupon type. **Kodi makuponiwo anali achani?**	*select_multiple coupon*
23:21:0+4S/Chitowe	*1*
UREA	*2*

Maize seed	*3*
Flexi seed	*4*

2104. Number of coupons obtained. **Munalandira makuponi angati?**	*integer*

2105. When did you obtain _____ ? **Kodi kuponi ya _____ munailandira chaka chiti?**	*year*

2105. When did you obtain _____ ? **Kodi kuponi ya _____ munailandira mwezi uti?**	*select_one month*
January	*1*
February	*2*
March	*3*
April	*4*
May	*5*
June	*6*
July	*7*
August	*8*
September	*9*
October	*10*
November	*11*
December	*12*
Don't know	*99*

2106. Was _____ redeemed for inputs? **Kodi kuponi ya _____ inakaomboledwa?**	*select_one yes_no*
Yes	*1*
No	*0*

2107. What type of input was purchased with _____ ? **Munagula zipangizo zaulimi zanji ndi kuponi ya _____ ?**	*select_one coupon_input*
23:21:0+4S/Chitowe	*1*
UREA	*2*
Other fertilizer (specify)	*3*
OPV maize seed (open pollinated varieties)	*4*
Hybrid maize seed	*5*
Bean seed	*6*
Groundnut seed	*7*
Soybean seed	*8*

None	*9*

2108. What was the quantity of input purchased with _____ ? **Munagula zipangizo zaulimi zochuluka bwanji ndi kuponi ya _____ ?**	*decimal*

2108. What was the quantity of input purchased with _____ ? **Munagula zipangizo zaulimi zochuluka bwanji ndi kuponi ya _____ ?**	*select_one input_unit*
grams	*1*
kilogram	*2*
2 kg bag	*3*
3 kg bag	*4*
5 kg bag	*5*
10 kg bag	*6*
50 kg bag	*7*
Other	*8*
Liter	*9*
milliliter	*10*
Bucket	*11*
Wheelbarrow	*12*
Oxcart	*13*
Other (specify)	*14*

2109. at how much was _____ being sold at the market where you redeemed the coupon? **Kodi _____ amagulitsa ndalama zingati ku nsika umene munakaombola makuponi anu?**	integer

2110. How much did you pay as a co-payment to redeem the _____ coupon? **Inu munalipira ndalama zingati kuti muombore _____?**	*integer*

2111. Did your households receive any fertilizer, maize or flexi seed input coupons in 2015/16? **Kodi panyumba panu pano munalandira makuponi a feteleza, chimanga kapena mbewu za gulu la nyemba mu 2015/16**	*select_one yes_no*
Yes	*1*
No	*0*

2112. Did your households receive any fertilizer, maize or flexi seed input coupons in 2016/17? **Kodi panyumba panu pano munalandira makuponi a feteleza, chimanga kapena mbewu za gulu la nyemba mu 2016/17?**	*select_one yes_no*

Yes	*1*
No	*0*

2113. Did your households receive any fertilizer, maize or flexi seed input coupons in 2017/18? **Kodi panyumba panu pano munalandira makuponi a feteleza, chimanga kapena mbewu za gulu la nyemba mu 2017/18?**	*select_one yes_no*
Yes	*1*
No	*0*

2114. Did your households receive any fertilizer, maize or flexi seed input coupons in 2018/19? **Kodi panyumba panu pano munalandira makuponi a feteleza, chimanga kapena mbewu za gulu la nyemba mu 2018/19?**	*select_one yes_no*
Yes	*1*
No	*0*

2201. Which of the following inputs did you purchase without coupons/vouchers? **Mwazipangizo izi, ndi chiti chimene munagula osagwiritsa ntchito makuponi?**	*select_multiple coupon_input*
23:21:0+4S/Chitowe	*1*
UREA	*2*
Other fertilizer (specify)	*3*
OPV maize seed	*4*
Hybrid maize seed	*5*
Bean seed	*6*
Groundnut seed	*7*
Soyabean seed	*8*
None	*9*
Specify	*text*

2202. How much of the _____ was purchased? **Kodi munagula _____ ochuluka bwanji?**	*decimal*

2202. How much of the _____ was purchased? **Kodi munagula _____ ochuluka bwanji?**	*select_one input_unit*
grams	*1*
kilogram	*2*
2 kg bag	*3*
3 kg bag	*4*
5 kg bag	*5*

10 kg bag	*6*
50 kg bag	*7*
Other	*8*
liter	*9*
milliliter	*10*
Bucket	*11*
Wheelbarrow	*12*
Oxcart	*13*
Other (specify)	*14*

2202. Specify input unit. **Longosolani kayezedwe ka mlingo.**	*text*

2203. How much did you pay to buy _____ ? **Kodi munalipira ndalama zingati kuti mugule _____ ?**	*decimal*

2204. How did you finance the purchase _____ _____ ? **Ndalama zogulira _____ munazipeza bwanji?**	*select_one finance*
Paid in full, with own-savings	*1*
Received on credit	*2*
Part own saving, part credit	*3*

2205. How much did you pay upfront for this _____ ? **Ndi ndalama zingati zogulira _____ zimene munalipiliratu musanatenge _____ 'yo?**	*integer*

2206. How much did you pay or will you pay for _____ ? **Kodi munalipira kapena mudzalipira ndalama zingati kuti mugule _____ ?**	*integer*
Note: Include cash payments and estimated value of in-kind payments.	

2207. Was any of the _____ left over from previous season? **Kodi wina mwa _____ anali otsalira kuchokera ulimi wa chaka cha 2017/18?**	*select_one yes_no*
Yes	*1*
No	*0*

2208. How much of the _____ was left over from previous season? _____ **amene anatsala chaka chathayu anali ochuluka bwanji?**	*decimal*

2208. How much of the _____ was left over from previous season? _____ **amene anatsala chaka chathayu anali ochuluka bwanji?**	*select_one input_unit*
grams	*1*
kilogram	*2*
2 kg bag	*3*

3 kg bag	*4*
5 kg bag	*5*
10 kg bag	*6*
50 kg bag	*7*
liter	*9*
milliliter	*10*
Bucket	*11*
Wheelbarrow	*12*
Oxcart	*13*
Other (specify)	*14*

2208. Specify input unit. **Nenani kayezedwe ka mlingo.**	*text*

2301. What crops did you plant on _____ . **Kodi pa munda wa _____ munadzalapo mbewu zanji?**	*select_multiple crop*
Local Maize	*1*
Composite/OPV Maize	*2*
Hybrid Maize	*3*
Hybrid Recycled Maize	*4*
Burley Tobacco	*5*
Flue Cured Tobacco	*6*
NDDF Tobacco	*7*
SDDF Tobacco	*8*
Oriental Tobacco	*9*
Chalimbana Groundnut	*10*
CG7 Groundnut	*11*
Manipinta Groundnut	*12*
Mawanga Groundnut	*13*
Local Rice	*14*
Faya Rice	*15*
Pussa Rice	*16*
TCG10 Rice	*17*
IET4094 (senga) Rice	*18*
Kilombero Rice	*19*
ITA Rice	*20*
Mtupatupa Rice	*21*
Ground Bean (Nzama)	*22*

Cassava	*23*
Sweet Potato	*24*
Irish (Malawi) Potato	*25*
Wheat	*26*
Finger Millet (Mawere)	*27*
Sorghum	*28*
Pearl Millet	*29*
Beans	*30*
Soyabean	*31*
Pigeonpea (Nandolo)	*32*
Cotton	*33*
Sunflower	*34*
Sugar Cane	*35*
Cabbage	*36*
Tanaposi	*37*
Nkhwani	*38*
Therere/Okra	*39*
Tomato	*40*
Onion	*41*
Pea	*42*
Paprika	*43*
Tea	*44*
Coffee	*45*
Mango	*46*
Orange	*47*
Pawpaw/Papaya	*48*
Banana	*49*
Avocado	*50*
Guava	*51*
Lemon	*52*
Naart Je (Tangerine)	*53*
Peach	*54*
Custade Apple (Poza)	*55*
Mexican Apple (Masuku)	*56*
Masau	*57*
Pineapple	*58*

Macadamia	*59*
Lentils (Nseula)	*60*
Other (Specify)	*99*

2302. Is the _____ variety local or improved? **Kodi mbewu ya _____ inali ya lokolo kapena ya makono?**	*select_one improved*
Improved	*1*
Local	*2*

2303. What type of stand was on _____ ? **Kodi pa _____ munadzalapo mbewu ya mtundu umodzi kapena munadzalapo mbewu za mitundu ingapo?**	*select_one stand*
Pure stand/sole	*1*
Strip intercrop	*2*
Row intercrop	*3*
Relay intercrop	*4*
Mixed cropping	*5*

2304. Approximately how much of _____ is under _____ ? **Kodi mbewu ya _____ munaidzala pa malo ochuluka bwanji pa munda _____ ?**	*select_one intercrop*
Less than quarter	*1*
Quarter	*2*
Half	*3*
Three quarters	*4*
More than 3 quarters	*5*

2305. How much seed for _____ did you plant during the 2018/19 season? **Munadzala mbewu yochuluka bwanji ya _____ mu ulimi wa 2018/19?**	*decimal*

2305. How much seed for _____ did you plant during the 2018/19 season? **Munadzala mbewu yochuluka bwanji ya _____ mu ulimi wa 2018/19?**	*select_one input_unit*
grams	*1*
kilogram	*2*
2 kg bag	*3*
3 kg bag	*4*
5 kg bag	*5*
10 kg bag	*6*
50 kg bag	*7*

Bucket	*11*
Wheelbarrow	*12*
Oxcart	*13*
Other (specify)	*14*

2306. When did you plant the seed for _____ ? **Munadzala chaka chanji _____ ?**	*select_one myear*

2306. When did you plant the seed for _____ ? **Munadzala mwezi wanji _____ ?**	*select_one month*

2307. How much _____ did you harvest on _____ during the 2018/19 season? **Kodi munakolora _____ ochuluka bwanji pa munda wa _____ mu ulimi wa 2018/19?**	*decimal*

2307. How much _____ did you harvest on _____ during the 2018/19 season? **Kodi munakolora _____ ochuluka bwanji pa munda wa _____ mu ulimi wa 2018/19?**	*select_one cropunit*
Kilograms	*1*
50 kg bags	*2*
90 kg bags	*3*
Pail (small)	*4*
Pail (large)	*5*
No. 10 plate	*6*
No. 12 plate	*7*
Bunch	*8*
Piece	*9*
Bale	*10*
Basket (dengu)	*11*
Ox-cart	*12*
Other (specify)	*13*

2307. Specify other unit. **Longosolani kayezedwe ka mlingo**	*text*

2307. Shelled/unshelled. **Zotonola/zosatonola/zosenda/zosasenda**	*select_one shelled*
Shelled	*1*
Unshelled	*2*
Not applicable	*3*

2308. Was the area harvested less than the area planted? **Kodi kukula kwa malo amene munakolora anali ochepa kufanizira ndi kukula kwa malo amene munadzala?**	*select_one yes_no*
Yes	*1*
No	*0*

2309. Why was the area harvested less than the area planted? **Ndi chifukwa chani kukula kwa malo amene munakolora anali ochepa mukafanizira ndi kukula kwa malo amene munadzala?**	*select_multiple lessharvest*
Drought	*1*
Effect of fire	*2*
Effect of insects	*3*
Effect of animals	*4*
Effect of crop theft	*5*
Effect of diseases	*6*
Lack of hired labor	*7*
Other (specify)	*8*
Irregular rains	*9*

2309. Other reason for harvesting area less than planted. **Longosolani chifukwa chimene kukula kwa malo amene munakolora anali ochepa mukafanizira ndi malo amene munadzala.**	*text*

2310. When did you start harvesting? **Munayamba kukolola liti?**	*select_one month*

2311. When did you finish harvesting? **Munamaliza kukolora liti?**	*select_one month*

2312. Who in the household makes decision concerning the use of _____ on _____ ? **Kodi amapanga ziganizo zokhudzana ndi kagwiritsidwe ka ntchito ka _____ pa munda wa _____ ndi ndani pakhomo pano?**	*select_one family*
Family list	

2401. Did you sell any of the _____ that you harvested? **Kodi munagulitsako _____ zimene munakolola mu 2018/19?**	*select_one yes_no*
Yes	*1*
No	*0*

2402. How much of the _____ was sold in total? **Munagulitsa _____ ochuluka bwanji?**	*decimal*
Note: Record the quantity	

2402. How much of the _____ was sold in total? **Munagulitsa _____ ochuluka bwanji?**	*select_one cropunit*
Kilograms	*1*
50 kg bags	*2*
90 kg bags	*3*
Pail (small)	*4*
Pail (large)	*5*
No. 10 plate	*6*
No. 12 plate	*7*
Bunch	*8*
Piece	*9*
Bale	*10*
Basket (dengu)	*11*
Ox-cart	*12*
Other (specify)	*13*
Note: Units	

2402. Was the _____ sold shelled? **Kodi munagulitsa _____ otonola?**	*select_one shelled*
Shelled	*1*
Unshelled	*2*
Not applicable	*3*

2403. What was the total value of all _____ sales? **Kodi mutagulitsa _____ , munapeza ndalama zingati?**	*integer*
Note: Estimate the value of in-kind payments	

2404a. Who/what were the main buyers/outlets of your _____ sales? **Amene/kumene anagula _____ wambiri anali ndani?**	*text*

2404b. Who/what were the main buyers/outlets of your _____ sales? **Amene/kumene anagula _____ wambiri anali ndani?**	*Text*

2405. When was most of your _____ sold? **Munagulitsa _____ wambiri chaka chanji?**	*select_one myear*

2405. When was most of your _____ sold? **Munagulitsa _____ wambiri mwezi wanji?**	*select_one month*

*2406. When was most of your _____ sold to _____? **Munagulitsa _____ wambiri liti***	*select_one myear*

*2406. When was most of your _____ sold to _____? **Munagulitsa _____ wambiri liti***	*select_one month*

2407. Who in your household kept/decided on what to do with the earnings from the sales of _____ ? **Amene amapanga maganizo okhudzana ndi kagwiritsidwe ntchito ka ndalama zochokera kugulitsa _____ ndi ndani panyumba panu pano?**	*select_multiple family*
Family list	

2408. How much of the harvested _____ during the 2018/19 was given out as gifts or reimbursements for land, labor? **Ndi _____ chochuluka bwanji chimene munakolora mu 2018/19 chimene munagawa ngati mphatso kapena munagwiritsa ntchito polipira malo kapena aganyu?**	*decimal*

2408. How much of the harvested _____ during the 2018/19 was given out as gifts or reimbursements for land, labor? **Ndi _____ chochuluka bwanji chimene munakolora mu 2018/19 chimene munagawa ngati mphatso kapena munagwiritsa ntchito polipira malo kapena aganyu?**	*select_one cropunit*

2408. Was the _____ given out shelled? **Kodi _____ chimene munagawa chinali chotonola?**	*select_one shelled*

2409. How much of the harvested _____ during the 2018/19 was given out as gifts or reimbursements for inputs borrowed or acquired? **Ndi _____ chochuluka bwanji chimene munakolora mu 2018/19 chimene munagawa ngati mphatso kapena munagwiritsa ntchito popobweza ngongole ya zapingizo za ulimi?**	*decimal*

2409. How much of the harvested _____ during the 2018/19 was given out as gifts or reimbursements for inputs borrowed or acquired? **Ndi _____ chochuluka bwanji chimene munakolora mu 2018/19 chimene munagawa ngati mphatso kapena munagwiritsa ntchito pobweza ngongole ya zapingizo za ulimi?**	*select_one cropunit*
Specify Unit	*text*

2409. Was the _____ shelled? **Kodi _____ chinali chotonola?**	*select_one shelled*

2410. How much of the harvested _____ during the 2018/19 was used for animal feed? **Ndi _____ chochuluka bwanji chimene munakolora mu 2018/19 chimene munadyetsera ziweto?**	*decimal*
Note: •Exclude the quantity given to livestock due to pest damage •Record zero if none	

2410. How much of the harvested _____ during the 2018/19 was used for animal feed? **Ndi _____ chochuluka bwanji chimene munakolora mu 2018/19 chimene munadyetsera ziweto?**	*select_one cropunit*
Specify unit	*text*

2410. Was the _____ shelled? **Kodi** _____ **chinali chotonola?**	*select_one shelled*

2411. How much of the harvested _____ during the 2018/19 was used as an input for _____ products that your household sold, if any, for cash/in-kind goods/services? **Ndi** _____ **chochuluka bwanji chimene munakolora mu 2018/19 chimene munagawa ngati mphatso kapena munagwiritsa ntchito kupangira zinthu zimene munagulitsa pakhomo panu?**	*decimal*
Note: Record zero if none	

2411. How much of the harvested _____ during the 2018/19 was used as an input for _____ products that your household sold, if any, for cash/in-kind goods/services? **Ndi** _____ **chochuluka bwanji chimene munakolora mu 2018/19 chimene munagawa ngati mphatso kapena munagwiritsa ntchito kupangira zinthu zimene munagulitsa pakhomo panu?**	*select_one cropunit*
Specify unit	*text*

2411. Was the _____ shelled? **Kodi** _____ **chinali chotonola?**	*select_one shelled*

2412. How much of the harvested _____ during the 2018/19 was lost due to rotting, insects, rodents, theft, etc in the post-harvest period? **Ndi** _____ **chochuluka bwanji chimene munakolora mu 2018/19 chimene chinaonongeka kamba kakuola, tizirombo, makoswe, kubedwa, etc mutakolora kale?**	*integer*
Note: Use percent only if the respondent failed to provide an approximate quantity of loss.	
2412. How much of the harvested _____ during the 2018/19 was lost due to rotting, insects, rodents, theft, etc in the post-harvest period? **Ndi** _____ **chochuluka bwanji chimene munakolora mu 2018/19 chimene chinaonongeka kamba kakuola, tizirombo, makoswe, kubedwa, etc mutakolora kale?**	*select_one cropunit*
Specify unit	*text*

2412. Was the _____ shelled? **Kodi** _____ **chinali chotonola?**	*select_one shelled*

2413. What was the reason for the loss? **Chifukwa chenicheni chinapangitsa zokolora zionongeke ndi chiti?**	*select_multiple postharv_loss*
Rotting	*1*
Insects	*2*
Rodents/pests	*3*
Flood	*4*
Theft	*5*
Other (specify)	*6*

2413. Specify reason for post-harvest loss. **Nenani chifukwa china chimene chinaonongetsa zokolora**	*text*

2414. Do you have any of the harvested _____ in storage now? **Kodi muli ndi zokolora zili zonse za _____ zimene munasunga?**	*select_one yes_no*
Yes	*1*
No	*0*

2415. What is your main method of storage for this crop? **Kodi njira yodalilika imene mumagwiritsa ntchito posunga zokolora zanu ndi iti?**	*select_one storage*
Unprotected pile	*1*
Heaped in house	*2*
Bags in house	*3*
Chitandala in house	*4*
Chitandala outside	*5*
Traditional nkhokwe	*6*
Improved nkhwokwe	*7*
Metalic silo	*8*
Other (specify)	*9*

2415. Specify storage method. **Nenani njira yosungira zokolora.**	*text*

2416. How much of the harvested _____ during the 2018/19 season is being stored by your household? **Ndi_____ chochuluka bwanji chimene munakolora mu 2018/19 chimene mukusunga pakhomo pano?**	*select_one cropunit*

2416. Shelled? **Kodi munasunga _____ chokonola kale?**	*select_one shelled*

2417. What did you do to protect the stored _____ ? **Kodi munapanga chani kuti muteteze _____ ?**	*select_multiple crop_protection*
Spraying	*1*
Smoking	*2*
Hired guard	*3*
Magic (kutsilika)	*4*
Did nothing	*5*
Other (specify)	*6*

2418. In general, when you store _____ , what is usually the purpose for storing it? **Kodi mukamasunga _____, cholinga chake chenicheni chosungira _____ chimakhala chani?**	*select_multiple storage_purpose*
Food for household	*1*

To sell at a higher price	*2*
Seed for planting	*3*
Render payments in-kind	*4*
Wait for arrival of buyer	*5*
Does not usually store	*6*
Other (specify)	*7*

2418. Specify purpose for storing _____ . **Nenani cholinga chosungira _____ .**	*text*

2501. Did you or anyone in your household own any livestock in the last 12 months? Mu miyezi khumi ndi iwiri yapitayi, **kodi inu kapena wina aliyense pakhomo pano anali ndi ziweto zina zilizonse?**	*select_one yes_no*
Yes	*1*
No	*0*

2502. What type of livestock did your household keep? **Kodi munaweta ziweto zanji?**	*select_multiple livestock*
Calf	*1*
Steer/heifer	*2*
Cow	*3*
Bull	*4*
Ox	*5*
Donkey/mule/horse	*6*
Goat	*7*
Sheep	*8*
Pig	*9*
Chicken layer/chicken broiler	*10*
Chicken -hen	*11*
Chicken- cock	*12*
Local-cock	*13*
Turkey/guinea fowl	*14*
Duck	*15*
Dove/pigeon	*16*
Other (specify)	*17*

2502. Specify livestock. **Nenani ziweto zina zimene munaweta**	*text*

2503. How many _____ are owned by your household now (present at your farm or away)? **Panopa muli ndi _____ zingati (pakhomo panu pano kapena kwina)?**	*integer*
Note: Record zero if none.	

2601. Did your household produce any _____? **Kodi munapezako zinthu izi kuchokera ku ziweto zimene mumaweta?**	*select_multiple lvstk_products*
Cow milk	*1*
Chicken eggs	*2*
Guinea fowl eggs	*3*
Meat	*4*
Skins and hides	*5*
Manure	*6*
Other (specify)	*7*

2602. During the last 7 days, how many days did your household produce any _____? **Pamasiku asanu ndi awiri apitawo, pakhomo panu pano munapezako _____ masiku angati?**	*integer*

2603. During the last 7 days, what was the average quantity of _____ produced per day? **Pamasiku asanu ndi awiri apitawo, kodi munapezeka _____ ochuluka bwanji patsiku?**	*select_one lvstk_unit*
Specify units. **Nenani kayezedwe ka mlingo**	*text*

2604. Did you sell any of the _____ that you produced in the last 7 days? **Kodi munagulitsako _____ amene munapeza kuchokera ku ziweto zanu mu masiku asanu ndi awiri apitawa?**	*select_one yes_no*
Yes	*1*
No	*0*

2605. How much of _____ produced did you sell in the last 7 days? **Munagulitsa _____ ochuluka bwanji pamasiku asanu ndi awiri apitawa?**	*select_one lvstk_unit*
Litre	*1*
Kilogram	*2*
Piece	*3*
Bucket	*4*
Wheelbarrow	*5*
Oxcart	*6*
Other (specify)	*7*
Specify units. **Nenani kayezedwe ka mlingo**	*text*

2606. What was the value of _____ sales during the past 7 days? **Kodi munapeza ndalama zingati mmasiku asanu ndi awiri apitawa mutagulitsa _____ ?**	*integer*

2607. Who in the household kept/decided on what to do with the earnings from _____ ? **Amasunga kapena kupanga ziganizo za kagwiritsidwe ntchito ka ndalama zochokera ku zogulitsa _____ ndi ndani pakhomo pano?**	*select_multiple family*
Family list	

2608. How much of _____ produced in your household did you consume in the last 7 days? **Kodi munagwiritsa ntchito _____ ochuluka bwanji pakhomo pano masiku asanu ndi iwiri apitawa?**	*decimal*

2608. How much of _____ produced did you consume in the last 7 days? **Kodi munagwiritsa ntchito _____ ochuluka bwanji pakhomo pano masiku asanu ndi iwiri apitawa?**	*select_one lvstk_unit*

2608. Specify units. **Nenani kayezedwe ka mlingo**	*text*

2609. How much of _____ produced in your household did you give out in the last 7 days as gifts of reimbursements for land, labor or any services received? Masiku asanu ndi awiri apitawo, **munagwiritsa ntchito _____ ochuluka bwanji ngati mphatso polipirira malo, antchito?**	*decimal*
Note: •Exclude reimbursements for inputs borrowed/acquired on credit •If nothing, record zero.	

2609. How much of _____ produced in your household did you give out in the last 7 days as gifts of reimbursements for land, labor or any services received? Masiku asanu ndi awiri apitawo**, munagwiritsa ntchito _____ ochuluka bwanji ngati mphatso polipirira malo, antchito?**	*select_one lvstk_unit*

2609. Specify units. **Nenani kayezedwe ka mlingo**	*text*

2610. How much of _____ produced in your household did you give out in the last 7 days as gifts of reimbursements for inputs borrowed or acquired on credit? Masiku asanu ndi awiri apitawo**, munagwiritsa ntchito _____ ochuluka bwanji kubweza ngongole?**	*decimal*
Note: If nothing, record zero	

2610. How much of _____ produced in your household did you give out in the last 7 days as gifts of reimbursements for inputs borrowed or acquired on credit? Masiku asanu ndi awiri apitawo, **munagwiritsa ntchito _____ ochuluka bwanji kubweza ngongole?**	*select_one lvstk_unit*

2610. Specify units. **Nenani kayezedwe ka mlingo**	*text*

2611. How much of _____ produced went bad/rotten and had to be thrown away? **Kodi ndi _____ zochuluka bwanji zimene zinaonongeka/kuoola ndipo zinatayidwa?**	*decimal*
Note: If nothing, record zero	

2611. How much of _____ produced went bad/rotten and had to be thrown away? **Kodi ndi _____ zochuluka bwanji zimene zinaonongeka/kuoola?**	*select_one lvstk_unit*

2611. Specify units. **Nenani kayezedwe ka mlingo**	*text*

2701. During the 2018/19 rainy season, did you or anyone in your household receive any advice on the following topics? **Mu ulimi wa 2018/19, kodi inu kapena wina aliyense wa mnyumba mwanu muno analandirako ulangizi pa nkhani izi?**	*select_multiple extn_topic*
New seed varieties	*1*
Pest control	*2*
Fertilizer use	*3*
Pit planting	*4*
Irrigation	*5*
Composting	*6*
Marketing/crop sales	*7*
Growing/selling tobacco	*8*
Access to credit	*9*
Forestry	*10*
General animal care	*11*
Animal diseases/vaccination	*12*
Fishery production	*13*
Contract farming	*14*
Agroforestry	*15*
Other (specify)	*16*
2701. Specify topic	*text*

2702. What were the sources of advice on _____ ? **Ulangizi wa _____ munaupeza munjira ziti/kwandani ?**	*select_multiple extn_source*
Gov. Agricultural Extension Service	*1*
Private Agricultural Extension Service	*2*
NGO	*3*
Agricultural coop/farmers' assoc	*4*

Fishing coop	*5*
Farmer field days/field school	*6*
Village agricultural extension meeting	*7*
Agricultural extension course	*8*
Lead farmer	*9*
Other farmer (Neighbour/relative)	*10*
Electronic media (TV, Radio, etc.)	*11*
Paper media (Handouts/flyers)	*12*
Other (specify)	*13*

2702. Specify source of extension. **Longosolani kumene kumachokera ulangizi**	*text*

2703. Did you follow the advice received on _____ ? **Kodi munautsatira ulangizi wa _____ 'wo?**	*select_one yes_no*
Yes	*1*
No	*0*

2704. Who in your household received advice/information through _____ during the last 12 months? **Ndi ndani pakhomo panu pano amene analandira ulangizi/uthenga kuchokera ku _____ mmiyezi khumi ndi iwiri (12) yapitayi?**	*select_multiple family*
Family list	

2705. Did the household member(s) request or otherwise demand the advice from _____? **Kodi munthu amene analandira ulangizi pakhomo panu pano kuchokera ku _____ anachita kupempha ulangiziwu?**	*select_one yes_no*
Yes	*1*
No	*0*

2706. How many times did someone from _____ visit your farm during the past 12 months? **Kodi munthu ochokera ku _____ anakuyenderani kangati mu miyezi khumi ndi iwiri (12) yapitayi?**	*integer*

2707. On average, how useful was advice/information received from _____? **Mukuona ngati ulangizi ochokera ku _____ unali othandiza bwanji?**	*select_one extn_usefulness*
Useless	*1*
Not very useful	*2*
Useful	*3*
Very useful	*4*

Enumerator: Explain the Funeral Discount insurance here: Make sure the respondent understands that the value of the coupon that they will get will be completely random.

2800. Coupon serial number	
2801. Coupon value	

THANK YOU FOR PARTICIPATING IN THIS EXERCISE	*endnote*
ZIKOMO KWAMBIRI POTENGA NAWO MBALI MU KAFUKUFUKUYU	

Annex G. Additional tables

Table A.1: Demographics by gender of household head

	N	Full sample	Male	Female	P-value
Household size	3,136	4.490	4.747	4.050	0.000
		(1.942)	(2.011)	(1.733)	
Dependency ratio	2,996	1.173	1.005	1.477	0.000
		(0.934)	(0.762)	(1.123)	
Age of the household head	3,134	41.428	39.349	44.983	0.000
		(17.359)	(16.036)	(18.898)	
Household head <25 years	3,127	0.157	0.157	0.159	0.918
		(0.364)	(0.364)	(0.365)	
Household head >64 years	3,127	0.133	0.098	0.194	0.000
		(0.340)	(0.298)	(0.395)	
Household head has some education	3,136	0.831	0.908	0.700	0.000
		(0.375)	(0.289)	(0.458)	
Highest level formal education in household (years)	3,136	7.832	8.351	6.944	0.000
		(3.345)	(3.214)	(3.379)	
Household head never married	3,136	0.013	0.008	0.023	0.007
		(0.115)	(0.090)	(0.149)	
Household head in monogamous marriage	3,136	0.639	0.889	0.212	0.000
		(0.480)	(0.315)	(0.409)	
Household head in polygamous marriage	3,136	0.055	0.066	0.035	0.005
		(0.227)	(0.249)	(0.184)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.2: Demographics by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Household size	3,136	4.490	3.127	4.923	3.817	0.000
		(1.942)	(0.962)	(1.918)	(1.997)	
Dependency ratio	2,996	1.173	0.847	1.160	1.824	0.000
		(0.934)	(0.754)	(0.864)	(1.320)	
Female-headed household	3,136	0.369	0.372	0.338	0.536	0.000
		(0.483)	(0.484)	(0.473)	(0.499)	
Household head has some education	3,136	0.831	0.943	0.861	0.539	0.000
		(0.375)	(0.233)	(0.346)	(0.499)	
Highest level formal education in household (years)	3,136	7.832	7.773	8.143	6.219	0.000
		(3.345)	(3.015)	(3.278)	(3.610)	
Household head never married	3,136	0.013	0.061	0.004	0.000	
		(0.115)	(0.240)	(0.065)	(0.000)	
Household head in monogamous marriage	3,136	0.639	0.754	0.654	0.431	0.000
		(0.480)	(0.431)	(0.476)	(0.496)	
Household head in polygamous marriage	3,136	0.055	0.016	0.065	0.038	0.000
		(0.227)	(0.126)	(0.247)	(0.192)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.3: Demographics by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Household size	3,136	4.490	5.145	4.228	2.826	0.000
		(1.942)	(1.880)	(1.676)	(1.317)	
Dependency ratio	2,996	1.173	1.344	1.120	0.672	0.000
		(0.934)	(0.937)	(0.938)	(0.704)	
Female-headed household	3,136	0.369	0.387	0.335	0.362	0.089
		(0.483)	(0.487)	(0.472)	(0.481)	
Age of the household head	3,134	41.428	41.723	40.711	41.569	0.571
		(17.359)	(16.653)	(17.739)	(18.896)	
Household head <25 years	3,127	0.157	0.136	0.177	0.194	0.014
		(0.364)	(0.343)	(0.382)	(0.396)	
Household head >64 years	3,127	0.133	0.124	0.141	0.152	0.356
		(0.340)	(0.330)	(0.348)	(0.359)	
Household head has some education	3,136	0.831	0.805	0.864	0.866	0.001
		(0.375)	(0.397)	(0.343)	(0.341)	
Highest level formal education in household (years)	3,136	7.832	7.566	8.146	8.199	0.002
		(3.345)	(2.957)	(3.393)	(4.233)	
Household head never married	3,136	0.013	0.010	0.008	0.032	0.069
		(0.115)	(0.100)	(0.090)	(0.176)	
Household head in monogamous marriage	3,136	0.639	0.651	0.662	0.569	0.001
		(0.480)	(0.477)	(0.473)	(0.496)	
Household head in polygamous marriage	3,136	0.055	0.061	0.060	0.027	0.005
		(0.227)	(0.240)	(0.238)	(0.161)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses. Poor households have total per capita consumption below the national poverty line of MWK179,377 but above the national food poverty line of MWK111,398. Ultra-poor households have total per capita consumption below the national food poverty line.

Table A.4: Demographics by disability status

	N	Full sample	Without disability	With disability	P-value
Household size	3,136	4.490	4.343	4.690	0.010
		(1.942)	(1.859)	(2.033)	
Dependency ratio	2,996	1.173	1.110	1.260	0.002
		(0.934)	(0.872)	(1.010)	
Female-headed household	3,136	0.369	0.341	0.407	0.031
		(0.483)	(0.474)	(0.491)	
Age of the household head	3,134	41.428	37.725	46.485	0.000
		(17.359)	(15.269)	(18.718)	
Household head <25 years	3,127	0.157	0.189	0.115	0.000
		(0.364)	(0.391)	(0.319)	
Household head >64 years	3,127	0.133	0.075	0.213	0.000
		(0.340)	(0.264)	(0.409)	
Household head has some education	3,136	0.831	0.859	0.794	0.000
		(0.375)	(0.348)	(0.405)	
Highest level formal education in household (years)	3,136	7.832	7.983	7.625	0.016
		(3.345)	(3.307)	(3.386)	
Household head never married	3,136	0.013	0.019	0.006	0.108
		(0.115)	(0.136)	(0.077)	
Household head in monogamous marriage	3,136	0.639	0.660	0.611	0.110
		(0.480)	(0.474)	(0.488)	
Household head in polygamous marriage	3,136	0.055	0.059	0.049	0.337
		(0.227)	(0.236)	(0.216)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.5: Demographics by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Household size	3,136	4.563	3.988	4.450	4.536	4.526	0.052
		(2.033)	(1.894)	(1.891)	(1.941)	(1.861)	
Dependency ratio	2,996	1.307	1.054	1.144	1.082	1.146	0.000
		(1.017)	(0.824)	(0.960)	(0.848)	(0.849)	
Female-headed household	3,136	0.450	0.396	0.327	0.346	0.323	0.000
		(0.498)	(0.490)	(0.469)	(0.476)	(0.468)	
Age of the household head	3,134	40.862	42.819	39.806	42.749	43.133	0.020
		(18.281)	(17.600)	(16.384)	(16.768)	(17.915)	
Household head <25 years	3,127	0.190	0.138	0.160	0.121	0.152	0.051
		(0.392)	(0.346)	(0.367)	(0.327)	(0.359)	
Household head >64 years	3,127	0.134	0.134	0.106	0.138	0.178	0.037
		(0.341)	(0.341)	(0.308)	(0.345)	(0.383)	
Household head has some education	3,136	0.793	0.784	0.862	0.861	0.814	0.014
		(0.405)	(0.412)	(0.345)	(0.346)	(0.390)	
Highest level formal education in household (years)	3,136	7.337	7.354	8.037	8.353	7.740	0.106
		(3.413)	(3.804)	(3.069)	(3.433)	(3.285)	
Household head never married	3,136	0.026	0.012	0.006	0.009	0.011	0.561
		(0.160)	(0.109)	(0.077)	(0.096)	(0.103)	
Household head in monogamous marriage	3,136	0.582	0.594	0.672	0.627	0.714	0.002
		(0.493)	(0.492)	(0.470)	(0.484)	(0.452)	
Household head in polygamous marriage	3,136	0.072	0.022	0.057	0.048	0.038	0.032
		(0.258)	(0.147)	(0.233)	(0.215)	(0.192)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.6: Disabilities by gender of household head

	N	Full sample	Male	Female	P-value
Household has a member with					
difficulty seeing, even if wearing glasses	3,136	0.145	0.101	0.220	0.000
		(0.429)	(0.365)	(0.512)	
difficulty hearing, even if using hearing aid	3,135	0.050	0.041	0.066	0.042
		(0.258)	(0.238)	(0.290)	
difficulty walking or climbing steps	3,136	0.133	0.087	0.212	0.000
		(0.418)	(0.346)	(0.509)	
difficulty remembering or concentrating	3,136	0.076	0.049	0.123	0.000
		(0.306)	(0.258)	(0.371)	
difficulty with self-care e.g. washing or dressing	3,135	0.019	0.012	0.030	0.036
		(0.154)	(0.123)	(0.197)	
difficulty communicating	3,134	0.017	0.015	0.023	0.313
		(0.162)	(0.155)	(0.173)	
albinism	3,135	0.004	0.005	0.002	0.125
		(0.062)	(0.071)	(0.040)	
any disability	3,136	0.423	0.398	0.467	0.032
		(0.494)	(0.490)	(0.499)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.7: Disabilities by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Household has a member with						
difficulty seeing, even if wearing glasses	3,136	0.145	0.048	0.116	0.410	0.000
		(0.429)	(0.258)	(0.381)	(0.664)	
difficulty hearing, even if using hearing aid	3,135	0.050	0.020	0.034	0.174	0.000
		(0.258)	(0.143)	(0.214)	(0.465)	
difficulty walking or climbing steps	3,136	0.133	0.020	0.093	0.478	0.000
		(0.418)	(0.176)	(0.351)	(0.688)	
difficulty remembering or concentrating	3,136	0.076	0.033	0.064	0.195	0.000
		(0.306)	(0.211)	(0.279)	(0.471)	
difficulty with self-care e.g. washing or dressing	3,135	0.019	0.003	0.009	0.086	0.000
		(0.154)	(0.052)	(0.111)	(0.324)	
difficulty communicating	3,134	0.017	0.009	0.011	0.064	0.011
		(0.162)	(0.119)	(0.139)	(0.275)	
Albinism	3,135	0.004	0.006	0.004	0.001	0.105
		(0.062)	(0.077)	(0.063)	(0.028)	
any disability	3,136	0.423	0.308	0.401	0.675	0.000
		(0.494)	(0.462)	(0.490)	(0.469)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.8: Disabilities by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Household has a member with						
difficulty seeing, even if wearing glasses	3,136	0.145	0.138	0.122	0.199	0.075
		(0.429)	(0.417)	(0.396)	(0.502)	
difficulty hearing, even if using hearing aid	3,135	0.050	0.050	0.040	0.065	0.346
		(0.258)	(0.263)	(0.210)	(0.304)	
difficulty walking or climbing steps	3,136	0.133	0.136	0.128	0.134	0.906
		(0.418)	(0.428)	(0.409)	(0.396)	
difficulty remembering or concentrating	3,136	0.076	0.081	0.065	0.078	0.586
		(0.306)	(0.313)	(0.298)	(0.296)	
difficulty with self-care e.g. washing or dressing	3,135	0.019	0.022	0.019	0.008	0.086
		(0.154)	(0.162)	(0.172)	(0.088)	
difficulty communicating	3,134	0.017	0.019	0.012	0.020	0.513
		(0.162)	(0.179)	(0.110)	(0.170)	
Albinism	3,135	0.004	0.003	0.006	0.002	0.487
		(0.062)	(0.058)	(0.078)	(0.045)	
any disability	3,136	0.423	0.418	0.434	0.422	0.840
		(0.494)	(0.493)	(0.496)	(0.494)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.9: Disabilities by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Household has a member with							
difficulty seeing, even if wearing glasses	3,136	0.134	0.097	0.160	0.143	0.153	0.378
		(0.421)	(0.305)	(0.441)	(0.452)	(0.418)	
difficulty hearing, even if using hearing aid	3,135	0.046	0.077	0.037	0.063	0.054	0.493
		(0.241)	(0.271)	(0.223)	(0.310)	(0.262)	
difficulty walking or climbing steps	3,136	0.124	0.077	0.124	0.138	0.180	0.069
		(0.394)	(0.334)	(0.392)	(0.434)	(0.499)	
difficulty remembering or concentrating	3,136	0.092	0.083	0.052	0.072	0.098	0.059
		(0.326)	(0.294)	(0.250)	(0.309)	(0.359)	
difficulty with self-care e.g. washing or dressing	3,135	0.014	0.005	0.016	0.025	0.026	0.131
		(0.126)	(0.072)	(0.140)	(0.195)	(0.177)	
difficulty communicating	3,134	0.020	0.009	0.014	0.020	0.018	0.771
		(0.173)	(0.096)	(0.163)	(0.177)	(0.132)	
Albinism	3,135	0.006	0.005	0.004	0.003	0.001	0.515
		(0.075)	(0.071)	(0.064)	(0.052)	(0.036)	
any disability	3,136	0.430	0.432	0.466	0.365	0.412	0.026
		(0.495)	(0.496)	(0.499)	(0.482)	(0.493)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.10: Wealth by gender of household head

	N	Full sample	Male	Female	P-value
Durable asset index scores	3,136	0.058	0.214	-0.210	0.000
		(1.290)	(1.411)	(0.994)	
Total value of all household durable assets ('000,000 MWK)	3,136	0.064	0.088	0.023	0.000
		(0.184)	(0.220)	(0.076)	
Agricultural asset index scores	3,136	0.031	0.242	-0.331	0.000
		(1.365)	(1.426)	(1.170)	
Tropical Livestock Units	3,136	0.132	0.165	0.075	0.000
		(0.476)	(0.561)	(0.265)	
At least one household member has a bank account	3,134	0.229	0.246	0.202	0.008
		(0.421)	(0.431)	(0.401)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.11: Wealth by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Durable asset index scores	3,136	0.058	-0.156	0.145	-0.148	0.000
		(1.290)	(0.916)	(1.357)	(1.241)	
Total value of all household durable assets ('000,000 MWK)	3,136	0.064	0.042	0.074	0.040	0.000
		(0.184)	(0.153)	(0.197)	(0.135)	
Agricultural asset index scores	3,136	0.031	-0.589	0.158	0.079	0.000
		(1.365)	(0.971)	(1.393)	(1.420)	
Tropical Livestock Units	3,136	0.132	0.025	0.155	0.136	0.000
		(0.476)	(0.082)	(0.518)	(0.505)	
At least one household member has a bank account	3,134	0.229	0.178	0.259	0.138	0.000
		(0.421)	(0.383)	(0.438)	(0.345)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.12: Wealth by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Durable asset index scores	3,136	0.058	-0.240	0.270	0.673	0.000
		(1.290)	(1.013)	(1.414)	(1.563)	
Total value of all household durable assets ('000,000 MWK)	3,136	0.064	0.035	0.078	0.133	0.000
		(0.184)	(0.133)	(0.184)	(0.277)	
Agricultural asset index scores	3,136	0.031	-0.167	0.298	0.255	0.000
		(1.365)	(1.275)	(1.476)	(1.369)	
Tropical Livestock Units	3,136	0.132	0.089	0.170	0.210	0.001
		(0.476)	(0.249)	(0.465)	(0.864)	
At least one household member has a bank account	3,134	0.229	0.174	0.283	0.324	0.000
		(0.421)	(0.379)	(0.451)	(0.468)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.13: Wealth by disability status

	N	Full sample	Without disability	With disability	P-value
Durable asset index scores	3,136	0.058	0.043	0.077	0.591
		(1.290)	(1.244)	(1.350)	
Total value of all household durable assets ('000,000 MWK)	3,136	0.064	0.067	0.060	0.449
		(0.184)	(0.195)	(0.168)	
Agricultural asset index scores	3,136	0.031	-0.045	0.135	0.006
		(1.365)	(1.298)	(1.445)	
Tropical Livestock Units	3,136	0.132	0.144	0.115	0.241
		(0.476)	(0.545)	(0.362)	
At least one household member has a bank account	3,134	0.229	0.228	0.231	0.911
		(0.421)	(0.420)	(0.421)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.14: Wealth by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Durable asset index scores	3,136	0.037	0.003	0.059	0.129	0.006	0.775
		(1.178)	(1.139)	(1.319)	(1.429)	(1.260)	
Total value of all household durable assets ('000,000 MWK)	3,136	0.068	0.057	0.056	0.085	0.043	0.068
		(0.209)	(0.164)	(0.147)	(0.219)	(0.137)	
Agricultural asset index scores	3,136	-0.238	0.022	0.136	0.157	0.145	0.000
		(1.205)	(1.189)	(1.417)	(1.422)	(1.446)	
Tropical Livestock Units	3,136	0.077	0.061	0.176	0.174	0.110	0.000
		(0.335)	(0.190)	(0.662)	(0.438)	(0.374)	
At least one household member has a bank account	3,134	0.229	0.259	0.259	0.232	0.159	0.003
		(0.421)	(0.439)	(0.438)	(0.423)	(0.366)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.15: Agricultural production by gender of household head

	N	Full sample	Male	Female	P-value
Engaged in farming	3,136	0.939	0.935	0.947	0.261
		(0.239)	(0.247)	(0.224)	
Number of plots owned or managed	3,048	1.596	1.686	1.444	0.000
		(0.896)	(0.959)	(0.755)	
Plot area (acres)	2,985	1.136	1.049	1.284	0.367
		(9.733)	(1.107)	(15.902)	
Number of crops grown	2,985	1.643	1.734	1.487	0.000
		(0.867)	(0.930)	(0.724)	
One crop grown	2,985	0.534	0.487	0.614	0.000
		(0.499)	(0.500)	(0.487)	
Two crops grown	2,985	0.337	0.354	0.309	0.044
		(0.473)	(0.478)	(0.462)	
Crop diversity (Simpson's Index)	2,947	0.451	0.454	0.445	0.657
		(0.410)	(0.412)	(0.407)	
Food crops grown					
Maize	2,985	0.988	0.985	0.992	0.054
		(0.110)	(0.120)	(0.089)	
Pumpkin leaves	2,985	0.098	0.092	0.107	0.042
		(0.297)	(0.289)	(0.309)	
Sorghum	2,985	0.093	0.095	0.088	-0.038
		(0.290)	(0.294)	(0.284)	
Groundnuts	2,985	0.130	0.123	0.142	0.044
		(0.337)	(0.329)	(0.349)	
Pearl millet	2,985	0.028	0.030	0.023	-0.020
		(0.164)	(0.171)	(0.150)	
Sweet potato	2,985	0.013	0.015	0.011	-0.020
		(0.115)	(0.120)	(0.105)	
Rice	2,985	0.064	0.074	0.046	-0.063
		(0.245)	(0.262)	(0.210)	
Cassava	2,985	0.021	0.027	0.012	-0.130
		(0.144)	(0.161)	(0.109)	
Cash crops grown					
Pigeon pea	2,985	0.583	0.591	0.568	0.469
		(0.493)	(0.492)	(0.496)	
Sunflower	2,985	0.059	0.054	0.068	0.387

		(0.236)	(0.226)	(0.251)	
Soybean	2,985	0.061	0.068	0.050	0.132
		(0.240)	(0.252)	(0.218)	
Tobacco	2,985	0.064	0.089	0.022	0.000
		(0.245)	(0.285)	(0.147)	
Cotton	2,985	0.025	0.026	0.023	0.410
		(0.155)	(0.159)	(0.149)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.16: Agricultural production by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Engaged in farming	3,136	0.939	0.863	0.958	0.934	0.000
		(0.239)	(0.344)	(0.201)	(0.248)	
Number of plots owned or managed	3,048	1.596	1.318	1.662	1.546	0.000
		(0.896)	(0.661)	(0.915)	(0.956)	
Plot area (acres)	2,985	1.136	0.949	1.177	1.120	0.199
		(9.733)	(1.099)	(11.445)	(1.050)	
Number of crops grown	2,985	1.643	1.385	1.701	1.602	0.000
		(0.867)	(0.606)	(0.890)	(0.927)	
One crop grown	2,985	0.534	0.676	0.499	0.569	0.000
		(0.499)	(0.468)	(0.500)	(0.496)	
Two crops grown	2,985	0.337	0.266	0.355	0.324	0.006
		(0.473)	(0.443)	(0.479)	(0.469)	
Crop diversity (Simpson's Index)	2,947	0.451	0.423	0.460	0.436	0.383
		(0.410)	(0.407)	(0.411)	(0.406)	
Food crops grown						
Maize	2,985	0.988	0.975	0.989	0.994	0.120
		(0.110)	(0.155)	(0.104)	(0.078)	
Pumpkin leaves	2,985	0.098	0.101	0.098	0.092	0.907
		(0.297)	(0.302)	(0.297)	(0.289)	
Sorghum	2,985	0.093	0.080	0.091	0.118	0.291
		(0.290)	(0.272)	(0.287)	(0.323)	
Groundnuts	2,985	0.130	0.122	0.139	0.090	0.049
		(0.337)	(0.328)	(0.347)	(0.286)	
Pearl millet	2,985	0.028	0.028	0.030	0.017	0.427
		(0.164)	(0.166)	(0.170)	(0.128)	
Sweet potato	2,985	0.013	0.011	0.014	0.012	0.868
		(0.115)	(0.105)	(0.118)	(0.108)	

Rice	2,985	0.064	0.036	0.071	0.056	0.103
		(0.245)	(0.186)	(0.257)	(0.231)	
Cassava	2,985	0.021	0.026	0.022	0.013	0.246
		(0.144)	(0.159)	(0.146)	(0.112)	
Cash crops grown						
Pigeon pea	2,985	0.583	0.509	0.598	0.576	0.060
		(0.493)	(0.500)	(0.490)	(0.495)	
Sunflower	2,985	0.059	0.039	0.062	0.066	0.195
		(0.236)	(0.193)	(0.242)	(0.248)	
Soybean	2,985	0.061	0.056	0.064	0.053	0.515
		(0.240)	(0.230)	(0.245)	(0.224)	
Tobacco	2,985	0.064	0.054	0.072	0.031	0.011
		(0.245)	(0.227)	(0.258)	(0.173)	
Cotton	2,985	0.025	0.013	0.027	0.028	0.123
		(0.155)	(0.113)	(0.161)	(0.166)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.17: Agricultural production by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Engaged in farming	3,136	0.939	0.882	0.948	0.958	0.030
		(0.239)	(0.323)	(0.221)	(0.200)	
Number of plots owned or managed	3,048	1.596	1.619	1.704	1.526	0.004
		(0.896)	(0.951)	(1.008)	(0.795)	
Plot area (acres)	2,985	1.136	1.088	1.049	1.204	0.701
		(9.733)	(1.019)	(1.221)	(13.559)	
Number of crops grown	2,985	1.643	1.717	1.742	1.557	0.002
		(0.867)	(0.890)	(0.986)	(0.773)	
One crop grown	2,985	0.534	0.485	0.482	0.582	0.006
		(0.499)	(0.500)	(0.500)	(0.493)	
Two crops grown	2,985	0.337	0.360	0.375	0.307	0.024
		(0.473)	(0.480)	(0.484)	(0.461)	
Crop diversity (Simpson's Index)	2,947	0.451	0.458	0.438	0.455	0.792
		(0.410)	(0.413)	(0.413)	(0.407)	
Food crops grown						
Maize	2,985	0.988	0.982	0.994	0.987	0.050
		(0.110)	(0.134)	(0.077)	(0.114)	
Pumpkin leaves	2,985	0.098	0.120	0.099	0.088	0.250
		(0.297)	(0.326)	(0.299)	(0.283)	

Groundnuts	2,985	0.093	0.095	0.090	0.094	0.941
		(0.290)	(0.293)	(0.287)	(0.291)	
Sorghum	2,985	0.130	0.212	0.148	0.088	0.000
		(0.337)	(0.409)	(0.356)	(0.284)	
Pearl millet	2,985	0.028	0.034	0.033	0.022	0.612
		(0.164)	(0.182)	(0.180)	(0.146)	
Sweet potato	2,985	0.013	0.014	0.015	0.012	0.924
		(0.115)	(0.117)	(0.120)	(0.111)	
Rice	2,985	0.064	0.078	0.067	0.057	0.559
		(0.245)	(0.268)	(0.250)	(0.232)	
Cassava	2,985	0.021	0.032	0.032	0.011	0.028
		(0.144)	(0.175)	(0.176)	(0.104)	
Cash crops grown						
Pigeon pea	2,985	0.583	0.637	0.617	0.542	0.006
		(0.493)	(0.481)	(0.486)	(0.498)	
Sunflower	2,985	0.059	0.057	0.067	0.055	0.637
		(0.236)	(0.233)	(0.250)	(0.229)	
Soybean	2,985	0.061	0.078	0.057	0.057	0.442
		(0.240)	(0.269)	(0.232)	(0.233)	
Tobacco	2,985	0.064	0.048	0.088	0.057	0.034
		(0.245)	(0.214)	(0.284)	(0.232)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.18: Agricultural production by disability status

	N	Full sample	Without disability	With disability	P-value
Engaged in farming	3,136	0.939	0.938	0.941	-0.001
		(0.239)	(0.241)	(0.236)	
Number of plots owned or managed	3,048	1.596	1.547	1.662	0.146
		(0.896)	(0.876)	(0.920)	
Plot area (acres)	2,985	1.136	1.158	1.106	-0.028
		(9.733)	(12.796)	(1.001)	
Number of crops grown	2,985	1.643	1.592	1.711	0.158
		(0.867)	(0.848)	(0.887)	
One crop grown	2,985	0.534	0.568	0.488	-0.171
		(0.499)	(0.496)	(0.500)	
Two crops grown	2,985	0.337	0.311	0.372	0.114
		(0.473)	(0.463)	(0.484)	
Crop diversity (Simpson's Index)	2,947	0.451	0.455	0.445	-0.037

		(0.410)	(0.410)	(0.410)	
Food crops grown					
Maize	2,985	0.988	0.986	0.990	-0.003
		(0.110)	(0.117)	(0.099)	
Pumpkin leaves	2,985	0.098	0.102	0.092	-0.031
		(0.297)	(0.303)	(0.289)	
Sorghum	2,985	0.093	0.087	0.100	0.024
		(0.290)	(0.283)	(0.300)	
Groundnuts	2,985	0.130	0.129	0.132	0.020
		(0.337)	(0.335)	(0.339)	
Pearl millet	2,985	0.028	0.027	0.029	0.020
		(0.164)	(0.161)	(0.168)	
Sweet potato	2,985	0.013	0.012	0.015	0.021
		(0.115)	(0.110)	(0.120)	
Rice	2,985	0.064	0.076	0.047	-0.062
		(0.245)	(0.265)	(0.213)	
Cassava	2,985	0.021	0.028	0.012	-0.061
		(0.144)	(0.164)	(0.110)	
Cash crops grown					
Pigeon pea	2,985	0.583	0.588	0.575	-0.066
		(0.493)	(0.492)	(0.495)	
Sunflower	2,985	0.059	0.060	0.058	-0.010
		(0.236)	(0.237)	(0.234)	
Soybean	2,985	0.061	0.065	0.057	0.002
		(0.240)	(0.246)	(0.231)	
Tobacco	2,985	0.064	0.055	0.077	0.064
		(0.245)	(0.228)	(0.267)	
Cotton	2,985	0.025	0.023	0.028	0.028
		(0.155)	(0.148)	(0.164)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.19: Agricultural production by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Engaged in farming	3,136	0.911	0.865	0.936	0.983	0.958	0.000
		(0.285)	(0.342)	(0.245)	(0.129)	(0.200)	
Number of plots owned or managed	3,048	1.211	1.185	1.828	1.862	1.607	0.000
		(0.577)	(0.684)	(0.885)	(1.105)	(0.810)	
Plot area (acres)	2,985	1.177	1.101	0.938	1.025	1.619	0.000

		(0.710)	(0.617)	(0.911)	(1.012)	(24.762)	
Number of crops grown	2,985	1.279	1.331	1.841	1.872	1.656	0.000
		(0.514)	(0.583)	(0.875)	(1.100)	(0.771)	
One crop grown	2,985	0.749	0.723	0.410	0.427	0.492	0.000
		(0.434)	(0.448)	(0.492)	(0.495)	(0.500)	
Two crops grown	2,985	0.226	0.228	0.392	0.385	0.390	0.000
		(0.418)	(0.420)	(0.489)	(0.487)	(0.488)	
Crop diversity (Simpson's Index)	2,947	0.451	0.466	0.441	0.450	0.465	0.969
		(0.409)	(0.406)	(0.404)	(0.420)	(0.409)	
Food crops grown							
Maize	2,985	0.991	0.993	0.979	0.994	0.987	0.228
		(0.093)	(0.083)	(0.144)	(0.075)	(0.115)	
Pumpkin leaves	2,985	0.137	0.125	0.041	0.147	0.050	0.000
		(0.344)	(0.331)	(0.199)	(0.354)	(0.218)	
Sorghum	2,985	0.021	0.004	0.130	0.121	0.135	0.000
		(0.142)	(0.059)	(0.336)	(0.327)	(0.343)	
Groundnuts	2,985	0.107	0.220	0.142	0.202	0.012	0.000
		(0.309)	(0.415)	(0.350)	(0.402)	(0.108)	
Pearl millet	2,985	0.007	0.000	0.022	0.075	0.010	
		(0.084)	(0.000)	(0.147)	(0.263)	(0.100)	
Sweet potato	2,985	0.002	0.016	0.017	0.028	0.003	0.002
		(0.047)	(0.124)	(0.129)	(0.164)	(0.057)	
Rice	2,985	0.012	0.049	0.048	0.137	0.080	0.000
		(0.107)	(0.216)	(0.213)	(0.344)	(0.271)	
Cassava	2,985	0.008	0.124	0.006	0.036	0.018	0.015
		(0.091)	(0.330)	(0.079)	(0.187)	(0.133)	
Cash crops grown							
Pigeon pea	2,985	0.366	0.478	0.580	0.784	0.693	0.000
		(0.482)	(0.501)	(0.494)	(0.412)	(0.462)	
Soybean	2,985	0.000	0.000	0.151	0.062	0.005	
		(0.000)	(0.000)	(0.358)	(0.241)	(0.074)	
Tobacco	2,985	0.000	0.007	0.084	0.143	0.018	0.000
		(0.000)	(0.082)	(0.277)	(0.351)	(0.135)	
Sunflower	2,985	0.001	0.000	0.169	0.045	0.030	
		(0.025)	(0.000)	(0.375)	(0.206)	(0.172)	
Cotton	2,985	0.075	0.078	0.002	0.000	0.000	
		(0.264)	(0.269)	(0.046)	(0.000)	(0.000)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.20: Agricultural technology by gender of household head

	N	Full sample	Male	Female	P-value
Used some fertilizer	2,985	0.820	0.840	0.786	0.012
		(0.384)	(0.367)	(0.410)	
Used manure	2,985	0.418	0.406	0.439	0.138
		(0.455)	(0.448)	(0.468)	
Used inorganic fertilizer	2,984	0.556	0.582	0.512	0.005
		(0.453)	(0.442)	(0.466)	
Used pesticides	2,983	0.091	0.109	0.060	0.000
		(0.257)	(0.277)	(0.215)	
Employed casual laborers	2,984	0.143	0.156	0.120	0.018
		(0.322)	(0.332)	(0.302)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.21: Agricultural technology by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Used some fertilizer	2,985	0.820	0.790	0.839	0.749	0.003
		(0.384)	(0.408)	(0.368)	(0.434)	
Used manure	2,985	0.418	0.470	0.417	0.368	0.043
		(0.455)	(0.478)	(0.453)	(0.440)	
Used inorganic fertilizer	2,984	0.556	0.490	0.570	0.545	0.039
		(0.453)	(0.476)	(0.446)	(0.454)	
Used pesticides	2,983	0.091	0.088	0.100	0.047	0.000
		(0.257)	(0.265)	(0.266)	(0.184)	
Employed casual laborers	2,984	0.143	0.079	0.156	0.143	0.000
		(0.322)	(0.246)	(0.333)	(0.324)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.22: Agricultural technology by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Used some fertilizer	2,985	0.820	0.770	0.857	0.895	0.000
		(0.384)	(0.421)	(0.350)	(0.307)	
Used manure	2,985	0.418	0.430	0.423	0.380	0.340
		(0.455)	(0.459)	(0.458)	(0.439)	
Used inorganic fertilizer	2,984	0.556	0.480	0.605	0.680	0.000
		(0.453)	(0.460)	(0.434)	(0.421)	
Used pesticides	2,983	0.091	0.071	0.107	0.118	0.003
		(0.257)	(0.226)	(0.274)	(0.299)	
Employed casual laborers	2,984	0.143	0.058	0.162	0.335	0.000
		(0.322)	(0.211)	(0.333)	(0.433)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.23: Agricultural technology by disability status

	N	Full sample	Without disability	With disability	P-value
Used some fertilizer	2,985	0.820	0.816	0.825	0.582
		(0.384)	(0.387)	(0.380)	
Used manure	2,985	0.418	0.412	0.426	0.503
		(0.455)	(0.461)	(0.448)	
Used inorganic fertilizer	2,984	0.556	0.558	0.553	0.775
		(0.453)	(0.456)	(0.448)	
Used pesticides	2,983	0.091	0.085	0.099	0.324
		(0.257)	(0.251)	(0.264)	
Employed casual laborers	2,984	0.143	0.148	0.137	0.492
		(0.322)	(0.332)	(0.307)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.24: Agricultural technology by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Used some fertilizer	2,985	0.743	0.845	0.857	0.901	0.754	0.000
		(0.437)	(0.363)	(0.350)	(0.299)	(0.431)	
Used manure	2,985	0.518	0.512	0.399	0.379	0.311	0.000
		(0.481)	(0.469)	(0.439)	(0.436)	(0.427)	
Used inorganic fertilizer	2,984	0.410	0.534	0.602	0.678	0.547	0.000
		(0.472)	(0.469)	(0.434)	(0.395)	(0.459)	
Used pesticides	2,983	0.037	0.016	0.130	0.105	0.115	0.000
		(0.160)	(0.105)	(0.295)	(0.279)	(0.292)	
Employed casual laborers	2,984	0.118	0.163	0.125	0.193	0.137	0.137
		(0.307)	(0.349)	(0.292)	(0.363)	(0.316)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.25: Agricultural extension by gender of household head

	N	Full sample	Male	Female	P-value
Received any extension messages	3,136	0.479	0.472	0.491	0.366
		(0.500)	(0.499)	(0.500)	
Received extension message(s) on:					
New seed varieties	3,136	0.086	0.085	0.088	0.834
		(0.281)	(0.279)	(0.283)	
Pest control	3,136	0.114	0.111	0.119	0.592
		(0.318)	(0.315)	(0.324)	
Fertilizer use	3,136	0.067	0.067	0.067	0.992
		(0.251)	(0.251)	(0.251)	
Pit planting	3,136	0.050	0.049	0.051	0.897
		(0.217)	(0.216)	(0.219)	
Irrigation	3,136	0.066	0.065	0.068	0.832
		(0.249)	(0.247)	(0.252)	
Composting	3,136	0.250	0.237	0.274	0.077
		(0.433)	(0.425)	(0.446)	
Marketing/crop sales	3,136	0.007	0.007	0.007	0.986
		(0.086)	(0.086)	(0.086)	
Growing/selling tobacco	3,136	0.009	0.012	0.005	0.030
		(0.097)	(0.109)	(0.069)	
Access to credit	3,136	0.010	0.006	0.016	0.235
		(0.097)	(0.077)	(0.124)	
Forestry	3,136	0.034	0.037	0.029	0.370
		(0.182)	(0.190)	(0.169)	
General animal care	3,136	0.020	0.023	0.015	0.218
		(0.141)	(0.151)	(0.122)	
Animal diseases/vaccination	3,136	0.018	0.018	0.017	0.890
		(0.132)	(0.133)	(0.130)	
Fishery production	3,136	0.001	0.001	0.001	0.861
		(0.031)	(0.032)	(0.029)	
Contract farming	3,136	0.002	0.003	0.001	0.235
		(0.044)	(0.051)	(0.027)	
Agroforestry	3,136	0.033	0.036	0.028	0.340
		(0.179)	(0.187)	(0.166)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.26: Agricultural extension by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Received any extension messages	3,136	0.479	0.428	0.497	0.449	0.039
		(0.500)	(0.495)	(0.500)	(0.498)	
Received extension message(s) on:						
New seed varieties	3,136	0.086	0.066	0.094	0.068	0.144
		(0.281)	(0.248)	(0.292)	(0.251)	
Pest control	3,136	0.114	0.097	0.120	0.098	0.347
		(0.318)	(0.297)	(0.325)	(0.297)	
Fertilizer use	3,136	0.067	0.067	0.065	0.079	0.751
		(0.251)	(0.249)	(0.247)	(0.271)	
Pit planting	3,136	0.050	0.043	0.046	0.079	0.125
		(0.217)	(0.204)	(0.209)	(0.270)	
Irrigation	3,136	0.066	0.067	0.063	0.083	0.491
		(0.249)	(0.251)	(0.242)	(0.276)	
Composting	3,136	0.250	0.232	0.260	0.220	0.175
		(0.433)	(0.422)	(0.439)	(0.415)	
Marketing/crop sales	3,136	0.007	0.004	0.007	0.013	0.493
		(0.086)	(0.064)	(0.084)	(0.115)	
Growing/selling tobacco	3,136	0.009	0.005	0.011	0.008	0.604
		(0.097)	(0.073)	(0.102)	(0.090)	
Access to credit	3,136	0.010	0.003	0.010	0.017	0.181
		(0.097)	(0.056)	(0.098)	(0.131)	
Forestry	3,136	0.034	0.033	0.034	0.036	0.984
		(0.182)	(0.178)	(0.181)	(0.186)	
General animal care	3,136	0.020	0.014	0.022	0.016	0.601
		(0.141)	(0.119)	(0.148)	(0.127)	
Animal diseases/vaccination	3,136	0.018	0.004	0.021	0.018	0.002
		(0.132)	(0.066)	(0.142)	(0.134)	
Fishery production	3,136	0.001	0.000	0.001	0.000	
		(0.031)	(0.000)	(0.037)	(0.000)	
Contract farming	3,136	0.002	0.001	0.001	0.009	0.397
		(0.044)	(0.032)	(0.025)	(0.095)	
Agroforestry	3,136	0.033	0.018	0.038	0.028	0.017
		(0.179)	(0.131)	(0.191)	(0.165)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.27: Agricultural extension by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Received any extension messages	3,136	0.479	0.458	0.536	0.463	0.003
		(0.500)	(0.498)	(0.499)	(0.499)	
Received extension message(s) on:						
New seed varieties	3,136	0.086	0.081	0.094	0.090	0.650
		(0.281)	(0.273)	(0.292)	(0.286)	
Pest control	3,136	0.114	0.110	0.115	0.127	0.755
		(0.318)	(0.313)	(0.319)	(0.334)	
Fertilizer use	3,136	0.067	0.059	0.082	0.072	0.142
		(0.251)	(0.236)	(0.274)	(0.259)	
Pit planting	3,136	0.050	0.042	0.076	0.035	0.004
		(0.217)	(0.200)	(0.264)	(0.185)	
Irrigation	3,136	0.066	0.059	0.094	0.048	0.040
		(0.249)	(0.235)	(0.293)	(0.215)	
Composting	3,136	0.250	0.250	0.273	0.217	0.132
		(0.433)	(0.433)	(0.446)	(0.413)	
Marketing/crop sales	3,136	0.007	0.007	0.007	0.009	0.929
		(0.086)	(0.083)	(0.084)	(0.096)	
Growing/selling tobacco	3,136	0.009	0.011	0.010	0.003	0.150
		(0.097)	(0.105)	(0.102)	(0.052)	
Access to credit	3,136	0.010	0.009	0.012	0.007	0.548
		(0.097)	(0.096)	(0.108)	(0.084)	
Forestry	3,136	0.034	0.029	0.043	0.038	0.386
		(0.182)	(0.168)	(0.204)	(0.191)	
General animal care	3,136	0.020	0.019	0.025	0.017	0.663
		(0.141)	(0.138)	(0.155)	(0.128)	
Animal diseases/vaccination	3,136	0.018	0.017	0.018	0.020	0.926
		(0.132)	(0.129)	(0.133)	(0.140)	
Fishery production	3,136	0.001	0.001	0.000	0.002	
		(0.031)	(0.034)	(0.000)	(0.041)	
Contract farming	3,136	0.002	0.003	0.001	0.002	0.647
		(0.044)	(0.050)	(0.031)	(0.039)	
Agroforestry	3,136	0.033	0.023	0.046	0.046	0.120
		(0.179)	(0.151)	(0.209)	(0.210)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.28: Agricultural extension by disability status

	N	Full sample	Without disability	With disability	P-value
Received any extension messages	3,136	0.479	0.468	0.496	0.264
		(0.500)	(0.499)	(0.500)	
Received extension message(s) on:					
New seed varieties	3,136	0.086	0.096	0.073	0.019
		(0.281)	(0.294)	(0.260)	
Pest control	3,136	0.114	0.107	0.124	0.219
		(0.318)	(0.309)	(0.330)	
Fertilizer use	3,136	0.067	0.073	0.059	0.244
		(0.251)	(0.261)	(0.235)	
Pit planting	3,136	0.050	0.052	0.046	0.468
		(0.217)	(0.223)	(0.209)	
Irrigation	3,136	0.066	0.045	0.096	0.004
		(0.249)	(0.206)	(0.295)	
Composting	3,136	0.250	0.232	0.276	0.052
		(0.433)	(0.422)	(0.447)	
Marketing/crop sales	3,136	0.007	0.005	0.011	0.108
		(0.086)	(0.069)	(0.105)	
Growing/selling tobacco	2,985	0.035	0.026	0.047	0.065
		(0.183)	(0.160)	(0.211)	
Access to credit	3,136	0.010	0.009	0.010	0.760
		(0.097)	(0.095)	(0.101)	
Forestry	3,136	0.034	0.024	0.049	0.005
		(0.182)	(0.153)	(0.215)	
General animal care	3,136	0.020	0.018	0.023	0.483
		(0.141)	(0.134)	(0.150)	
Animal diseases/vaccination	3,136	0.018	0.016	0.020	0.478
		(0.132)	(0.126)	(0.140)	
Fishery production	3,136	0.001	0.001	0.001	0.752
		(0.031)	(0.034)	(0.027)	
Contract farming	3,136	0.002	0.002	0.002	0.735
		(0.044)	(0.047)	(0.039)	
Agroforestry	3,136	0.033	0.031	0.036	0.592
		(0.179)	(0.174)	(0.186)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.29: Agricultural extension by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Received any extension messages	3,136	0.371	0.309	0.630	0.531	0.373	0.000
		(0.483)	(0.463)	(0.483)	(0.499)	(0.484)	
Received extension message(s) on:							
New seed varieties	3,136	0.064	0.085	0.124	0.082	0.061	0.099
		(0.245)	(0.280)	(0.330)	(0.274)	(0.240)	
Pest control	3,136	0.068	0.041	0.206	0.104	0.064	0.000
		(0.252)	(0.198)	(0.405)	(0.306)	(0.246)	
Fertilizer use	3,136	0.048	0.058	0.053	0.105	0.077	0.092
		(0.215)	(0.234)	(0.224)	(0.306)	(0.267)	
Pit planting	3,136	0.045	0.047	0.047	0.079	0.020	0.006
		(0.208)	(0.213)	(0.213)	(0.270)	(0.140)	
Irrigation	3,136	0.032	0.021	0.112	0.073	0.050	0.000
		(0.176)	(0.144)	(0.315)	(0.260)	(0.217)	
Composting	3,136	0.291	0.146	0.332	0.223	0.096	0.000
		(0.454)	(0.354)	(0.471)	(0.416)	(0.295)	
Marketing/crop sales	3,136	0.008	0.018	0.000	0.013	0.007	0.010
		(0.091)	(0.131)	(0.022)	(0.114)	(0.083)	
Growing/selling tobacco	2,985	0.001	0.000	0.091	0.028	0.012	
		(0.025)	(0.000)	(0.287)	(0.165)	(0.110)	
Access to credit	3,136	0.029	0.007	0.003	0.001	0.000	
		(0.169)	(0.081)	(0.053)	(0.025)	(0.000)	
Forestry	3,136	0.012	0.038	0.075	0.016	0.023	0.000
		(0.109)	(0.191)	(0.264)	(0.127)	(0.151)	
General animal care	3,136	0.016	0.023	0.015	0.036	0.011	0.336
		(0.127)	(0.150)	(0.123)	(0.187)	(0.106)	
Animal diseases/vaccination	3,136	0.019	0.059	0.019	0.015	0.004	0.000
		(0.136)	(0.236)	(0.137)	(0.121)	(0.064)	
Fishery production	3,136	0.002	0.000	0.000	0.000	0.002	
		(0.048)	(0.000)	(0.000)	(0.000)	(0.045)	
Contract farming	3,136	0.004	0.005	0.000	0.001	0.001	
		(0.066)	(0.071)	(0.000)	(0.035)	(0.035)	
Agroforestry	3,136	0.006	0.003	0.096	0.013	0.005	0.000
		(0.079)	(0.057)	(0.294)	(0.113)	(0.071)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.30: Agricultural yield by gender of household head

	N	Full sample	Male	Female	P-value
Maize yield (kg/hectare)	2,601	1,187	1,311	1,110	0.000
		(2,016)	(2,440)	(1,693)	
Pigeon pea yield (kg/hectare)	1,444	204	229	19	0.065
		(448)	(531)	(392)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.31: Agricultural yield by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Maize yield (kg/hectare)	2,601	1,187	827	1,255	1,203	0.000
		(2,016)	(1,171)	(2,000)	(2,635)	
Pigeon pea yield (kg/hectare)	1,444	204	195	206	208	0.971
		(448)	(500)	(445)	(417)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.32: Agricultural yield by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Maize yield (kg/hectare)	2,601	1,187	994	1,389	1,485	0.000
		(2,016)	(1,607)	(2,517)	(2,210)	
Pigeon pea yield (kg/hectare)	1,444	204	159	265	231	0.011
		(448)	(368)	(572)	(416)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.33: Agricultural yield by disability status

	N	Full sample	Without disability	With disability	P-value
Maize yield (kg/hectare)	2,601	1,187	1,177	1,201	0.825
		(2,016)	(1,938)	(2,121)	
Pigeon pea yield (kg/hectare)	1,444	204	223	177	0.017
		(448)	(516)	(323)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.34: Agricultural yield by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Maize yield (kg/hectare)	2,601	827	1,033	1,027	1,500	1,631	0.001
		(1,229)	(1,216)	(1,749)	(2,678)	(2,334)	
Pigeon pea yield (kg/hectare)	1,444	77	45	207	209	333	0.000
		(171)	(94)	(342)	(492)	(639)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.35: Household shock exposure by gender of household head

	N	Full sample	Male	Female	P-value
Severity-adjusted number of shocks experienced in the past 5 years					
Drought	3,136	2.778	2.681	2.839	0.483
		(2.036)	(2.038)	(2.032)	
Floods	3,136	1.592	1.540	1.624	0.089
		(1.370)	(1.323)	(1.398)	
Other covariate (community-level) shocks	3,136	1.721	1.603	1.795	0.204
		(1.181)	(1.169)	(1.182)	
Other idiosyncratic (household-level) shocks	3,136	0.874	0.863	0.881	0.003
		(1.731)	(1.644)	(1.783)	
Experienced a shock in the past 30 days	3,136	0.154	0.162	0.149	0.166
		(0.361)	(0.369)	(0.356)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.36: Household shock exposure by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Severity-adjusted number of shocks experienced in the past 5 years						
Drought	3,136	2.778	2.273	2.881	2.833	0.000
		(2.036)	(2.092)	(2.015)	(1.997)	
Floods	3,136	1.592	1.430	1.588	1.786	0.007
		(1.370)	(1.413)	(1.351)	(1.398)	
Other covariate (community-level) shocks	3,136	1.721	1.590	1.738	1.787	0.222
		(1.181)	(1.256)	(1.159)	(1.203)	
Other idiosyncratic (household-level) shocks	3,136	0.874	0.651	0.943	0.759	0.054
		(1.731)	(1.332)	(1.866)	(1.313)	
Experienced a shock in the past 30 days	3,136	0.154	0.177	0.151	0.143	0.419
		(0.361)	(0.382)	(0.358)	(0.351)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.37: Household shock exposure by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Severity-adjusted number of shocks experienced in the past 5 years						
Drought	3,136	2.778	2.871	2.811	2.438	0.009
		(2.036)	(2.090)	(1.992)	(1.890)	
Floods	3,136	1.592	1.700	1.518	1.361	0.000
		(1.370)	(1.380)	(1.344)	(1.345)	
Other covariate (community-level) shocks	3,136	1.721	1.683	1.819	1.696	0.045
		(1.181)	(1.179)	(1.174)	(1.189)	
Other idiosyncratic (household-level) shocks	3,136	0.874	0.844	0.878	0.962	0.680
		(1.731)	(1.666)	(1.621)	(2.060)	
Experienced a shock in the past 30 days	3,136	0.154	0.166	0.146	0.129	0.179
		(0.361)	(0.372)	(0.353)	(0.335)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.38: Household shock exposure by disability status

	N	Full sample	With disability	Without disability	P-value
Severity-adjusted number of shocks experienced in the past 5 years					
Drought	3,136	2.778	2.452	3.224	0.000
		(2.036)	(1.995)	(2.007)	
Floods	3,136	1.592	1.565	1.629	0.257
		(1.370)	(1.364)	(1.379)	
Other covariate (community-level) shocks	3,136	1.721	1.564	1.936	0.000
		(1.181)	(1.144)	(1.197)	
Other idiosyncratic (household-level) shocks	3,136	0.874	0.688	1.127	0.000
		(1.731)	(1.550)	(1.922)	
Experienced a shock in the past 30 days	3,136	0.154	0.168	0.134	0.075
		(0.361)	(0.374)	(0.341)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.39: Household shock exposure by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Severity-adjusted number of shocks experienced in the past 5 years							
Drought	3,136	2.598	1.820	3.370	2.754	2.331	0.000
		(1.971)	(1.777)	(2.065)	(1.929)	(2.037)	
Floods	3,136	1.399	0.571	1.443	1.948	2.043	0.000
		(1.145)	(1.039)	(1.407)	(1.281)	(1.589)	
Other covariate (community-level) shocks	3,136	1.521	1.400	1.975	1.692	1.761	0.000
		(1.282)	(1.106)	(1.052)	(1.131)	(1.217)	
Other idiosyncratic (household-level) shocks	3,136	0.990	0.896	0.988	0.627	0.800	0.015
		(1.965)	(1.849)	(1.763)	(1.352)	(1.630)	
Experienced a shock in the past 30 days	3,136	0.122	0.170	0.246	0.061	0.170	0.000
		(0.327)	(0.377)	(0.431)	(0.240)	(0.376)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.40: Safety net and humanitarian assistance program participation by gender of household head

	N	Full sample	Male	Female	P-value
Benefited from any social safety net	3,136	0.539	0.516	0.553	0.005
		(0.499)	(0.500)	(0.497)	
Received direct food transfer	3,136	0.162	0.154	0.167	0.045
		(0.369)	(0.361)	(0.373)	
Received direct cash transfer	3,136	0.069	0.050	0.080	0.000
		(0.253)	(0.219)	(0.272)	
Participated in a public works program	3,136	0.168	0.137	0.187	0.164
		(0.374)	(0.344)	(0.390)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.41: Safety net and humanitarian assistance program participation by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Benefited from any social safety net	3,136	0.539	0.344	0.569	0.610	0.000
		(0.499)	(0.476)	(0.495)	(0.488)	
Received direct food transfer	3,136	0.162	0.104	0.161	0.239	0.000
		(0.369)	(0.306)	(0.367)	(0.427)	
Received direct cash transfer	3,136	0.069	0.033	0.064	0.136	0.000
		(0.253)	(0.180)	(0.245)	(0.343)	
Participated in a public works program	3,136	0.168	0.126	0.182	0.140	0.017
		(0.374)	(0.332)	(0.386)	(0.347)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.42: Safety net and humanitarian assistance program participation by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Benefited from any social safety net	3,136	0.539	0.547	0.559	0.480	0.192
		(0.499)	(0.498)	(0.497)	(0.500)	
Received direct food transfer	3,136	0.162	0.158	0.181	0.145	0.301
		(0.369)	(0.365)	(0.385)	(0.353)	
Received direct cash transfer	3,136	0.069	0.070	0.072	0.060	0.635
		(0.253)	(0.255)	(0.259)	(0.237)	
Participated in a public works program	3,136	0.168	0.161	0.193	0.152	0.173
		(0.374)	(0.368)	(0.395)	(0.360)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.43: Safety net and humanitarian assistance program participation by disability status

	N	Full sample	Without disability	With disability	P-value
Benefited from any social safety net	3,136	0.539	0.508	0.581	0.000
		(0.499)	(0.500)	(0.494)	
Received direct food transfer	3,136	0.162	0.137	0.197	0.000
		(0.369)	(0.344)	(0.398)	
Received direct cash transfer	3,136	0.069	0.059	0.082	0.042
		(0.253)	(0.236)	(0.275)	
Participated in a public works program	3,136	0.168	0.167	0.170	0.827
		(0.374)	(0.373)	(0.376)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.44: Safety net and humanitarian assistance program participation by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Benefited from any social safety net	3,136	0.377	0.464	0.663	0.659	0.444	0.000
		(0.485)	(0.500)	(0.473)	(0.474)	(0.497)	
Received direct food transfer	3,136	0.169	0.209	0.211	0.081	0.161	0.000
		(0.375)	(0.407)	(0.408)	(0.274)	(0.368)	
Received direct cash transfer	3,136	0.072	0.045	0.075	0.069	0.059	0.571
		(0.258)	(0.208)	(0.264)	(0.254)	(0.235)	
Participated in a public works program	3,136	0.168	0.241	0.271	0.111	0.030	0.000
		(0.374)	(0.429)	(0.445)	(0.314)	(0.170)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.45: Economic wellbeing by gender of household head

	N	Full sample	Male	Female	P-value
Total nominal annual consumption per capita ('000 MWK)	3,136	136.679	137.421	136.217	0.113
		(97.977)	(95.278)	(99.642)	
Poor household	3,136	0.287	0.302	0.277	0.213
		(0.452)	(0.459)	(0.448)	
Ultra-poor household	3,136	0.502	0.484	0.513	0.025
		(0.500)	(0.500)	(0.500)	
Adequate food consumption over the past month	3,136	0.232	0.250	0.220	0.003
		(0.422)	(0.433)	(0.414)	
Adequate housing	3,136	0.402	0.418	0.392	0.102
		(0.490)	(0.494)	(0.488)	
Adequate clothing	3,136	0.239	0.267	0.222	0.021
		(0.427)	(0.443)	(0.416)	
Adequate health care	3,136	0.508	0.511	0.506	0.677
		(0.500)	(0.500)	(0.500)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses. Poor households have total per capita consumption below the national poverty line of MWK179,377 but above the national food poverty line of MWK111,398. Ultra-poor households have total per capita consumption below the national food poverty line.

Table A.46: Economic wellbeing by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Total nominal annual consumption per capita ('000 MWK)	3,136	136.679	152.790	132.059	141.369	0.011
		(97.977)	(97.991)	(96.296)	(104.673)	
Poor household	3,136	0.287	0.294	0.286	0.279	0.922
		(0.452)	(0.456)	(0.452)	(0.449)	
Ultra-poor household	3,136	0.502	0.436	0.522	0.483	0.007
		(0.500)	(0.496)	(0.500)	(0.500)	
Adequate food consumption over the past month	3,136	0.232	0.240	0.247	0.131	0.000
		(0.422)	(0.428)	(0.431)	(0.338)	
Adequate housing	3,136	0.402	0.389	0.409	0.382	0.666
		(0.490)	(0.488)	(0.492)	(0.486)	
Adequate clothing	3,136	0.239	0.234	0.250	0.193	0.077
		(0.427)	(0.424)	(0.433)	(0.395)	
Adequate health care	3,136	0.508	0.580	0.514	0.391	0.000
		(0.500)	(0.494)	(0.500)	(0.489)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses. Poor households have total per capita consumption below the national poverty line of MWK179,377 but above the national food poverty line of MWK111,398. Ultra-poor households have total per capita consumption below the national food poverty line.

Table A.47: Economic wellbeing by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Total nominal annual consumption per capita ('000 MWK)	3,136	136.679	76.685	139.869	274.685	0.000
		(97.977)	(20.082)	(19.568)	(127.749)	
Adequate food consumption over the past month	3,136	0.232	0.135	0.244	0.443	0.000
		(0.422)	(0.342)	(0.430)	(0.497)	
Adequate housing	3,136	0.402	0.319	0.422	0.572	0.000
		(0.490)	(0.466)	(0.494)	(0.495)	
Adequate clothing	3,136	0.239	0.141	0.260	0.444	0.000
		(0.427)	(0.348)	(0.439)	(0.497)	
Adequate health care	3,136	0.508	0.455	0.517	0.620	0.000
		(0.500)	(0.498)	(0.500)	(0.486)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses. Poor households have total per capita consumption below the national poverty line of MWK179,377 but above the national food poverty line of MWK111,398. Ultra-poor households have total per capita consumption below the national food poverty line.

Table A.48: Economic wellbeing by disability status

	N	Full sample	Without disability	With disability	P-value
Total nominal annual consumption per capita ('000 MWK)	3,136	136.679	140.348	131.675	0.124
		(97.977)	(110.456)	(77.561)	
Poor household	3,136	0.287	0.277	0.300	0.264
		(0.452)	(0.448)	(0.458)	
Ultra-poor household	3,136	0.502	0.506	0.496	0.649
		(0.500)	(0.500)	(0.500)	
Adequate food consumption over the past month	3,136	0.232	0.271	0.178	0.000
		(0.422)	(0.445)	(0.382)	
Adequate housing	3,136	0.402	0.427	0.369	0.041
		(0.490)	(0.495)	(0.483)	
Adequate clothing	3,136	0.239	0.272	0.195	0.000
		(0.427)	(0.445)	(0.397)	
Adequate health care	3,136	0.508	0.542	0.461	0.002
		(0.500)	(0.498)	(0.499)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses. Poor households have total per capita consumption below the national poverty line of MWK179,377 but above the national food poverty line of MWK111,398. Ultra-poor households have total per capita consumption below the national food poverty line.

Table A.49: Economic wellbeing by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Total nominal annual consumption per capita ('000 MWK)	3,136	123.173	148.651	146.250	150.003	119.506	0.001
		(89.493)	(119.700)	(97.210)	(109.539)	(81.477)	
Poor household	3,136	0.238	0.255	0.324	0.337	0.239	0.000
		(0.426)	(0.437)	(0.468)	(0.473)	(0.427)	
Ultra-poor household	3,136	0.590	0.486	0.440	0.413	0.596	0.000
		(0.492)	(0.501)	(0.497)	(0.493)	(0.491)	
Adequate food consumption over the past month	3,136	0.218	0.337	0.236	0.243	0.198	0.007
		(0.413)	(0.474)	(0.425)	(0.429)	(0.399)	
Adequate housing	3,136	0.375	0.474	0.408	0.412	0.404	0.540
		(0.484)	(0.500)	(0.492)	(0.493)	(0.491)	
Adequate clothing	3,136	0.233	0.337	0.203	0.275	0.233	0.029
		(0.423)	(0.474)	(0.403)	(0.447)	(0.423)	
Adequate health care	3,136	0.423	0.341	0.493	0.657	0.527	0.000
		(0.494)	(0.475)	(0.500)	(0.475)	(0.500)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses. Poor households have total per capita consumption below the national poverty line of MWK179,377 but above the national food poverty line of MWK111,398. Ultra-poor households have total per capita consumption below the national food poverty line.

Table A.50: Sources of income by gender of household head

	N	Full sample	Male	Female	P-value
Household has a non-farm source of income	3,136	0.280	0.265	0.290	0.000
		(0.449)	(0.441)	(0.454)	
Number of non-agricultural enterprises	3,136	0.315	0.301	0.323	0.000
		(0.540)	(0.538)	(0.542)	
Annual per capita non-farm income ('000 MWK)	3,136	4.130	4.014	4.201	0.252
		(25.377)	(12.875)	(30.686)	
Annual per capita farm income ('000 MWK)	3,136	4.976	6.120	4.265	0.480
		(38.851)	(57.167)	(20.387)	

Note: Estimates from the BRACC Baseline Survey sample.

Table A.51: Sources of income by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Household has a non-farm source of income	3,136	0.343	0.351	0.368	0.208	0.000
		(0.475)	(0.478)	(0.482)	(0.407)	
Number of non-agricultural enterprises	3,136	0.315	0.309	0.340	0.187	0.001
		(0.540)	(0.512)	(0.556)	(0.468)	
Annual per capita non-farm income ('000 MWK)	3,136	4.130	3.246	4.524	3.018	0.212
		(25.377)	(10.378)	(29.532)	(8.542)	
Annual per capita farm income ('000 MWK)	3,136	4.976	2.916	5.184	6.296	0.001
		(38.851)	(8.429)	(45.440)	(16.808)	

Note: Estimates from the BRACC Baseline Survey sample.

Table A.52: Sources of income by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Household has a non-farm source of income	3,136	0.343	0.281	0.390	0.427	0.000
		(0.475)	(0.450)	(0.488)	(0.495)	
Number of non-agricultural enterprises	3,136	0.315	0.251	0.352	0.416	0.000
		(0.540)	(0.477)	(0.571)	(0.615)	
Annual per capita non-farm income ('000 MWK)	3,136	4.130	1.682	4.015	10.092	0.000
		(25.377)	(5.351)	(9.705)	(52.942)	
Annual per capita farm income ('000 MWK)	3,136	4.976	1.774	4.930	12.636	0.000
		(38.851)	(6.165)	(19.931)	(80.206)	

Note: Estimates from the BRACC Baseline Survey sample.

Table A.53: Sources of income by disability status

	N	Full sample	Without disability	With disability	P-value
Household has a non-farm source of income	3,136	0.343	0.367	0.312	0.028
		(0.475)	(0.482)	(0.463)	
Number of non-agricultural enterprises	3,136	0.315	0.323	0.303	0.419
		(0.540)	(0.537)	(0.545)	
Annual per capita non-farm income ('000 MWK)	3,136	4.130	4.873	3.116	0.071
		(25.377)	(32.321)	(9.807)	
Annual per capita farm income ('000 MWK)	3,136	4.976	4.281	5.925	0.333
		(38.851)	(30.451)	(47.989)	

Note: Estimates from the BRACC Baseline Survey sample.

Table A.54: Sources of income by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Household has a non-farm source of income	3,136	0.302	0.273	0.368	0.412	0.293	0.010
		(0.459)	(0.447)	(0.483)	(0.493)	(0.456)	
Number of non-agricultural enterprises	3,136	0.204	0.304	0.344	0.416	0.318	0.000
		(0.427)	(0.522)	(0.538)	(0.642)	(0.539)	
Annual per capita non-farm income ('000 MWK)	3,136	0.520	2.328	7.765	4.941	3.265	0.000
		(3.125)	(8.645)	(44.757)	(12.754)	(8.880)	
Annual per capita farm income ('000 MWK)	3,136	3.925	5.267	5.063	5.678	5.627	0.862
		(18.560)	(15.907)	(27.012)	(37.842)	(75.751)	

Note: Estimates from the BRACC Baseline Survey sample.

Table A.55: Coping strategies by gender of household head

	N	Full sample	Male	Female	P-value
Coping Strategies Index (0-70)	3,136	13.114	12.260	14.578	0.000
		(10.185)	(9.788)	(10.678)	
Number of days in the past week household had to					
rely on less preferred or less expensive food	3,136	2.427	2.235	2.755	0.000
		(2.318)	(2.229)	(2.428)	
borrow food or rely on help from a friend or relative	3,136	1.121	0.995	1.336	0.000
		(1.681)	(1.567)	(1.840)	
rely on piece work	3,136	3.139	3.154	3.113	0.777
		(2.978)	(2.983)	(2.970)	
send children out to beg	2,802	0.257	0.216	0.326	0.038
		(0.909)	(0.837)	(1.019)	
reduce number of meals eaten in a day	3,136	2.263	2.097	2.548	0.000
		(2.350)	(2.282)	(2.437)	
reduce size of meals eaten in a day	3,136	2.279	2.179	2.450	0.025
		(2.424)	(2.410)	(2.439)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.56: Coping strategies by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Coping Strategies Index (0-70)	3,136	13.114	13.346	13.014	13.427	0.739
		(10.185)	(9.836)	(10.282)	(10.173)	
Number of days in the past week household had to						
rely on less preferred or less expensive food	3,136	2.427	2.408	2.393	2.634	0.410
		(2.318)	(2.241)	(2.298)	(2.516)	
borrow food or rely on help from a friend or relative	3,136	1.121	1.412	1.012	1.363	0.000
		(1.681)	(1.778)	(1.559)	(2.088)	
rely on piece work	3,136	3.139	3.721	3.188	2.185	0.000
		(2.978)	(2.991)	(2.975)	(2.759)	
send children out to beg	2,802	0.257	0.198	0.271	0.242	0.391
		(0.909)	(0.925)	(0.905)	(0.921)	
reduce number of meals eaten in a day	3,136	2.263	2.086	2.242	2.595	0.123
		(2.350)	(2.301)	(2.331)	(2.494)	
reduce size of meals eaten in a day	3,136	2.279	2.013	2.278	2.613	0.054
		(2.424)	(2.271)	(2.429)	(2.550)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.57: Coping strategies by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Coping Strategies Index (0-70)	3,136	13.114	15.272	11.544	8.684	0.000
		(10.185)	(10.462)	(9.427)	(8.385)	
Number of days in the past week household had to						
rely on less preferred or less expensive food	3,136	2.427	2.785	2.127	1.750	0.000
		(2.318)	(2.359)	(2.202)	(2.135)	
borrow food or rely on help from a friend or relative	3,136	1.121	1.190	1.058	0.996	0.123
		(1.681)	(1.679)	(1.702)	(1.645)	
rely on piece work	3,136	3.139	3.816	2.602	1.817	0.000
		(2.978)	(2.952)	(2.793)	(2.711)	
send children out to beg	2,802	0.257	0.323	0.194	0.069	0.000
		(0.909)	(1.032)	(0.748)	(0.415)	
reduce number of meals eaten in a day	3,136	2.263	2.606	2.104	1.426	0.000
		(2.350)	(2.435)	(2.228)	(2.000)	
reduce size of meals eaten in a day	3,136	2.279	2.601	2.083	1.561	0.000
		(2.424)	(2.513)	(2.322)	(2.082)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.58: Coping strategies by disability status

	N	Full sample	Without disability	With disability	P-value
Coping Strategies Index (0-70)	3,136	13.114	12.631	13.774	0.020
		(10.185)	(10.486)	(9.725)	
Number of days in the past week household had to					
rely on less preferred or less expensive food	3,136	2.427	2.283	2.622	0.001
		(2.318)	(2.325)	(2.294)	
borrow food or rely on help from a friend or relative	3,136	1.121	1.028	1.247	0.013
		(1.681)	(1.665)	(1.694)	
rely on piece work	3,136	3.139	3.334	2.873	0.002
		(2.978)	(2.988)	(2.946)	
send children out to beg	2,802	0.257	0.242	0.276	0.508
		(0.909)	(0.940)	(0.866)	
reduce number of meals eaten in a day	3,136	2.263	2.161	2.403	0.012
		(2.350)	(2.408)	(2.262)	
reduce size of meals eaten in a day	3,136	2.279	2.145	2.461	0.002
		(2.424)	(2.468)	(2.350)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.59: Coping strategies by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Coping Strategies Index (0-70)	3,136	13.738	11.422	12.977	12.332	13.950	0.037
		(10.580)	(9.890)	(10.948)	(9.225)	(9.209)	
Number of days in the past week household had to							
rely on less preferred or less expensive food	3,136	2.740	2.697	2.369	2.110	2.339	0.001
		(2.367)	(2.620)	(2.314)	(2.220)	(2.194)	
borrow food or rely on help from a friend or relative	3,136	1.109	0.920	1.169	1.025	1.259	0.013
		(1.663)	(1.576)	(1.834)	(1.550)	(1.618)	
rely on piece work	3,136	3.098	2.635	3.029	3.150	3.580	0.115
		(3.034)	(2.987)	(2.918)	(2.991)	(2.926)	
send children out to beg	2,802	0.386	0.094	0.194	0.240	0.209	0.000
		(1.155)	(0.500)	(0.832)	(0.786)	(0.761)	
reduce number of meals eaten in a day	3,136	2.403	1.965	2.332	1.999	2.366	0.017
		(2.504)	(2.390)	(2.470)	(1.959)	(2.312)	
reduce size of meals eaten in a day	3,136	2.284	1.979	2.252	2.235	2.486	0.375
		(2.537)	(2.438)	(2.513)	(2.205)	(2.332)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.60: Food security by gender of household head

	N	Full sample	Male	Female	P-value
Because of lack of money or other resources during the past 12 months, somebody in the household:					
was worried about not having enough food to eat	3,135	0.884	0.871	0.906	0.089
		(0.329)	(0.348)	(0.292)	
was unable to eat healthy and nutritious food	3,135	0.875	0.860	0.900	0.020
		(0.340)	(0.361)	(0.300)	
ate only few kinds of food	3,135	0.887	0.869	0.920	0.005
		(0.333)	(0.356)	(0.287)	
skipped a meal	3,134	0.812	0.794	0.842	0.048
		(0.399)	(0.413)	(0.372)	
ate less than what they thought they should	3,134	0.845	0.824	0.879	0.009
		(0.368)	(0.390)	(0.326)	
ran out of food	3,135	0.825	0.809	0.853	0.034
		(0.387)	(0.402)	(0.359)	
was hungry but did not eat	3,133	0.806	0.786	0.839	0.024
		(0.413)	(0.436)	(0.368)	
went without eating for a day because	3,135	0.660	0.632	0.707	0.001
		(0.488)	(0.505)	(0.455)	
Number of days in the past month a household member:					
did not have enough food or money to buy food	3,136	7.124	6.605	8.013	0.000
		(7.347)	(7.123)	(7.638)	
went to sleep at night hungry because there was not enough food	3,136	2.998	2.748	3.426	0.000
		(3.848)	(3.718)	(4.028)	
went a whole day and night without eating anything because there was not enough food	3,136	1.769	1.579	2.095	0.000
		(3.001)	(2.861)	(3.201)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.61: Food security by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Because of lack of money or other resources during the past 12 months, somebody in the household:						
was worried about not having enough food to eat	3,135	0.884	0.876	0.879	0.920	0.093
		(0.329)	(0.369)	(0.329)	(0.271)	
was unable to eat healthy and nutritious food	3,135	0.875	0.866	0.868	0.919	0.034
		(0.340)	(0.379)	(0.338)	(0.298)	
ate only few kinds of food	3,135	0.887	0.879	0.882	0.926	0.127
		(0.333)	(0.366)	(0.330)	(0.308)	
skipped a meal	3,134	0.812	0.792	0.806	0.862	0.075
		(0.399)	(0.453)	(0.395)	(0.346)	
ate less than what they thought they should	3,134	0.845	0.840	0.839	0.876	0.300
		(0.368)	(0.403)	(0.367)	(0.330)	
ran out of food	3,135	0.825	0.788	0.823	0.881	0.016
		(0.387)	(0.442)	(0.384)	(0.324)	
was hungry but did not eat	3,133	0.806	0.774	0.805	0.842	0.223
		(0.413)	(0.450)	(0.413)	(0.365)	
went without eating for a day because	3,135	0.660	0.600	0.658	0.734	0.007
		(0.488)	(0.517)	(0.489)	(0.442)	
Number of days in the past month a household member:						
did not have enough food or money to buy food	3,136	7.124	6.980	6.820	9.008	0.000
		(7.347)	(7.064)	(7.112)	(8.585)	
went to sleep at night hungry because there was not enough food	3,136	2.998	3.014	2.958	3.243	0.457
		(3.848)	(3.898)	(3.803)	(4.051)	
went a whole day and night without eating anything because there was not enough food	3,136	1.769	1.501	1.753	2.181	0.029
		(3.001)	(2.466)	(2.972)	(3.649)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.62: Food security by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Because of lack of money or other resources during the past 12 months, somebody in the household:						
was worried about not having enough food to eat	3,135	0.884	0.943	0.861	0.733	0.000
		(0.329)	(0.249)	(0.351)	(0.443)	
was unable to eat healthy and nutritious food	3,135	0.875	0.936	0.847	0.725	0.000
		(0.340)	(0.263)	(0.365)	(0.447)	
ate only few kinds of food	3,135	0.887	0.936	0.881	0.744	0.000
		(0.333)	(0.267)	(0.349)	(0.437)	
skipped a meal	3,134	0.812	0.877	0.773	0.665	0.000
		(0.399)	(0.337)	(0.424)	(0.484)	
ate less than what they thought they should	3,134	0.845	0.907	0.810	0.700	0.000
		(0.368)	(0.300)	(0.398)	(0.459)	
ran out of food	3,135	0.825	0.887	0.787	0.687	0.000
		(0.387)	(0.328)	(0.414)	(0.464)	
was hungry but did not eat	3,133	0.806	0.871	0.761	0.666	0.000
		(0.413)	(0.368)	(0.432)	(0.472)	
went without eating for a day because	3,135	0.660	0.764	0.590	0.435	0.000
		(0.488)	(0.451)	(0.496)	(0.496)	
Number of days in the past month a household member:						
did not have enough food or money to buy food	3,136	7.124	8.433	6.093	4.555	0.000
		(7.347)	(7.484)	(6.863)	(6.672)	
went to sleep at night hungry because there was not enough food	3,136	2.998	3.650	2.585	1.566	0.000
		(3.848)	(4.048)	(3.782)	(2.648)	
went a whole day and night without eating anything because there was not enough food	3,136	1.769	2.215	1.365	0.972	0.000
		(3.001)	(3.253)	(2.697)	(2.273)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.63: Food security by disability status

	N	Full sample	Without disability	With disability	P-value
Because of lack of money or other resources during the past 12 months, somebody in the household:					
was worried about not having enough food to eat	3,135	0.884	0.851	0.929	0.000
		(0.329)	(0.367)	(0.262)	
was unable to eat healthy and nutritious food	3,135	0.875	0.838	0.925	0.000
		(0.340)	(0.376)	(0.276)	
ate only few kinds of food	3,135	0.887	0.856	0.931	0.000
		(0.333)	(0.367)	(0.273)	
skipped a meal	3,134	0.812	0.782	0.852	0.002
		(0.399)	(0.424)	(0.359)	
ate less than what they thought they should	3,134	0.845	0.811	0.891	0.001
		(0.368)	(0.399)	(0.316)	
ran out of food	3,135	0.825	0.787	0.878	0.000
		(0.387)	(0.417)	(0.336)	
was hungry but did not eat	3,133	0.806	0.776	0.845	0.001
		(0.413)	(0.443)	(0.365)	
went without eating for a day because	3,135	0.660	0.620	0.714	0.000
		(0.488)	(0.508)	(0.455)	
Number of days in the past month a household member:					
did not have enough food or money to buy food	3,136	7.124	6.460	8.030	0.000
		(7.347)	(6.863)	(7.874)	
went to sleep at night hungry because there was not enough food	3,136	2.998	2.711	3.389	0.001
		(3.848)	(3.768)	(3.924)	
went a whole day and night without eating anything because there was not enough food	3,136	1.769	1.547	2.072	0.000
		(3.001)	(2.793)	(3.240)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.64: Food security by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Because of lack of money or other resources during the past 12 months, somebody in the household:							
was worried about not having enough food to eat	3,135	0.897	0.756	0.904	0.864	0.895	0.004
		(0.323)	(0.430)	(0.294)	(0.343)	(0.332)	
was unable to eat healthy and nutritious food	3,135	0.900	0.778	0.884	0.848	0.882	0.017
		(0.318)	(0.416)	(0.330)	(0.359)	(0.334)	
ate only few kinds of food	3,135	0.894	0.777	0.897	0.872	0.919	0.022
		(0.326)	(0.417)	(0.305)	(0.354)	(0.324)	
skipped a meal	3,134	0.848	0.727	0.804	0.806	0.796	0.316
		(0.384)	(0.447)	(0.397)	(0.396)	(0.412)	
ate less than what they thought they should	3,134	0.869	0.763	0.841	0.835	0.847	0.325
		(0.354)	(0.426)	(0.366)	(0.371)	(0.369)	
ran out of food	3,135	0.871	0.743	0.825	0.797	0.810	0.086
		(0.352)	(0.438)	(0.380)	(0.409)	(0.402)	
was hungry but did not eat	3,133	0.847	0.710	0.782	0.837	0.758	0.013
		(0.376)	(0.454)	(0.413)	(0.423)	(0.437)	
went without eating for a day because	3,135	0.736	0.550	0.657	0.621	0.617	0.009
		(0.454)	(0.498)	(0.475)	(0.527)	(0.494)	
Number of days in the past month a household member:							
did not have enough food or money to buy food	3,136	7.742	5.569	6.858	6.032	8.642	0.000
		(8.085)	(7.702)	(7.137)	(5.996)	(7.655)	
went to sleep at night hungry because there was not enough food	3,136	3.208	1.780	3.104	2.594	3.413	0.000
		(3.808)	(3.034)	(3.889)	(3.497)	(4.430)	
went a whole day and night without eating anything because there was not enough food	3,136	1.702	0.695	1.667	1.981	2.127	0.000
		(2.400)	(1.518)	(3.210)	(3.381)	(3.259)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.65: Nutritional outcomes by gender of household head

	N	Full sample	Male	Female	P-value
Calorie availability ('000 kcal per capita per day)	3,135	2.394	2.480	2.247	0.261
		(6.200)	(6.552)	(5.544)	
Protein availability (g per capita per day)	3,135	66.351	70.869	58.615	0.117
		(244.578)	(292.535)	(125.098)	
Calcium availability (g per capita per day)	3,135	215.553	224.842	199.645	0.413
		(874.049)	(1,037.887)	(477.092)	
Iron availability (mg per capita per day)	3,135	20.473	21.847	18.119	0.125
		(67.800)	(83.596)	(22.256)	
Zinc availability (mg per capita per day)	3,135	11.355	12.058	10.150	0.062
		(32.595)	(39.358)	(15.081)	
Vitamin A availability (RAE[42] mg per capita per day)	3,135	313.358	313.054	313.878	0.962
		(342.331)	(340.231)	(346.046)	
Folate availability (DFE[43] mg per capita per day)	3,135	272.262	301.998	221.343	0.157
		(1,556.869)	(1,944.576)	(310.350)	
Vitamin B12 availability (µg per capita per day)	3,135	0.618	0.637	0.587	0.645
		(2.492)	(1.966)	(3.199)	
Vitamin C availability (µg per capita per day)	3,135	46.797	48.693	43.551	0.037
		(55.235)	(56.760)	(52.386)	
Household dietary diversity score (0-12)	3,135	7.307	7.613	6.783	0.000
		(2.161)	(2.151)	(2.076)	
Food consumption score (0-168)	3,136	39.055	40.629	36.360	0.000
		(13.956)	(14.359)	(12.802)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

[42] Retinol Activity Equivalent (RAE) measures the amount of vitamin A that the body can actively absorb.

[43] Dietary Folate Equivalent (DFE) accounts for the differences in the absorption folate from different food sources.

Table A.66: Nutritional outcomes by age of household head

	N	Full sample	Youth (<25)	Prime age (25-64)	Elderly (>64)	P-value
Calorie availability ('000 kcal per capita per day)	3,135	2.394	2.791	2.360	2.110	0.208
		(6.200)	(8.953)	(6.014)	(1.417)	
Protein availability (g per capita per day)	3,135	66.351	74.868	65.774	59.555	0.544
		(244.578)	(263.181)	(261.878)	(59.128)	
Calcium availability (g per capita per day)	3,135	215.553	281.261	204.003	200.157	0.410
		(874.049)	(1,492.671)	(759.835)	(207.013)	
Iron availability (mg per capita per day)	3,135	20.473	22.066	20.336	19.364	0.739
		(67.800)	(69.638)	(73.464)	(12.582)	
Zinc availability (mg per capita per day)	3,135	11.355	12.874	11.148	10.678	0.655
		(32.595)	(43.182)	(32.835)	(7.484)	
Vitamin A availability (RAE[44] mg per capita per day)	3,135	313.358	355.421	306.063	302.377	0.141
		(342.331)	(356.473)	(350.808)	(271.311)	
Folate availability (DFE[45] mg per capita per day)	3,135	272.262	268.984	278.725	242.869	0.706
		(1,556.869)	(969.680)	(1,792.317)	(205.090)	
Vitamin B12 availability (µg per capita per day)	3,135	0.618	0.564	0.651	0.505	0.137
		(2.492)	(0.751)	(2.927)	(0.703)	
Vitamin C availability (µg per capita per day)	3,135	46.797	54.728	45.783	42.798	0.066
		(55.235)	(58.669)	(55.593)	(48.455)	
Household dietary diversity score (0-12)	3,135	7.307	7.368	7.432	6.543	0.000
		(2.161)	(2.123)	(2.149)	(2.120)	
Food consumption score (0-168)	3,136	39.055	38.454	39.826	35.529	0.000
		(13.956)	(13.714)	(14.082)	(13.004)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

[44] Retinol Activity Equivalent (RAE) measures the amount of vitamin A that the body can actively absorb.

[45] Dietary Folate Equivalent (DFE) accounts for the differences in the absorption folate from different food sources.

Table A.67: Nutritional outcomes by poverty status

	N	Full sample	Ultra-poor	Poor	Non-poor	P-value
Calorie availability ('000 kcal per capita per day)	3,135	2.394	1.515	2.669	4.745	0.000
		(6.200)	(2.476)	(5.276)	(12.159)	
Protein availability (g per capita per day)	3,135	66.351	38.092	67.372	153.502	0.000
		(244.578)	(63.723)	(98.724)	(547.599)	
Calcium availability (g per capita per day)	3,135	215.553	129.054	203.240	505.336	0.000
		(874.049)	(720.552)	(156.776)	(1,591.087)	
Iron availability (mg per capita per day)	3,135	20.473	14.324	21.490	38.247	0.000
		(67.800)	(24.372)	(41.001)	(145.284)	
Zinc availability (mg per capita per day)	3,135	11.355	7.691	11.909	22.024	0.000
		(32.595)	(14.174)	(21.235)	(67.302)	
Vitamin A availability (RAE[46] mg per capita per day)	3,135	313.358	209.893	353.965	577.467	0.000
		(342.331)	(193.821)	(325.170)	(528.137)	
Folate availability (DFE[47] mg per capita per day)	3,135	272.262	166.323	256.460	628.252	0.000
		(1,556.869)	(522.522)	(251.543)	(3,542.894)	
Vitamin B12 availability (µg per capita per day)	3,135	0.618	0.249	0.699	1.656	0.000
		(2.492)	(0.332)	(1.834)	(5.304)	
Vitamin C availability (µg per capita per day)	3,135	46.797	27.909	54.657	94.345	0.000
		(55.235)	(28.189)	(48.221)	(88.070)	
Household dietary diversity score (0-12)	3,135	7.307	6.319	8.278	8.956	0.000
		(2.161)	(1.773)	(1.842)	(2.047)	
Food consumption score (0-168)	3,136	39.055	33.429	43.936	49.436	0.000
		(13.956)	(10.692)	(13.545)	(14.903)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

[46] Retinol Activity Equivalent (RAE) measures the amount of vitamin A that the body can actively absorb.

[47] Dietary Folate Equivalent (DFE) accounts for the differences in the absorption folate from different food sources.

Table A.68: Nutritional outcomes by disability status

	N	Full sample	With disability	Without disability	P-value
Calorie availability ('000 kcal per capita per day)	3,135	2.394	2.450	2.318	0.578
		(6.200)	(6.567)	(5.661)	
Protein availability (g per capita per day)	3,135	66.351	68.416	63.534	0.597
		(244.578)	(284.658)	(175.806)	
Calcium availability (g per capita per day)	3,135	215.553	232.046	193.053	0.211
		(874.049)	(1,085.369)	(445.762)	
Iron availability (mg per capita per day)	3,135	20.473	21.201	19.478	0.543
		(67.800)	(80.460)	(45.140)	
Zinc availability (mg per capita per day)	3,135	11.355	11.460	11.211	0.848
		(32.595)	(35.326)	(28.461)	
Vitamin A availability (RAE[48] mg per capita per day)	3,135	313.358	310.788	316.864	0.747
		(342.331)	(343.826)	(340.379)	
Folate availability (DFE[49] mg per capita per day)	3,135	272.262	292.607	244.509	0.451
		(1,556.869)	(1,972.529)	(650.153)	
Vitamin B12 availability (µg per capita per day)	3,135	0.618	0.625	0.608	0.846
		(2.492)	(2.679)	(2.214)	
Vitamin C availability (µg per capita per day)	3,135	46.797	47.207	46.238	0.697
		(55.235)	(59.357)	(49.073)	
Household dietary diversity score (0-12)	3,135	7.307	7.211	7.438	0.029
		(2.161)	(2.167)	(2.146)	
Food consumption score (0-168)	3,136	39.055	39.545	38.387	0.079
		(13.956)	(13.908)	(13.998)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

[48] Retinol Activity Equivalent (RAE) measures the amount of vitamin A that the body can actively absorb.

[49] Dietary Folate Equivalent (DFE) accounts for the differences in the absorption folate from different food sources.

Table A.69: Nutritional outcomes by TA

	N	Kalembo	Mbera	Kaduya	Mkhumba	Nazombe	P-value
Calorie availability ('000 kcal per capita per day)	3,135	2.136	2.023	3.083	2.306	1.807	0.039
		(5.712)	(1.984)	(9.500)	(2.536)	(2.807)	
Protein availability (g per capita per day)	3,135	49.253	55.816	93.309	69.658	44.946	0.002
		(34.942)	(55.331)	(433.704)	(128.708)	(65.617)	
Calcium availability (g per capita per day)	3,135	149.453	159.200	315.084	220.394	158.957	0.001
		(903.623)	(162.235)	(1,321.425)	(278.530)	(153.929)	
Iron availability (mg per capita per day)	3,135	16.115	18.175	28.794	18.629	16.139	0.003
		(10.670)	(18.791)	(122.688)	(13.903)	(26.903)	
Zinc availability (mg per capita per day)	3,135	8.714	9.807	15.922	10.838	8.793	0.000
		(5.838)	(9.815)	(58.394)	(9.525)	(13.977)	
Vitamin A availability (RAE[50] mg per capita per day)	3,135	265.932	285.671	311.058	415.551	261.861	0.010
		(274.879)	(297.402)	(313.206)	(472.275)	(245.104)	
Folate availability (DFE[51] mg per capita per day)	3,135	176.622	204.939	438.569	242.988	197.372	0.000
		(134.830)	(169.722)	(2,868.340)	(248.556)	(190.669)	
Vitamin B12 availability (µg per capita per day)	3,135	0.564	0.618	0.702	0.767	0.334	0.000
		(0.685)	(1.109)	(2.758)	(4.070)	(0.503)	
Vitamin C availability (µg per capita per day)	3,135	34.034	45.409	52.251	59.509	41.514	0.000
		(37.215)	(57.761)	(62.448)	(64.360)	(46.786)	
Household dietary diversity score (0-12)	3,135	6.561	6.806	7.806	7.955	6.932	0.000
		(2.186)	(2.137)	(2.030)	(1.958)	(2.112)	
Food consumption score (0-168)	3,136	38.644	36.263	40.358	41.707	34.243	0.000
	3,135	(14.451)	(12.344)	(12.931)	(14.336)	(13.452)	

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

[50] Retinol Activity Equivalent (RAE) measures the amount of vitamin A that the body can actively absorb.

[51] Dietary Folate Equivalent (DFE) accounts for the differences in the absorption folate from different food sources.

Annex H. Balance tables

Table A.70: Demographics by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Household size	3,136	4.490	4.706	4.356	-0.081	0.003
		(1.942)	(2.017)	(1.882)		
Dependency ratio	2,996	1.173	1.180	1.168	-0.031	0.752
		(0.934)	(0.913)	(0.948)		
Female-headed household	3,136	0.369	0.352	0.379	0.038	0.325
		(0.483)	(0.478)	(0.485)		
Age of the household head	3,134	41.428	42.239	40.924	-0.071	0.131
		(17.359)	(17.240)	(17.418)		
Household head <25 years	3,127	0.157	0.139	0.169	0.084	0.102
		(0.364)	(0.346)	(0.375)		
Household head >64 years	3,127	0.133	0.131	0.135	-0.029	0.785
		(0.340)	(0.337)	(0.342)		
Household head has some education	3,136	0.831	0.855	0.816	-0.072	0.048
		(0.375)	(0.352)	(0.387)		
Highest level formal education in household (years)	3,136	7.832	8.260	7.566	-0.071	0.015
		(3.345)	(3.486)	(3.226)		
Household head never married	3,136	0.013	0.017	0.011	0.001	0.611
		(0.115)	(0.128)	(0.106)		
Household head in monogamous marriage	3,136	0.639	0.659	0.627	-0.046	0.222
		(0.480)	(0.474)	(0.484)		
Household head in polygamous marriage	3,136	0.055	0.061	0.051	-0.035	0.378
		(0.227)	(0.240)	(0.220)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.71: Disabilities by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Household has a member with						
difficulty seeing, even if wearing glasses	3,136	0.174	0.178	0.171	-0.014	0.687
		(0.379)	(0.383)	(0.377)		
difficulty hearing, even if using hearing aid	3,135	0.112	0.100	0.120	0.013	0.203
		(0.316)	(0.300)	(0.325)		
difficulty walking or climbing steps	3,136	0.181	0.198	0.170	-0.040	0.059
		(0.385)	(0.398)	(0.376)		
difficulty remembering or concentrating	3,136	0.163	0.154	0.168	0.058	0.521
		(0.369)	(0.361)	(0.374)		
difficulty with self-care e.g. washing or dressing	3,135	0.118	0.113	0.121	0.044	0.695
		(0.322)	(0.316)	(0.326)		
difficulty communicating	3,134	0.108	0.108	0.109	0.010	0.948
		(0.311)	(0.310)	(0.311)		
Albinism	3,135	0.023	0.021	0.024	0.018	0.662
		(0.150)	(0.144)	(0.154)		
any disability	3,136	0.423	0.412	0.430	0.019	0.484
		(0.494)	(0.492)	(0.495)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.72: Wealth by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Durable asset index scores	3,136	-0.000	0.074	-0.037	-0.089	0.054
		(1.231)	(1.343)	(1.169)		
Total value of all household durable assets ('000,000 MWK) – full sample	3,136	1.136	2.361	0.520	-0.042	0.359
		(36.585)	(61.991)	(8.827)		
Total value of all household durable assets ('000,000 MWK) – winsorised at 99%	3,136	0.051	0.057	0.048	-0.055	0.242
		(0.153)	(0.162)	(0.148)		
Agricultural asset index scores	3,136	0.000	0.083	-0.042	-0.091	0.049
		(1.368)	(1.386)	(1.357)		
Tropical Livestock Units	3,136	0.119	0.144	0.107	-0.083	0.065
		(0.419)	(0.554)	(0.329)		
At least one household member has a bank account	3,134	0.214	0.222	0.210	-0.029	0.512
		(0.410)	(0.416)	(0.408)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.73: Agricultural production by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Engaged in farming	3,136	0.952	0.948	0.954	0.029	0.452
		(0.214)	(0.223)	(0.210)		
Number of plots owned or managed	3,048	1.572	1.627	1.545	-0.096	0.118
		(0.844)	(0.902)	(0.812)		
Plot area (acres)	2,985	1.370	2.040	1.035	-0.045	0.312
		(18.313)	(31.691)	(0.938)		
Number of crops grown	2,985	1.604	1.663	1.575	-0.106	0.084
		(0.822)	(0.878)	(0.791)		
Crop diversity (Simpson's Index)	2,945	0.553	0.522	0.569	0.096	0.094
		(0.497)	(0.500)	(0.495)		
Food crops grown						
Maize	2,985	0.986	0.988	0.985	-0.026	0.583
		(0.118)	(0.109)	(0.122)		
Pumpkin leaves	2,985	0.102	0.101	0.103	0.008	0.896
		(0.303)	(0.301)	(0.304)		
Sorghum	2,985	0.086	0.066	0.095	0.107	0.076
		(0.280)	(0.249)	(0.294)		
Groundnuts	2,985	0.122	0.124	0.122	-0.006	0.915
		(0.328)	(0.329)	(0.327)		
Pearl millet	2,985	0.022	0.031	0.018	-0.088	0.110
		(0.147)	(0.174)	(0.131)		
Rice	2,985	0.014	0.010	0.017	0.057	0.201
		(0.119)	(0.100)	(0.128)		
Cassava	2,985	0.060	0.061	0.059	-0.008	0.899
		(0.237)	(0.240)	(0.236)		
Cash crops grown						
Pigeon pea	2,985	0.566	0.559	0.570	0.022	0.772
		(0.496)	(0.497)	(0.495)		
Sunflower	2,985	0.043	0.049	0.040	-0.044	0.581
		(0.203)	(0.216)	(0.196)		
Soybean	2,985	0.051	0.071	0.041	-0.131	0.148
		(0.221)	(0.258)	(0.199)		
Tobacco	2,985	0.052	0.061	0.047	-0.062	0.443
		(0.222)	(0.240)	(0.212)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.74: Agricultural technology by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Used some fertilizer	2,985	0.801	0.809	0.797	-0.029	0.614
		(0.399)	(0.393)	(0.402)		
Used manure	2,985	0.418	0.420	0.417	-0.007	0.879
		(0.456)	(0.451)	(0.459)		
Used inorganic fertilizer	2,984	0.535	0.530	0.538	0.018	0.767
		(0.454)	(0.450)	(0.457)		
Used pesticides	2,983	0.082	0.078	0.084	0.028	0.601
		(0.244)	(0.236)	(0.248)		
Employed casual laborers	2,984	0.121	0.142	0.110	-0.103	0.017
		(0.299)	(0.318)	(0.289)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.75: Agricultural extension by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Received any extension messages	3,136	0.468	0.463	0.471	0.016	0.800
		(0.499)	(0.499)	(0.499)		
Received extension message(s) on:						
New seed varieties	3,136	0.089	0.090	0.089	-0.003	0.954
		(0.285)	(0.286)	(0.284)		
Pest control	3,136	0.105	0.100	0.107	0.023	0.640
		(0.306)	(0.300)	(0.309)		
Fertilizer use	3,136	0.068	0.053	0.075	0.088	0.064
		(0.251)	(0.225)	(0.263)		
Pit planting	3,136	0.050	0.057	0.047	-0.046	0.348
		(0.219)	(0.232)	(0.212)		
Irrigation	3,136	0.058	0.050	0.062	0.056	0.264
		(0.234)	(0.217)	(0.242)		
Composting	3,136	0.245	0.228	0.254	0.061	0.307
		(0.430)	(0.419)	(0.435)		
Marketing/crop sales	3,136	0.006	0.005	0.007	0.032	0.386
		(0.080)	(0.069)	(0.085)		
Growing/selling tobacco	3,136	0.008	0.013	0.006	-0.078	0.153
		(0.091)	(0.115)	(0.076)		
Access to credit	3,136	0.010	0.005	0.013	0.087	0.030
		(0.101)	(0.069)	(0.113)		
Forestry	3,136	0.033	0.030	0.035	0.031	0.537
		(0.179)	(0.169)	(0.184)		
General animal care	3,136	0.018	0.020	0.017	-0.024	0.535
		(0.132)	(0.140)	(0.128)		
Animal diseases/vaccination	3,136	0.020	0.022	0.020	-0.016	0.729
		(0.141)	(0.146)	(0.139)		
Fishery production	3,136	0.001	0.002	0.000	-0.062	0.154
		(0.025)	(0.044)	(0.000)		
Contract farming	3,136	0.002	0.003	0.001	-0.031	0.436
		(0.044)	(0.053)	(0.038)		
Agroforestry	3,136	0.030	0.030	0.029	-0.007	0.906
		(0.170)	(0.172)	(0.169)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.76: Agricultural yield by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Maize yield (kg/hectare)	2,600	1,193	1,288	1,145	-0.072	0.221
		(1,910)	(2,171)	(1,758)		
Pigeon pea yield (kg/hectare)	1,445	196	24	181	-0.099	0.140
		(413)	(485)	(370)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.77: Shock exposure by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Severity-adjusted number of shocks experienced in the past 5 years						
Drought	3,136	2.808	2.748	2.839	0.044	0.525
		(2.045)	(2.074)	(2.030)		
Floods	3,136	1.604	1.542	1.636	0.068	0.317
		(1.386)	(1.365)	(1.395)		
Other covariate (community-level) shocks	3,136	1.730	1.680	1.756	0.063	0.272
		(1.192)	(1.176)	(1.200)		
Other idiosyncratic (household-level) shocks	3,136	0.766	0.742	0.778	0.026	0.560
		(1.442)	(1.316)	(1.502)		
Experienced a shock in the past 30 days	3,136	0.162	0.173	0.156	-0.047	0.361
		(0.368)	(0.379)	(0.363)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.78: Safety net and humanitarian assistance program participation by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Benefited from any social safety net	3,136	0.553	0.543	0.558	0.031	0.628
		(0.497)	(0.498)	(0.497)		
Received direct food transfer	3,136	0.184	0.173	0.190	0.043	0.407
		(0.388)	(0.379)	(0.392)		
Received direct cash transfer	3,136	0.078	0.064	0.085	0.080	0.057
		(0.268)	(0.245)	(0.279)		
Participated in a public works program	3,136	0.176	0.155	0.187	0.084	0.203
		(0.381)	(0.362)	(0.390)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.79: Economic wellbeing by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Total nominal annual consumption per capita ('000 MWK)	3,136	129.891	130.771	129.448	-0.015	0.776
		(89.146)	(90.069)	(88.697)		
Poor household	3,136	0.279	0.288	0.274	-0.030	0.447
		(0.448)	(0.453)	(0.446)		
Ultra-poor household	3,136	0.530	0.517	0.537	0.040	0.443
		(0.499)	(0.500)	(0.499)		
Adequate food consumption over the past month	3,136	0.220	0.230	0.215	-0.035	0.387
		(0.414)	(0.421)	(0.411)		
Adequate housing	3,136	0.394	0.403	0.390	-0.026	0.536
		(0.489)	(0.491)	(0.488)		
Adequate clothing	3,136	0.231	0.259	0.216	-0.101	0.029
		(0.421)	(0.438)	(0.412)		
Adequate health care	3,136	0.484	0.482	0.485	0.006	0.901
		(0.500)	(0.500)	(0.500)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses. Poor households have total per capita consumption below the national poverty line of MWK179,377 but above the national food poverty line of MWK111,398. Ultra-poor households have total per capita consumption below the national food poverty line.

Table A.80: Sources of income by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Household has a non-farm source of income	3,136	0.321	0.324	0.319	-0.010	0.820
		(0.467)	(0.468)	(0.466)		
Number of non-agricultural enterprises	3,136	0.308	0.310	0.307	-0.005	0.912
		(0.533)	(0.542)	(0.528)		
Annual per capita non-farm income ('000 MWK)	3,136	3.928	3.927	3.929	0.000	0.998
		(26.165)	(13.603)	(30.598)		
Annual per capita farm income ('000 MWK)	3,136	4.929	6.549	4.113	-0.053	0.217
		(39.434)	(62.954)	(18.500)		

Note: Estimates from the BRACC Baseline Survey sample.

Table A.81: Coping strategies by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Coping Strategies Index (0-70)	3,136	13.633	13.556	13.672	0.011	0.813
		(10.225)	(10.378)	(10.150)		
Number of days in the past week household had to		2.537	2.615	2.498	-0.050	0.382
rely on less preferred or less expensive food	3,136	(2.353)	(2.432)	(2.312)		
		1.161	1.083	1.200	0.070	0.103
borrow food or rely on help from a friend or relative	3,136	(1.708)	(1.629)	(1.746)		
		3.261	3.153	3.316	0.055	0.201
rely on piece work	3,136	(2.988)	(2.966)	(2.998)		
		0.266	0.281	0.257	-0.025	0.554
send children out to beg	2,802	(0.947)	(0.974)	(0.933)		
		2.357	2.343	2.364	0.009	0.850
reduce number of meals eaten in a day	3,136	(2.404)	(2.448)	(2.383)		
		2.381	2.410	2.367	-0.018	0.731
reduce size of meals eaten in a day	3,136	(2.445)	(2.466)	(2.435)		
		13.633	13.556	13.672	0.011	0.813

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.82: Food security by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Because of lack of money or other resources during the past 12 months, somebody in the household:						
was worried about not having enough food to eat	3,135	0.897	0.892	0.900	0.023	0.595
		(0.316)	(0.337)	(0.305)		
was unable to eat healthy and nutritious food	3,135	0.889	0.886	0.890	0.014	0.769
		(0.327)	(0.353)	(0.313)		
ate only few kinds of food	3,135	0.902	0.895	0.905	0.031	0.491
		(0.313)	(0.342)	(0.298)		
skipped a meal	3,134	0.833	0.829	0.835	0.013	0.769
		(0.383)	(0.406)	(0.372)		
ate less than what they thought they should	3,134	0.863	0.860	0.865	0.014	0.750
		(0.352)	(0.371)	(0.342)		
ran out of food	3,135	0.845	0.840	0.847	0.018	0.700
		(0.375)	(0.404)	(0.360)		
was hungry but did not eat	3,133	0.815	0.814	0.815	0.002	0.961
		(0.398)	(0.418)	(0.388)		
went without eating for a day because	3,135	0.670	0.662	0.675	0.028	0.567
		(0.478)	(0.497)	(0.468)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

Table A.83: Nutritional outcomes by treatment

	N	Full sample	Control	Intervention	Normalized Difference	P-value
Calorie availability, '000 kcal per capita per day	3,135	0.002	0.002	0.002	-0.012	0.756
		(0.006)	(0.006)	(0.006)		
Protein availability, g per capita per day	3,135	61.672	58.627	63.203	0.025	0.503
		(201.215)	(116.165)	(232.524)		
Calcium availability, g per capita per day	3,135	0.218	0.195	0.229	0.026	0.406
		(1.456)	(0.437)	(1.758)		
Iron availability, mg per capita per day	3,135	19.592	18.982	19.898	0.018	0.614
		(55.892)	(31.644)	(64.745)		
Zinc availability, mg per capita per day	3,135	10.799	10.499	10.949	0.018	0.644
		(27.713)	(17.549)	(31.616)		
Vitamin A availability, RAE[52] mg per capita per day	3,135	300.457	275.399	313.058	0.125	0.044
		(311.776)	(269.545)	(330.327)		
Folate availability, DFE[53] mg per capita per day	3,135	247.701	229.011	257.100	0.026	0.438
		(1,209.612)	(520.631)	(1,436.244)		
Vitamin B12 availability, µg per capita per day	3,135	0.583	0.600	0.575	-0.009	0.822
		(2.541)	(3.319)	(2.041)		
Vitamin C availability, µg per capita per day	3,135	44.166	41.679	45.416	0.075	0.184
		(51.231)	(45.828)	(53.710)		
Household dietary diversity score (0-12)	3,135	7.145	7.141	7.147	0.003	0.966
		(2.150)	(2.195)	(2.128)		
Food consumption score (0-168)	3,136	37.729	37.753	37.717	-0.003	0.967
		(13.745)	(14.179)	(13.525)		

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses.

[52] Retinol Activity Equivalent (RAE) measures the amount of vitamin A that the body can actively absorb.

[53] Dietary Folate Equivalent (DFE) accounts for the differences in the absorption folate from different food sources.

Table A.84: Sub-sample balance

	N	P-value
Household size	2,076	0.396
Dependency ratio	1,984	0.731
Female-headed household	2,076	0.711
Age of the household head	2,068	0.058
Household head <25 years	2,068	0.123
Household head >64 years	2,075	0.059
Household head has some education	2,076	0.392
Highest level formal education in household (years)	2,076	0.475
Household head never married	2,076	0.995
Household head in monogamous marriage	2,076	0.674
Household head in polygamous marriage	2,076	0.482
Household has a member with		
difficulty seeing, even if wearing glasses	2,076	0.655
difficulty hearing, even if using hearing aid	2,076	0.951
difficulty walking or climbing steps	2,076	0.010
difficulty remembering or concentrating	2,076	0.454
difficulty with self-care e.g. washing or dressing	2,076	0.108
difficulty communicating	2,076	0.711
albinism	2,076	0.296
any disability	2,076	0.997
Durable asset index scores	2,076	0.102
Total value of all household durable assets (’000,000 MWK) – full sample	2,076	0.128
Total value of all household durable assets (’000,000 MWK) – winsorised at 99%	2,076	0.509
Agricultural asset index scores	2,076	0.217
Tropical Livestock Units	2,076	0.001
At least one household member has a bank account	2,075	0.969
Engaged in farming	2,076	0.259
Number of plots owned or managed	2,021	0.046
Plot area (acres)	1,980	0.390
Number of crops grown	1,980	0.009
Crop diversity (Simpson’s Index)	1,962	0.164
Food crops grown		
Maize	1,975	0.566
Pumpkin leaves	1,975	0.825
Sorghum	1,975	0.129

Groundnuts	1,975	0.269
Pearl millet	1,975	0.378
Rice	1,975	0.307
Cassava	1,975	0.403
Cash crops grown		
Pigeon pea	1,975	0.887
Sunflower	1,975	0.386
Soybean	1,975	0.378
Tobacco	1,975	0.860
Used manure	1,980	0.837
Used inorganic fertilizer	1,979	0.097
Used pesticides	1,979	0.468
Employed casual laborers	1,979	0.025
Received any extension messages	2,076	0.239
Received extension message(s) on:		
New seed varieties	2,076	0.879
Pest control	2,076	0.860
Fertilizer use	2,076	0.025
Pit planting	2,076	0.610
Irrigation	2,076	0.249
Composting	2,076	0.006
Marketing/crop sales	2,076	0.758
Access to credit	2,076	0.292
Forestry	2,076	0.327
General animal care	2,076	0.992
Animal diseases/vaccination	2,076	0.082
Agroforestry	2,076	0.879
Maize yield (kg/hectare)	1,705	0.085
Pigeon pea yield (kg/hectare)	945	0.002
Severity-adjusted number of shocks experienced in the past 5 years		
Drought	2,076	0.825
Floods	2,076	0.610
Other covariate (community-level) shocks	2,076	0.826
Other idiosyncratic (household-level) shocks	2,076	0.270
Experienced a shock in the past 30 days	2,076	0.483
Benefited from any social safety net	2,076	0.729
Received direct food transfer	2,076	0.188

Received direct cash transfer	2,076	0.006
Participated in a public works program	2,076	0.383
Total nominal annual consumption per capita (‘000 MWK)	2,076	0.240
Poor household	2,076	0.081
Ultra-poor household	2,076	0.043
Adequate food consumption over the past month	2,076	0.840
Adequate housing	2,076	0.235
Adequate clothing	2,076	0.114
Adequate health care	2,076	0.434
Household has a non-farm source of income	2,076	0.553
Number of non-agricultural enterprises	2,076	0.219
Annual per capita non-farm income (‘000 MWK)	2,076	0.104
Annual per capita farm income (‘000 MWK)	2,076	0.104
Coping Strategies Index (0-70)	2,076	0.661
Number of days in the past week household had to		
rely on less preferred or less expensive food	2,076	0.772
borrow food or rely on help from a friend or relative	2,076	0.141
rely on piece work	2,076	0.713
send children out to beg	1,849	0.111
reduce number of meals eaten in a day	2,076	0.113
reduce size of meals eaten in a day	2,076	0.252
Because of lack of money or other resources during the past 12 months, somebody in the household:		
was worried about not having enough food to eat	2,076	0.970
was unable to eat healthy and nutritious food	2,076	0.730
ate only few kinds of food	2,075	0.490
skipped a meal	2,075	0.962
ate less than what they thought they should	2,074	0.898
ran out of food	2,075	0.334
was hungry but did not eat	2,075	0.632
went without eating for a day because	2,076	0.809
Number of days in the past month a household member:		
did not have enough food or money to buy food	2,076	0.083
went to sleep at night hungry because there was not enough food	2,076	0.325
went a whole day and night without eating anything because there was not enough food	2,076	0.272
Calorie availability (‘000 kcal per capita per day)	2,076	0.938
Protein availability (g per capita per day)	2,076	0.509
Calcium availability (g per capita per day)	2,076	0.332

Iron availability (mg per capita per day)	2,076	0.839
Zinc availability (mg per capita per day)	2,076	0.638
Vitamin A availability (RAE[54] mg per capita per day)	2,076	0.214
Folate availability (DFE[55] mg per capita per day)	2,076	0.548
Vitamin B12 availability (µg per capita per day)	2,076	0.294
Vitamin C availability (µg per capita per day)	2,076	0.180
Household dietary diversity score (0-12)	2,076	0.670
Food consumption score (0-168)	2,076	0.780

Note: Estimates from the BRACC Baseline Survey sample. Standard deviations are in parentheses. There were 2,086 intervention households included in the experiment of which 9 had missing coupon values. The p-value is associated with the F-test from the regression of a characteristic variable on dummy variables for each subsidy level with standard errors clustered at the village-level. Variables indicating that the respondent received extension messages on growing/selling tobacco, fishery production and contract farming are omitted from this table as the small numbers of affirmative answers to them (26, 2 and 6 respectively) are insufficient to run the F-test.

[54] Retinol Activity Equivalent (RAE) measures the amount of vitamin A that the body can actively absorb.

[55] Dietary Folate Equivalent (DFE) accounts for the differences in the absorption folate from different food sources.

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