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Graduating to Resilience Labor Market Assessment Report

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LIST OF ACRONYMS

ADRA	Adventist Development and Relief Agency
AVSI	Association of Volunteers in International Service Foundation
BHA	Bureau of Humanitarian Assistance
CBT	Community-based Trainers
CDO	District Community Development Officer
COVID-19	Coronavirus Disease 2019
DCO	District Commercial Officer
DPO	District Production Officer
F&M	Foot and mouth (disease)
FAL	Functional Adult Literacy Programme
FCS	Food Consumption Score
FFBS	Farmer Field Business School
FGD	Focus group discussion
FSP	Financial service providers
G2R	Graduating to Resilience
HH	Household
ICT	Information Communications Technology
IRB	Institutional Review Board
IPA	Innovations for Poverty Action
KAP	Knowledge, attitudes, and practices
KII	Key informant interview
LC	Local Council
LMA	Labor Market Assessment
M&E	Monitoring and evaluation
MEASURE DHS	Monitoring and Evaluation to Assess and Use Results Demographic and Health Surveys
MUREC	Mildmay Uganda Research and Ethics Committee
NGO	Non-governmental Organization
ODK	Open Data Kit
PII	Personally Identifiable Information
PO	Program officer
QCS	Qualitative case studies
R&I	Refine & Implement
RCT	Randomized controlled trial
RWC	Refugee Welfare Council
SPO	District Secretary for Production
UGX	Ugandan shillings
UN	United Nations
UNHCR	United Nations High Commission for Refugees
USAID	United States Agency for International Development
VSLA	Village Savings and Loans Association
WASH	Water, Sanitation and Hygiene
WFO	World Food Organization

EXECUTIVE SUMMARY

The Graduating to Resilience Activity (the Activity) aims to help extremely poor refugee and Ugandan households in Kamwenge graduate from food insecurity and fragile livelihoods to self-reliance and resilience. The Activity works methodically with 13,200 economically active but chronically poor households using a woman-plus-household graduation approach to provide an integrated mix of interventions, including, but not limited to, coaching, farmer field business school (FFBS), village savings and loans associations (VSLAs), consumption support, asset transfer, and business coaching.

An initial Labor Market Assessment (LMA) occurred in the first award year as part of the Refine & Implement (R&I) period. Now, the second iteration of the LMA will inform any potential redesigns to Activity components with the second cohort in the Rwamwanja Refugee Settlement and surrounding sub-counties in Kamwenge district. This LMA aims to understand the contextual factors behind the observed outcomes during cohort one, as well as ways in which the Activity can adjust implementation to promote positive behaviors and reduce the barriers to improving livelihood outcomes in cohort two. See Exhibit 1 for specific objectives of this LMA.

Exhibit 1. LMA Objectives

LMA Objectives
▪ LMA Objective 1: Uncover how the various components of the Activity have affected participants' livelihood activities.
▪ LMA Objective 2: Identify barriers to livelihood development.
▪ LMA Objective 3: Investigate potential new opportunities for improving livelihoods for poor households and examine diversified household income streams.
▪ LMA Objective 4: Understand the impact of exogenous, negative shocks, such as COVID-19 and weather, on labor market and livelihoods.
▪ LMA Objective 5: Assess level of private sector engagement with participant households and explore opportunities for greater involvement.

To implement the assessment, we used a mixed-methods approach—including quantitative and qualitative data collection and analysis—to assess livelihood outcomes and opportunities of participants and their households during the final three months of cohort one. As part of our quantitative approach, we conducted a household survey and complemented it with monitoring and evaluation (M&E) data. Qualitative data included both focus group discussions (FGDs) and key informant interviews (KIIs); in addition, we analyzed the notes from previous quarterly qualitative case studies (QCS) and standing committees (see Exhibit 2. Assessment Methodology). Within each of the objectives described in Exhibit 1, we devised relevant research and learning questions (see Annex III). Section 2 provides further details on our methodology, including information on sampling, fieldwork, ethical considerations, data analysis, and limitations.

Exhibit 2. Assessment Methodology



21 Focus Group Discussions (FGDs)



28 Key Informant Interviews (KIIs)



783 Responses to Cross-Assessment Household Survey



10+ Graduating to Resilience (G2R) monitoring and evaluation (M&E) datasets

Exhibit 3 presents the key insights from the analysis of primary data and secondary Activity M&E data and relevant background documents. Please refer to Section 3 for further details on these findings.

Exhibit 3. Summary of LMA Findings by Strategic Objectives

LMA Strategic Objectives
Objective 1: Uncover how the various components of the Activity have affected participants' livelihood activities.
- On-farm work is the most common livelihood. - Participants regarded coaching as a meaningful element of the Activity. Based on quantitative data, individual coaching yielded greater livelihood diversification and increased average total net earnings compared with group coaching. Participants praised the farmer field business school (FFBS) for lessons learned on good agricultural practices. The household survey shows that about a third of participants changed their livelihoods upon receiving FFBS training. - Almost all stakeholders singled out VSLAs as a successful and impactful component of Graduating to Resilience; 94% of respondents in the household survey reported access to VSLA groups and 90% reported ease of access to credit by leveraging VSLAs, irrespective of gender, refugee status, and age. - Asset transfers supported increased livelihood diversification relative to the comparison treatment group, but had no significant effects on net earnings of household members. Although most participants (90%) used at least some of the cash-based asset transfer for purchasing assets, 73% also utilized this financial assistance for other expenditures, such as home construction, furniture, school fees, clothes, food, etc. Qualitative data revealed the asset transfer was also used for alcohol consumption and dowries.
Objective 2: Identify barriers to livelihood development.
- Business skills can help close the earnings gender gap. Men who report not having business skills earn significantly more than women in the same position. However, men and women who have business skills both report statistically similar earnings. - Illiteracy can hinder livelihood development. The quantitative data indicate that although rates of literacy vary among demographic groups, literacy is broadly associated with significantly higher earnings as those who are literate earn 173,966 UGX more than those who are illiterate (regardless of demographic group). - Access to credit and startup capital are obstacles for households: 55% of households identify lack of startup capital as a livelihood challenge. When asked about difficulties faced in accessing credit, households reported that lack of collateral, failure to obtain a loan guarantee, and high interest rates were the most consistent challenges across credit sources. - The biggest non-COVID-19 challenges to selling crops are unstable prices (37%) and receiving market price (26%). In contrast, the most common challenges in selling livestock are distance to markets (30%) and not receiving market price for the livestock (35%). For those engaged in off-farm enterprises, we find that accessing inputs (35%) and cost of inputs (32%) are the most significant challenges. - To achieve entry to more profitable value chains, government and community stakeholders mentioned that households need more knowledge and skills in modern agricultural practices (e.g., soil fertility management). The FFBS seeks to address this need. - Lack of useful information hinders livelihood development. Participants expressed a strong interest in information communication technology (ICT) for getting information on topics like crop prices, farm inputs, weather, new farming techniques. However, uptake of ICT may depend on mobile phone access and literacy.
Objective 3: Investigate potential new opportunities for improving livelihoods for poor households and examine diversified household income streams.
- Households expressed that they would like to use future cash transfers to start or expand (off-farm) businesses enterprises or (on-farm) livestock. Refugees are more interested than hosts in livestock and business enterprises; adults (31 years of age or older) are more apt than youth (18 to 30 years of age) to pursue livestock; youth are more enthusiastic than adults about off-farm business enterprises; and women are more interested than men in off-farm business enterprises. - Diversification between on-farm and off-farm activities is associated with higher earnings, on average, as compared with specializing in one livelihood or a focus solely on on-farm activities. The exception here is a pairing with casual labor, which can sometimes yield lower earnings.

▪ From qualitative data, rearing livestock such as goats, pigs, ducks, cattle, and/or chickens emerged as the most common reported livelihood that would be profitable for households because of the smaller land requirements and faster return on investment. ▪ Partner staff and government stakeholders suggested that participants could explore businesses in tailoring, art and dance, cosmetology, carpentry, and food and beverage (including catering). ▪ Stakeholders expressed that youth need more opportunities for vocational training so that they can engage in livelihoods with greater earning potential, such as salaried employment.
Objective 4: Understand the impact of exogenous, negative shocks, such as COVID-19 and weather, on labor market and livelihoods.
▪ The COVID-19 pandemic and the resulting movement restrictions affected households significantly. In particular, the closure of markets either reduced income from existing businesses or led to their total collapse. ▪ Some stakeholders felt that COVID-19 had some positive impacts on the household and community dynamics, through increased unity and connectivity between individuals and closure of pubs/bars that led to reduced alcohol consumption. ▪ According to almost all stakeholders interviewed, the main weather challenges during the past few years have been droughts and flooding. Among those affected by drought, respondents reported that droughts caused them to lose an estimated average of nearly 480,000 UGX in the last year – the third most impactful shock in our data. ▪ Government, Activity staff, and some participants felt that livelihood diversification would be most helpful to households to safeguard their income in case of shocks. Livestock, for example, serve as both a valuable asset and livelihood to safeguard against shocks. ▪ Households are not saving enough to buffer against the impacts of economic shocks.
Objective 5: Assess level of private sector engagement with participant households and explore opportunities for greater involvement.
▪ All stakeholders described some level of physical interaction between participants and the private sector, but most stakeholders reported that mistrust continues to characterize the relationship between these private sector actors and households, especially when it comes to price setting. ▪ Quality of goods and services plays an important role in shaping trust between participants and private sector providers. ▪ Regarding the continuation of existing linkages with the private sector that AVSI facilitated, participants held mixed reactions on whether such relationships would be sustained after the Activity.

Given these takeaways, we have developed the following recommendations to improve Activity components in cohort two (see Section 5 for further details):

- **Continue with coaching, particularly support for one-on-one business plan development.** An individualized focus on financial literacy and execution of business plans would support participants to increase their earnings through enhanced or diversified livelihoods.
- **Coaches and CBTs should provide linkages to vocational training.** AVSI could use coaches and asset transfers together to encourage youth participants to finance their vocational training, and link to reliable training institutes that can work with youth.
- **Reevaluate FFBS training.** AVSI should make FFBS more inclusive of men and provide more value chain options for FFBS training. FFBS sessions can also promote private sector linkages to increase opportunities for both participants and private sector actors.
- **Diversify credit sources through better linkages** between participants and formal lenders (e.g., banks). Only 4% of households reported access to formal banking institutions. AVSI could strengthen memorandums of understanding with the formal

financial sector actors to provide better linkages between participants and formal lenders (e.g., banks) to diversify credit sources for participants beyond VSLAs or money lenders that charge high interest rates.

- **Adjust the consumption support.** AVSI should consider adjusting the amount of consumption support to help protect against cash shortages during the lean season.
- **Consider adult literacy and language initiatives.** Investigate linkages with adult literacy initiatives such as the Government of Uganda's Functional Adult Literacy Programme (FAL), which incorporates a great deal of skill-specific training, in addition to literacy and numeracy.
- **Evaluate existing ICT partnerships and ensure that these providers are providing accessible ICT solutions to enable greater market integration.** Explore use of a mobile phone-based marketplace for agricultural commodities and to work with private sector agribusinesses to promote the mobile marketplace. AVSI could leverage its existing relationships with ICT providers to develop this kind of marketplace. However, coaches should continue to work with participants to increase access and knowledge regarding smart phone usage. If mobile phone-based solutions are too costly, AVSI could consider using local radios to broadcast useful livelihoods information.
- **Link households to private sector providers with services in insurance and technological solutions (e.g., drought-resistant seeds) to make households more resilient against shocks like droughts.** The Activity should improve vetting of those private or public sector input providers to ensure the drought-tolerant seed varieties supplied are reliable. In addition, AVSI should provide linkages to crop insurance options and encourage farmers to purchase it, based on their willingness and ability to pay, to reduce the risk of weather-based shocks.
- **Engage private sector actors more effectively.** AVSI should encourage regular interaction and face time between private sector actors and participants to connect participants directly with input suppliers and product buyers. AVSI could offer incentives to the private sector, through the establishment of an MOU, guaranteeing that participants will buy products from one service provider in exchange for private sector actors reaching out more to the participants. In addition, households might trust private sector actors more if they have been "vetted" by the Activity. Along these lines, AVSI could strengthen the capacity of local agents so that they are better equipped to work with participants.

I. INTRODUCTION

The Graduating to Resilience Activity (the Activity) aims to help extremely poor refugee and Ugandan households in Kamwenge graduate from conditions of food insecurity and fragile livelihoods to self-reliance and resilience. The Activity works methodically with 13,200 economically active but chronically poor households to gradually expand their livelihood capabilities so that they can improve their overall food security, nutrition, and resilience to shocks. Using a woman-plus-household graduation approach, the Activity aims to provide an integrated mix of interventions, including, but not limited to, coaching, farmer field business school (FFBS), village savings and loans associations (VSLAs), consumption support, asset transfer, and business coaching.

An initial Labor Market Assessment (LMA) occurred in the first award year as part of the Refine & Implement (R&I) period. The United States Agency for International Development (USAID) Bureau of Humanitarian Assistance (USAID/BHA) leverages this approach so that implementers can use the first award year to refine the content of the original proposed activity. Now, the second iteration will be used to inform any potential redesigns to Activity components with the second cohort in the Rwamwanja Refugee Settlement (the settlement) and surrounding sub counties in Kamwenge district. The second LMA examines how the Activity components affected livelihood diversification and income generation among participants in cohort one to refine implementation in cohort two. Whereas descriptive data exist on livelihood outcomes of the Activity to date, this LMA aims to understand the contextual factors behind the observed outcomes as well as ways in which the Activity can adjust implementation to promote positive behaviors and reduce the barriers to improving livelihood outcomes in cohort two.

The specific objectives of the second LMA are listed in Exhibit 4.

Exhibit 4: LMA Objectives

LMA Objective 1	Uncover how the various components of the Activity have affected participants' livelihood activities.
LMA Objective 2	Identify barriers to livelihood development.
LMA Objective 3	Investigate potential new opportunities for improving livelihoods for poor households and examine diversified household income streams.
LMA Objective 4	Understand the impact of exogenous, negative shocks, such as COVID-19 and weather, on labor market and livelihoods.
LMA Objective 5	Assess level of private sector engagement with participant households and explore opportunities for greater involvement.

2. METHODOLOGY

The overarching objective of the study is to support the Activity to develop and operationalize appropriate interventions that are effective for extremely poor households. Our mixed-methods approach used a cross-sectional research design that draws upon quantitative and qualitative data collection, analysis, and triangulation to understand each of the LMA objectives outlined in Exhibit 4. This section presents the methodological design of the study, including the overall study design and sample size. As part of our quantitative approach, we conducted a household survey and complemented it with monitoring and evaluation (M&E) data. Qualitative data were collected through both focus group discussions (FGDs) and key informant interviews (KIs); additionally, we analyzed the notes from previous quarterly case studies (QCS) and standing committees. Within each of the objectives described in Exhibit 4, we devised relevant research and learning questions. See Annex III for the full table of objectives and the corresponding questions.

2.1 Desk Review

Prior to data analysis, the research team conducted a document and literature review to establish the context for the instrument development and to supplement our quantitative and qualitative data collection. Given the objectives of this study, the evaluation team reviewed literature from research reports and assessments with similar goals to understand labor markets. This review served to provide insights into key metrics for measuring household livelihoods and the surrounding labor market, such as number of livelihoods and earnings/profitability. The literature review also served to inform indicators for understanding the challenges that households might regularly face to improving their livelihoods and how AVSI can adjust programming for the second cohort to address those barriers.

For example, an assessment in Ethiopia used measures of food security, income sources, and productive assets owned (land, livestock, and tools) over time to examine the relationship of household resilience to income seasonality and economic shocks.¹ The data collection instrument for the LMA employs similar indicators on nutrition to capture food security, as well as individual household members' economic activity and household assets. Determining which assets and activities are most useful in building resilience will enable AVSI to emphasize these aspects in the cohort two programming.

We also looked at the *Labor Market Assessment for Youth in Rwamwanja Refugee Settlement and Hosting Communities in Kamwenge District, Western Uganda*, from Save the Children as background information to the labor market context and to complement our information on vocational training and opportunities for youth. For example, although this study found that youth would benefit from skills such as carpentry and mechanics learned from training institutions, they still face lack of startup capital to translate skills into profitable businesses. Another key aspect of our study is understanding where current skills do not match the demands of the labor market. For this task, we looked to a report on the Croatian labor market, which examined employment level, education, skillsets, and local labor opportunities.² The study also explores how economic activities improve quality of living

¹ Vaitla, Bapu; Tesfay, Girmay; Rounseville, Megan; Maxwell, Daniel. 2012. Resilience and Livelihoods Change in Tigray, Ethiopia. Feinstein International Center. <https://fic.tufts.edu/assets/Resilience-and-Livelihoods-Change-in-Tigray-FINAL-30-10-12.pdf>.

² Christiaensen, Luc, Celine Ferre, Rubil Ivica, Teo Matkovic, and Tara Sharafudheen. (2019). Jobs challenges in Slavonia, Croatia – A subnational labor market assessment. Jobs Working Paper No. 35.

for poor households and how demographic factors relate to labor outcomes, as well as how to address skill gaps. Further, literature on the relationship between access to credit and labor outcomes suggests that households observe higher wages and community welfare effects when there are lower liquidity costs.³ We measured aspects of household credit access to understand how AVSI might provide participants with resources to endure lean periods as a community.

In addition, prior to the development of qualitative and quantitative data collection tools, the assessment team reviewed existing assessments, reports, and research from cohort one. This review not only provided key context for designing the group discussion guides, but also helped to contextualize findings and, in combination with the LMA data, develop evidence-based recommendations. The assessment team reviewed the following sources during the initial desk review:

- Graduating to Resilience Quarterly Reports
- Indicator Performance Tracking Table – Annual Result Report
- Coaching Needs Assessment Report
- Individual Coaching Guide
- Group Coaching Guide
- Facilitation and Coaching Skills Guide
- Programming Guide
- Youth Assessment Report
- Cohort One Labor Market Assessment
- April and June 2020 COVID-19 Context Assessments
- Standing Committee Reports
- Qualitative Case Study Summaries
- Meta-Analysis of the Graduating to Resilience Activity’s Initial Refinement Phase

2.2 Qualitative Data Collection

We conducted 28 KIs and 21 FGDs for our qualitative data collection. AVSI field staff collected this data from April through June 2021 (see

³ Fink, Gunther, B. Kelsey Jack, and Felix Masiye. (2018). Seasonal liquidity, rural labor markets and agricultural production. Abdul Latif Jameel Poverty Action Lab. https://www.povertyactionlab.org/sites/default/files/research-paper/Seasonal-Liquidity-rural-labor-markets_Fink-Jack-Masiye_April2018.pdf

Exhibit 5 for details). We followed a purposive sampling strategy to identify key informants and focus group participants, considering factors such as distance, availability, willingness to engage in interviews and FGDs, involvement with Graduating to Resilience, level of knowledge on labor markets, and subject matter expertise or contextual knowledge to inform new labor market activities in cohort two. To identify households for participant FGDs, the research team coordinated with an informed village head as well as coaches who have worked with these households. Participation was voluntary and we obtained verbal consent.

Exhibit 5. Qualitative Sample

AVSI Program Staff			
Stakeholder	Qualitative Modality	Number	Number of Participants
Chief of Party	KII	1	1
Program Officers	FGD	1	5
Coaches	FGD	4	17
Community-Based Trainers (CBTs)	FGD	4	16
Partner/Other NGO Staff			
Stakeholder	Qualitative Modality	Number	Number of Participants
United Nations High Commission for Refugees (UNHCR)	KII	1	1
Finn Church Aid	KII	1	1
Lutheran World Federation	KII	1	1
Adventist Development and Relief Agency (ADRA)	KII	1	1
Government			
Stakeholder	Qualitative Modality	Number	Number of Participants
District Community Development Officer (CDO)	KII	5	5
District Secretary for Production (SPO)	KII	2	2
District Commercial Officer (DCO)	KII	1	1
District Production Officer (DPO)	KII	1	1
Community			
Stakeholder	Qualitative Modality	Number	Number of Participants
Local Council 3 (LC3)	KII	4	4
Local Council 5 (LC5)	KII	1	1
Refugee Welfare Council (RWC)	FGD	1	6
Farmers Groups	FGD	2	16
Private Sector			
Stakeholder	Qualitative Modality	Number	Number of Participants
Input dealers (agricultural products)	KII	4	4
Formal financial institution representatives	KII	2	2
Output buyers	KII	1	1
Information Communications Technology (ICT)	KII	2	2
Participants			
Stakeholder	Qualitative Modality	Number	Number of Participants
Host Women	FGD	1	9
Host Male	FGD	1	12
Host Youth Male	FGD	1	9
Host Youth Female	FGD	1	6
Refugee Women	FGD	1	10
Refugee Male	FGD	1	8
Refugee Youth Male	FGD	1	8
Refugee Youth Female	FGD	1	8

FGD Protocols

FGDs with program participants provided valuable feedback on attitudes and practices of participants in the labor market and whether they may have changed throughout Activity implementation.

Importantly, FGDs with these participants helped with insight into how cohort one project activities have been implemented and what external factors may have contributed to the observed changes.

After preparing draft interview protocols for each group, the assessment team shared the drafts with local Activity staff, who workshopped protocol questions with the intended participant group. This review process allowed the assessment team to gather participants' and coaches' perceptions of and feedback on the relevance, wording, and clarity of the questions. The assessment team conducted this exercise in both host and refugee communities to ensure that all questions were contextually appropriate in both settings and were sensitive to the unique perspectives of members in both communities.⁴ The assessment team incorporated participants' feedback into the final versions of the group discussion protocols, which are provided in the included documentation for the qualitative data collection instruments.

M&E Data

During the first two years of implementation, AVSI conducted QCS with 20 households about every quarter. By going back to the same households at these intervals, the Activity obtained rich and detailed information on the progression of livelihood opportunities and challenges. We include in this report some of the findings from those QCS to supplement our own data collection in this round of the LMA, and to provide insight where our current data may not have especially conclusive findings.

In addition, we provide several references in this report to notes from the standing committees, also conducted once each quarter to convene representative stakeholders from participant populations and gather their perspectives on select topics.

2.3 Quantitative Data Collection

The assessment team gathered quantitative data through a household survey and used existing M&E data to examine the current state of the labor market among both Ugandan and refugee communities. The household survey for the LMA incorporates questions from the Nutrition, Gender, and Youth assessments occurring concurrently on the same population. This broader household survey features questions related these four assessments and were combined in the interest of efficiency and limiting demands of the respondents' time.

The assessment team conducted the quantitative survey with Activity participants in Biguli, Bihanga, Bwizi, and Nkoma sub counties, the Nkoma/Katallyeba town council, and within the Rwamwanja Refugee Settlement. The survey, administered to the households' primary participant and their spouse, explored a breadth of topics (see Exhibit 6). For the purposes of the LMA, the household survey provided quantitative data and contextual information to understand livelihood patterns and participants' perceptions of how Activity components affect livelihood diversification, income generation, and livelihood development overall.

The full questionnaire is included in documentation for the quantitative instruments.

⁴ The assessment team received participatory feedback on 7 protocols: youth primary guide (host and refugee), youth non-primary guide (host and refugee), non-youth primary guide (host and refugee), and coach guide.

Exhibit 6. Quantitative Survey Topics

Survey Section	Respondent	Topics
1	Primary Participant and Spouse (or other opposite-gendered member of the household, if no spouse or if spouse unavailable)	Household Demographics Role in Household Decision Making Access to Productive Capital Access to Credit Time Allocation Group Membership Perceptions of Gender Equality Gender and Information Communication Technology
2	Primary Participant (primary participant provides responses for herself and up to 3 additional household members)	Education and Skills Gender Roles Livelihood Activities On-Farm Crop Activities (including crops, crop labor, and agricultural inputs, assets, harvest, and information) Salaried Employment Casual Labor Off-Farm Activities
3	Primary Participant	Livestock Activities (including livestock raised, inputs, and assets) Transportation Self-Efficacy Food Security and Nutrition Water, Sanitation, and Hygiene (WASH) Health Status Gender-Based Violence

2.4 M&E Data

Supplementing the household survey, the assessment team made use of monitoring data collected during cohort one of the Activity. Specifically, the team used information on participant demographics (age, gender, and nationality) during sample construction, and merged this information with the final household survey dataset to provide demographic disaggregation for the new data collected. The assessment team also used the Post Distribution Monitoring of Asset Transfer dataset to understand how households spent those funds provided by the Activity. The team used the COVID-19 Context Assessment to bolster understanding of how the local population reacted to the COVID-19 pandemic and associated regulations. The team used the Coach Annual dataset to construct a nutrition indicator on the household level to investigate food security outcomes at endline.

2.5 Household Survey

Sampling

The assessment team utilized a two-stage random stratified sampling process to select the quantitative sample. For the **first stage**, the assessment team randomly sampled households from the current list of all active participant households. Because more than 92% of Graduating to Resilience households include women as primary participants, who are the focus of the Activity, we intended to focus on households with a female primary participant. We stratified our household sample by geography, age, and nationality of the female primary participant to ensure equal representation of respondents across these characteristics.

For the **second stage** of our sampling, we selected the female primary participant in each household to act as the principal survey respondent for the household. We then randomly selected up to three

additional members from the household.⁵ Within households, we excluded children (those younger than 18) and short-term visitors (residing in the household for less than 6 months). The primary participant was asked to respond to a subset of questions about each household member (part 2 of the survey). Spouses⁶ of the female primary participant were also asked to separately answer a subset of questions (part 1 of the survey).

The assessment team aimed to recruit a sample size of 800 households. Evidence from Monitoring and Evaluation to Assess and Use Results Demographic and Health Surveys (MEASURE DHS)⁷ shows that a household sample size of 800 on woman-based indicators for high fertility countries like Uganda can deliver a reasonable precision for a wide range of demographic and economic variables. Our sample size is further justified by an influential food security and livelihood assessment guide⁸ for statistical random sampling that recommends between 150 and 250 households to be visited for each reporting group to be compared. Thus, our sample size of 800 was deemed large enough for us to conduct statistical *t*-tests of differences between outcomes of interest – at 95% level of confidence – between host vs refugee, youth vs adult, and men vs women. Even within host (N = 400) and refugee (N = 400) communities, our survey was designed so that sample sizes were expected to be within the 150–250 range to allow comparison between adult vs youth and men vs women for a range of outcomes.

To allow for non-responses, refusals, or other factors that prevent a household from being surveyed, the assessment team provided the field team with an additional 80 households, for a total sampling frame of 880 households. We instructed the field team to end data collection once a total of 800 households were surveyed. Annex II shows the sampling frame used to inform data collection for the quantitative household survey.

Sample Characteristics

During fieldwork, enumerators attempted to reach as many of the primary participants as time and funding would permit. The final sample used for the survey is shown in Exhibit 7. The total number of primary participants interviewed was 783. Among these, 384 were from refugee households and 392 from host community households; 562 respondents were adults (31 years of age or older) and 214 were youth (18–30 years); and 776 of the 783 primary participant respondents were female. Moreover, in total, we were able to collect data on 1643 individual household members, including non-primary participants. This sample is well distributed across demographic groups of interest to provide a representative sample of cohort one participants for the purposes of this assessment.

In Exhibit 8, we further analyze demographics of our primary participants and their respective households. Overall, in both host and refugee communities, the average household size is about seven. Our household survey reveals that refugee primary participants are significantly more likely (82%) to be currently married than hosts (73%) and are more likely to be youth (36%) than hosts (19%). However, host community respondents in our sample are significantly more likely (45%) to have female-headed households than refugees in the settlement (29%).

⁵ If the household had fewer than 4 eligible members (primary participant and other adults), then all eligible members were selected.

⁶ If the primary participant did not have a spouse, or if the spouse was not available to be surveyed, then another adult male member of the household was asked to complete the spouse's portion of the survey.

⁷ https://dhsprogram.com/pubs/pdf/DHSM4/DHS6_Sampling_Manual_Sept2012_DHSM4.pdf

⁸ <https://www.actionagainsthunger.org/sites/default/files/publications/acf-fsl-manual-final-10-lr.pdf>

Exhibit 7. Household Survey Actual Sample Collected

Demographic Group	N Size Overall (Household – primary participants)	N Size Individual-Level (Up to four household members per household)
Overall	783	1643
Refugee	384	745
Host	392	898
Adult	562	992
Youth	214	651
Male	7 ⁹	701
Female	776	942

Note: There was drop-off of respondents throughout the fielding of the survey, with some respondents completing only earlier parts of the survey. This drop-off was less than 5% of the overall sample and did not affect the overall distribution of respondents.

Exhibit 8. Primary Participant Household Demographics by Community Type

	Overall	Refugee	Host
Number of Household Members	7.02	6.92	7.13
Currently Married (%)	78%	82%	73%***
Female-Headed Households (%)	37%	29%	45%***
Youth Primary Participants (%)	28%	36%	19%***
N	776	384	392

*Note: Statistical significance is shown for t-test differences between refugee and host. Significance markers are always placed on the host values (*p < 0.10; **p < 0.05; ***p < 0.01).*

Data on the number of household members are from the M&E Annual Survey, administrated by AVSI.

2.6 Fieldwork

The team chose to rely on AVSI coaches to collect data for the cohort two assessment because the coaches possessed existing knowledge of the Activity, had existing relationships with participants, and could easily identify the location of participants' homes. These factors create an efficiency gain compared with using external enumerators, thereby reducing the number of interactions between data collectors and people in Activity communities. This allowed data collection to safely continue in person while minimizing the risk of spreading COVID-19.

The team conducted a training and pilot of the quantitative survey with 50 coaches, 25 from the host and 25 from the refugee community, between March 15 and 18, 2021. The coaches were trained on how to use the survey tools, the purpose of the tools, proper data collection practices, and ethical considerations. A second training was conducted with an additional 156 coaches on March 24–25. During this training, concerns were identified regarding the functionality of the household survey and how data were stored after collection. To reduce the risk of error during full-scale data collection, the team chose to recode the survey during the first three weeks of April 2021, after which all 206 enumerators participated in a refresher training to orient the coaches to the new tool on April 26.

⁹ There were 7 males who were primary participants but answered only part 3.

With issues in the survey tool fixed, the team launched data collection on April 27. The field team divided the coaches into nine regional teams, overseen by program officers (POs) with support from M&E officers. The M&E officers visited the field throughout data collection to answer any questions the coaches had and resolve issues with the operation of the survey or mobile phones used in data collection. The field staff attempted to address all issues in the field as they were identified, and POs were encouraged to identify workable solutions that did not require major logistical changes. For instance, POs were able to fix occurrences of the survey not pulling participant information by updating the enumerator's tablets and survey software in the field. Furthermore, fieldwork delays created scheduling conflicts between data collection and maternity or scheduled annual leave for some coaches, which increased the survey load on the remaining personnel. To account for this, the POs reassigned the households allocated to the coaches on leave equally among the remaining coaches. Finally, the length of the survey tool created some issues for the field team, as this caused some participants to complain and grow uninterested during the interview, whereas others (especially spouses) found it difficult to honor their scheduled interview because of scheduling delays and competing priorities. The number of interviews that had to be rescheduled reduced the number of interviews that could be completed each day, which affected the size of the final sample.

The coaches conducted surveys through May 14, 2021, at which time the team concluded that we had achieved an appropriately large sample size and further days in the field would not yield significantly more data because of the issues described above.

COVID Mitigation

The assessment team was informed by local staff on June 16 that four AVSI staff in Kamwenge district tested positive for COVID-19 and that the overall positivity rate in the district was over 20%. Considering these numbers, and guidance from the Office of the Prime Minister and UNHCR to limit engagement in the district to only essential work after 25th June, the assessment team decided to reduce any FGDs which were not already scheduled from 10 participants to five to allow for greater social distancing. The team set 25th June as the date to review the completion status of the FGDs to determine whether data collection should be done remotely or discontinued, however all FGDs were completed prior to this date. In addition, we used our prior experience adapting data collection in this context by requiring all coaches to wear masks while conducting surveys and focus groups; providing participants with face masks if they did not have them; providing hand sanitizer; maintaining social distancing during interviews and focus groups; and holding all interviews and focus groups in a private, outdoor location, where feasible.

2.7 Ethical Considerations

Institutional Review Board

The team outlined the ethical considerations of the study and our processes for protecting participants' privacy and confidentiality and reducing potential harm in our application to the Mildmay Uganda Research Ethics Committee (MUREC) Institutional Review Board (IRB) in Uganda. We submitted the IRB package, encompassing the study proposal, protection of human subjects plan, data collection instruments, and informed consent forms, to the review board on January 11. MUREC returned the IRB protocol with clarification questions on February 1, which our team responded to and resubmitted the IRB package on February 17. We received final approval from MUREC to conduct the assessment on March 15.

Informed Consent

We informed all survey, FGD, and KII participants that their responses would be confidential prior to their agreement to participate. The consent/assent process allowed us to inform participants that they may refuse to answer any question or leave the interview or discussion at any time. Participants were assured that refusing to participate or leaving any interview would not harm them in any way.

During the informed consent/assent process the interviewer explained the study and the goals of participation. Individuals who agreed to participate were required to sign a written consent form – either signature or thumbprint – before each survey, FGD, or KII. The interviewers then ensured that the surveys, FGDs, and KIIs were conducted in a private setting to ensure confidentiality of responses, including those conducted remotely. Interviewers ensured that surveys were conducted one-on-one with the respondent or spouse (where applicable) so no one else could hear the respondent's answers. Group discussion facilitators ensured that the FGDs were held where respondents felt free to discuss openly so community members outside the group could not overhear their responses. Finally, interviewers and facilitators were instructed during training on how to request informed consent/assent.

2.8 Data Analysis and Quality

Data processing and analysis reduced raw qualitative data into manageable proportions, summarizing the data into recurring patterns and using the data to highlight points of possible intervention during the design phase of project. The qualitative analyst from IMPAQ (now AIR) supported the analysis of qualitative data and the principal investigator (PI) from IMPAQ led the triangulation of these data with secondary quantitative data sources.

Quantitative. Taking into consideration the LMA objectives, as outlined in the introduction of this document, the LMA team used household survey data to estimate descriptive statistics that summarize bivariate relationships between demographic characteristics and labor market outcomes of interest and identify recurrent patterns and trends in the quantitative data. In addition, to understand the effects of the asset transfer and the coaching model used, we derive conclusions based on a randomized control trial (RCT) design of cohort one participants (see Annex II, Exhibit A8 for details about the interventions by treatment arms of the RCT). Metrics include the types of livelihoods the households are currently involved in, the earnings potential and stability of these income sources, and responses to economic shocks.

We collected survey data using tablets with Open Data Kit (ODK) software. We used the household surveys to capture detailed information on households' income sources, particularly as they relate to barriers to accessing new opportunities. The team further stratified these descriptive statistics to reveal subgroup differences and explored these variations while accounting for other demographics, such as marital status, head of household's gender, refugee status, and treatment arm. Comparison of treatment arms allowed us to address key questions on households' ability to shift their business to respond to labor market demand and existing versus emerging opportunities. Analyzing treatment versus control group differences also helped to inform our qualitative assessment of participants' experiences. Although the analyses in this report are primarily descriptive, the RCT design helps us identify causal effects for questions about effects of asset transfers and whether individual coaching is superior to group coaching with respect to key livelihood metrics of interest (e.g., livelihood diversification and earnings).

Qualitative. The qualitative analysis elaborates on the survey results and explores the nuances behind them. For example, qualitative data provide a greater awareness of how, at a broad level, the various dimensions of livelihood diversification from business plan creation to business operation may affect households or how household interactions with private sector actors may improve their livelihood outcomes.

To conduct this qualitative data analysis, the assessment team identified recurrent patterns and trends in the qualitative data to address the research questions. First, we developed a preliminary coding structure to apply to notes and transcripts, which we then revised based on initial data. We then used a matrix analysis to categorize, triangulate, synthesize, and summarize the raw data. After reviewing all transcripts from FGDs and KIs, we stripped these notes of personally identifiable information (PII) and uploaded them to NVivo for analysis. In doing so, we identified common themes using the constant comparative method to draw out areas of overlap and divergence to understand the labor market context and the effectiveness of livelihood interventions to date. We especially considered any notable commonalities or divergences among refugee vs host communities.

2.9 Limitations

Coaches as data collectors. There were clear benefits to having the coaches conduct survey data collection – for instance, coaches know where participants live and participants are more likely to agree to a long survey because of their familiarity with the coach. Still, there is a possibility that the existing relationship between coach and participant may bias the respondent’s answer in some way, such as the respondent providing a more socially desirable answer to please their coach, or the coach assisting the participant in recalling past information. Taking these factors into consideration, the assessment team concluded that the benefits of working with Activity staff as enumerators far outweighed the cons and mitigated these concerns through: 1) training enumerators on survey data collection, including explaining to respondents in detail that the information collected as part of the survey will be used to improve the Activity design and will benefit cohort two participants and has no benefits/consequences for them based on responses they provide; 2) triangulating responses through qualitative data collection gathered by POs; and 3) recognizing that the coach–participant relationship was near the end, which might reduce the likelihood of respondents prioritizing pleasing the coaches with their responses over being candid, as data collection took place during the close-out period of cohort one implementation.

Lack of comparability with cohort one LMA. Although the Activity conducted a LMA before the start of the first cohort, that baseline assessment of the labor market was aimed primarily to inform the program’s initial design. In contrast, the purpose of our current assessment is to study participants’ engagement with the Activity and identify current barriers and opportunities for cohort two programming. In addition, our current cohort one assessment is much more complex in its design, using a staged stratified sampling; covers a wider array of topics; and is integrated with the Gender, Youth, and Nutrition and WASH KAP assessments. For example, data are collected at the individual level for household members, and not just household level or primary participant level. Furthermore, we collect new data on a wide array of outcomes directly linked to the Activity, such as earnings, profits, livelihood diversification, detailed information on crops and input utilization, time use, and the like that were not collected in the baseline.

Length and complexity of the survey questionnaire. Building upon lessons learned from the first refinement period, the assessment team developed a comprehensive assessment framework to integrate the five individual assessments, including Value Chain, Labor Market, Gender, Nutrition and

WASH KAP, and Youth Assessments, to ensure that key research and learning questions are answered and the Activity implementers have meaningful, timely information to make decisions regarding the design of cohort two. By creating a comprehensive assessment framework, the assessment team was able to streamline data collection, minimize data analysis, and mitigate survey fatigue among participants and staff. However, the length and complexity of the survey required exceptional skills from the field staff. On average, it took approximately six hours per household in the refugee community and approximately five hours in the host community to complete the entire survey. Because of the length and complexity of the survey, field staff conducted the household survey in two visits per household, reducing the amount of time respondents spent answering questions per visit to three hours in the refugee community and 2.5 hours in the host community.

Causal interpretation of results. Although we report results from the RCT, our study is primarily a descriptive, mixed methods study, and not all conclusions can be interpreted as causal. As such, the measures of impact are based on perceived impact as reported by participants or based on qualitative insights. A separate impact evaluation being conducted by Innovations for Poverty Action will study causal effects from the RCT in more depth.

3. FINDINGS

We have organized our findings across both quantitative and qualitative data around the five LMA objectives stated in Section 2.

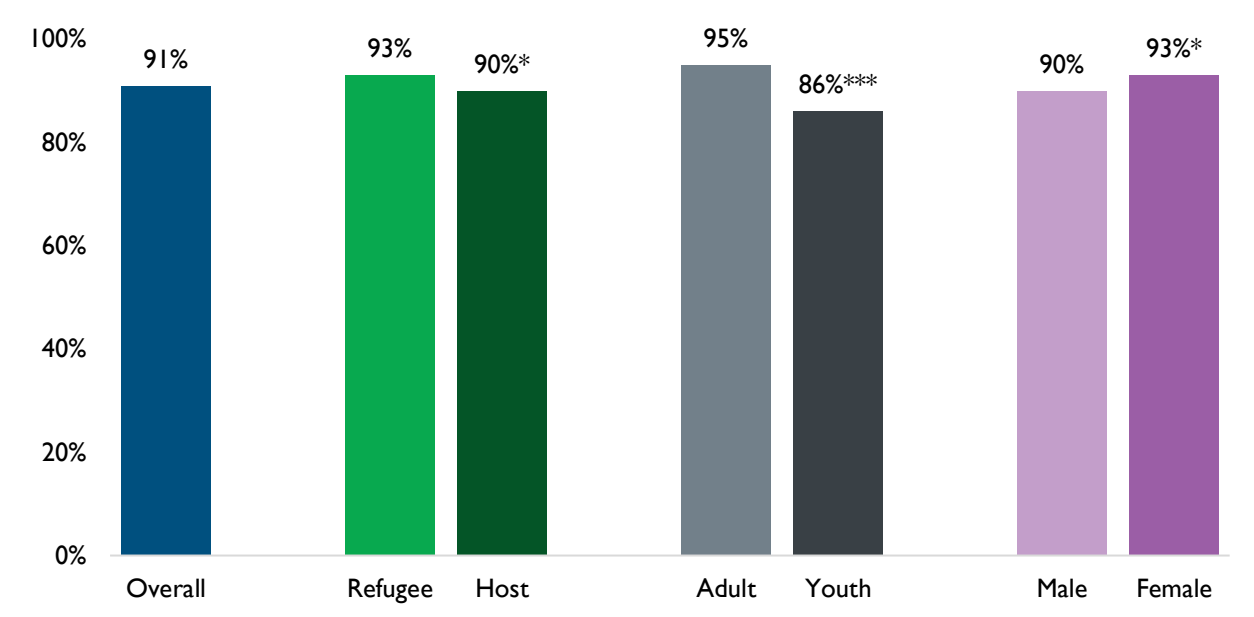
LMA Objective 1: Uncover how the various components of the Activity have affected participants' livelihoods.

We first discuss findings about livelihood patterns and then transition to how various components of the Activity have affected participants' livelihood development.

3.1 Livelihood Patterns

In Exhibit 9, we show the share of household members involved in any livelihood activity at the time of the survey. We defined economic activity as participation in either casual labor, salaried employment, off-farm, or farm work. Female primary participants reported data on behalf of themselves and other household members. We find that overall, 91% of the 1643 household members surveyed are engaged in an economic activity. Refugees are slightly more likely to work than hosts, and women are slightly more likely to work than men. However, youth were much less likely to work than adults, with only 86% of youth surveyed reporting engagement in income earning activities. Females are 3% more likely to work than males, although this difference is marginally (statistically) significant at the 10% level.

Exhibit 9. Share of Household Members Involved in Any Livelihood



*Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing (*p < 0.10; **p < 0.05; ***p < 0.01).*

N = 1643 overall; showing all household members (individual-level).

Exhibit 10 shows the definitions of the major types of livelihoods from our household survey questionnaire. Primary participants used these definitions to describe the types of activities in which they and up to three other household members are currently engaged.

Exhibit 10. Definitions Major Livelihood Types

Livelihood Type	Definition
Salaried Employment	“You have a running contract with an employer and an agreed compensation paid monthly”
Off-Farm Livestock	“Animal trading, butcher, selling milk, fish trading, other”
Off-Farm Crop	“Produce trading, trading vegetables and fruits, trading in Irish or sweet potatoes, milling business, petty trade, banana trading, other”
Off-Farm Enterprise	“Transport, bicycle repair and spare parts, shoes (sell and repair), solar shop, tailoring, second hand or new clothes trading, selling maize flour, trading in palm oil, salon (hair dressing and barber), restaurant, retail shop, grocery, photography, meat roasting, fermented porridge, other”
Casual Labor	<i>No additional explanation provided.</i>
On-Farm Livestock	“Sheep rearing, piggery, goat rearing, poultry, goat rearing, cattle rearing, other”
On-Farm Cropping	“Farming bananas, beans, groundnuts, vegetables, fruits, Irish or sweet potatoes, maize, rice or other”

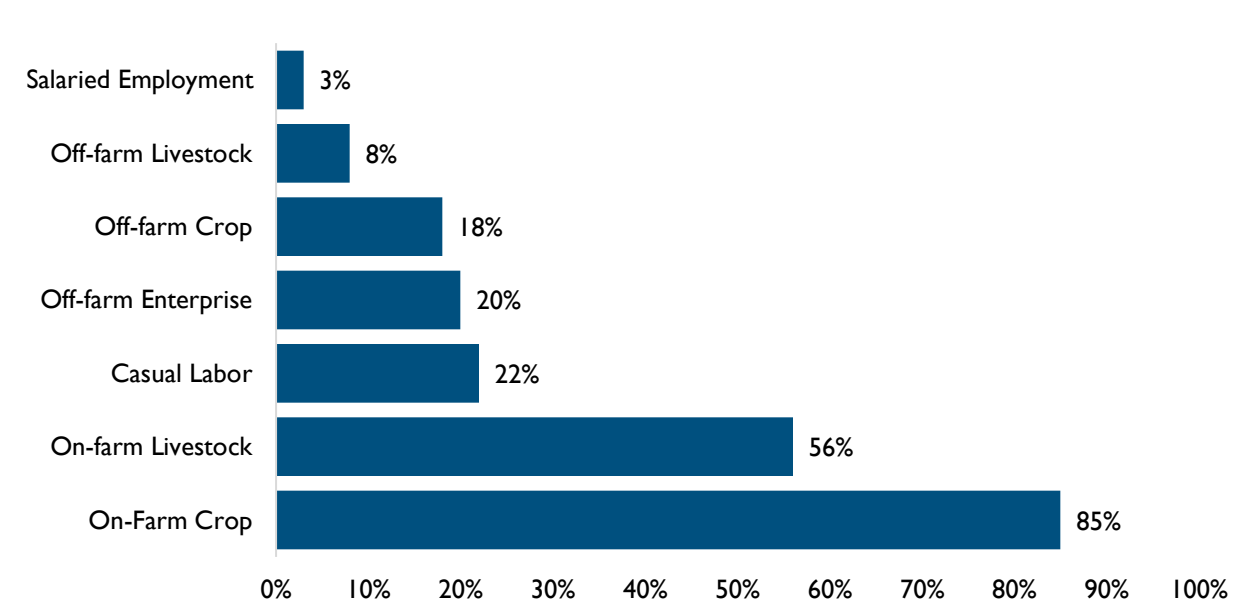
In Exhibit 11, we show the distribution of livelihood types across household members who were involved in any economic activity at the time of the survey. We find that overall, the most common livelihood among the those who engage in income-earning activities is on-farm agriculture, at 85%. On-farm livestock is the next most popular livelihood (56%), followed by casual labor (22%), off-farm enterprise (20%), and off-farm crop (18%). Off-farm enterprise includes economic activities such as selling maize flour (12% of the subset of members engaged in off-farm enterprises), running a retail shop (11% of the subset of members engaged in off-farm enterprises), and running a grocery (10% of the subset of members engaged in off-farm enterprises). However, salaried employment is the least common major livelihood (3%).

Many refugee and host community households in treatment arms one and two described starting new businesses such as tailoring; selling food in markets; selling new shoes and secondhand clothes; selling produce; and buying, rearing, or selling domestic animals such as goats, chickens, and cattle. Multiple households reported that their businesses were doing well and generating good profits. For example, one refugee community household mentioned buying a goat for 300,000 UGX and making a profit by being able to sell the kid for 370,000 UGX. However, in the QCS, we found reports that some refugee households have faced difficulties with domestic animal businesses, such as hens and ducks getting sick and dying, or not having an adequate area for goats to graze. A 2019 United Nations (UN) report on refugee livelihoods in Uganda reported that 76% of refugee households had a source of income, 34% of those households were engaged in farming, and 16% of households earn income from casual labor.¹⁰ Our household survey had comparatively more refugees involved in both on-farm enterprises (85%) and casual labor (28%). This difference in on-farm enterprises and casual labor may be threefold: 1) the focus of Graduating to Resilience FFBS to engage in farming as a business; 2) the switch of many refugee households from off-farm economic activity to on-farm during COVID-19, when many off-farm activities could not operate, as noted in the June 2020 COVID-19 Context

¹⁰ <https://reliefweb.int/report/uganda/refugee-access-livelihoods-and-housing-land-and-property-rwamwanja-may-2019>

Assessment; and 3) the UN report was relative to Uganda as a whole, so there may be regional differences between our study context and rest of the country.

Exhibit 11. Individual-Level Engagement in Main Livelihood Types



N = 1503; showing all household members (individual-level), if involved in economic activities.

Looking at demographic differences on livelihood engagement, refugees are significantly more likely than hosts to engage in off-farm activities, including casual labor (R: 28% vs. H: 17%), off-farm enterprises (R: 25% vs. H: 16%), off-farm crop trading (R: 22% vs. H: 15%), and off-farm livestock trading (R: 11% vs. H: 6%). However, hosts and refugees had similar rates of on-farm activities. This suggests that refugee participants engage in more livelihoods and have more livelihood diversity compared with host community participants.

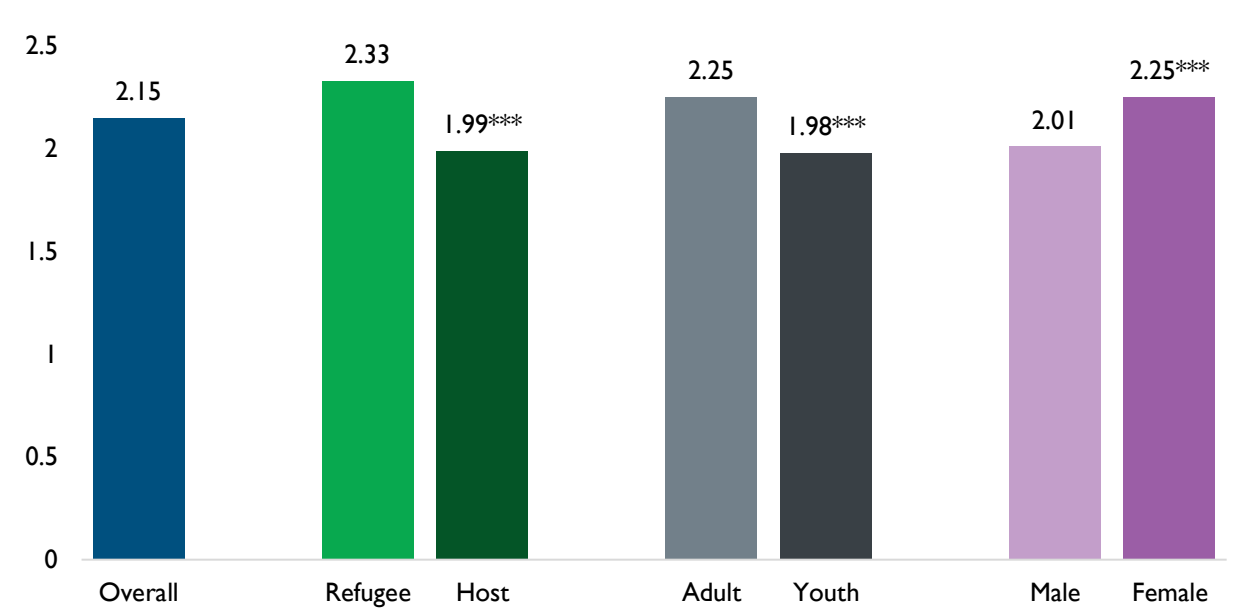
Age also plays a factor in livelihood choices. Adult household members are significantly more likely than youth to engage in on-farm activities such as cropping (A: 88% vs. Y: 79%) and livestock rearing (A: 65% vs. Y: 41%). However, adults are less likely than youth to engage in casual labor (A: 20% vs. Y: 25%) and salaried employment (A: 2% vs. Y: 4%). Among those engaged in casual labor, adults are also significantly more likely than youth to engage in agricultural casual labor (A: 77% vs. Y: 65%; difference is statistically significant at the 5% level) and adults are significantly less likely than youth to engage in non-agricultural casual labor (A: 17% vs. Y: 28%; difference is statistically significant at the 5% level). These livelihood choices imply that youth may be less interested in traditional on-farm activities than their elders, or that adults have greater access to land. Indeed, smallholder households (defined as those with 5 or fewer acres of land owned) with adult primary participants own significantly more land than households with youth primary participants (A: 1.46 acres vs. Y: 1.00 acres; difference is statistically significant at the 1% level). Additionally, youth may be more engaged in off-farm vocational opportunities; as one non-governmental organization (NGO) partner staff member commented, youth may find more employment in manual labor-intensive tasks that “require more energy,” such as mechanics, masonry, and carpentry.

Further, a household member’s gender is associated with differing livelihood choices. Men are significantly less likely than women to engage in on-farm activities such as planting and weeding (M: 77% vs. W: 91%) and livestock rearing (M: 47% vs. W: 62%), whereas men are significantly more likely

than women to engage in casual labor (M: 26% vs W: 19%). Refugee welfare council members shared that more men are educated and “easily get jobs,” which could explain their opportunities off-farm. In addition, similar to the comment noted earlier regarding energy levels, that same NGO partner staff member reported that men may also find more work in labor-intensive tasks. Interestingly, men are less likely than women to engage in off-farm crop trading (M: 14% vs. W: 21%), implying that women both grow the crops and bring them to market.

The Activity is designed so that smallholder farmers can diversify their livelihoods and thus increase their resilience when faced with shocks. Research shows that livelihood diversification is linked to improved income, wealth, consumption, nutrition, agricultural productivity, and food security.¹¹ In the QCS data, among those households with more than one business, participants always reported that at least one of their income streams was performing well. This was the case for one host household head, who abandoned raising chickens to instead make and sell chapatti, while her son was able to provide reliable income through a salon business. In Exhibit 12 we show the average number of livelihood activities disaggregated by participant nationality, gender, and age. Overall, we find that households are engaged in 2.15 livelihood activities on average, with refugees engaged in a greater number of livelihoods than hosts and females engaged in more livelihood activities than males. However, youth are engaged in fewer livelihood activities than adults. All the subgroup differences are statistically significant at the 1% level.

Exhibit 12. Average Number of Livelihood Activities per Person



*Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing (*p < 0.10; **p < 0.05; ***p < 0.01).*

N = 1503 overall; showing all household members (individual-level), if involved in economic activities.

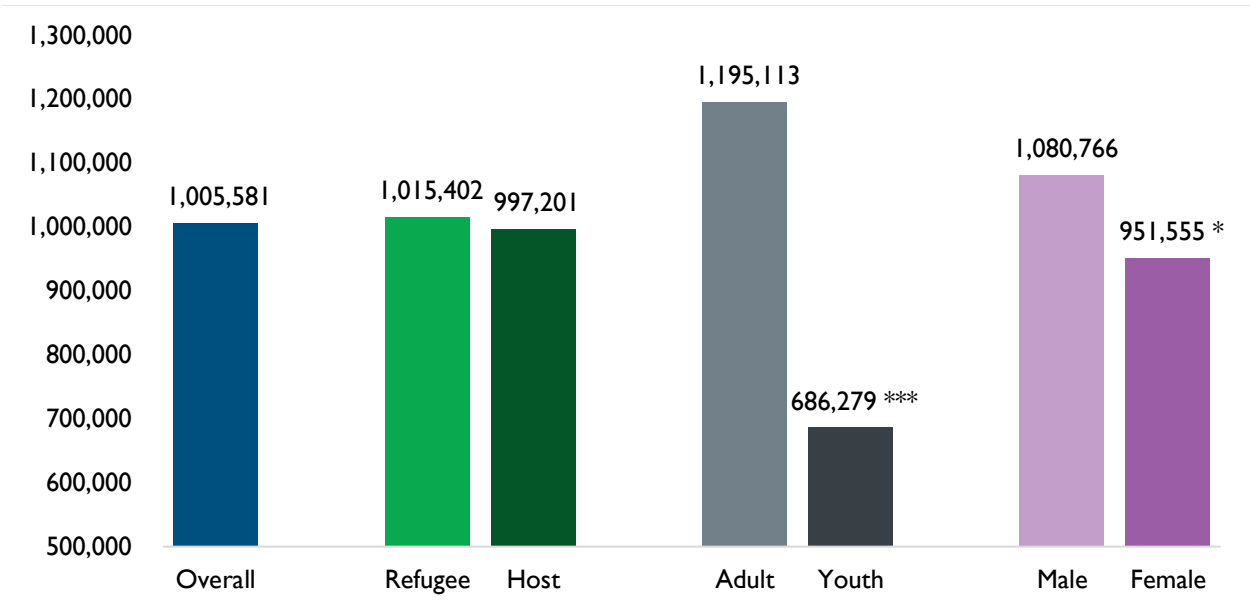
In

Exhibit 13, we show the average annual earnings across all livelihood activities per person. On average, individual earnings were about 1 million UGX. However, youth make significantly less than

¹¹ <https://www.tandfonline.com/doi/pdf/10.1080/00220388.2015.1046445?needAccess=true>

adults, and females make significantly less than males. It is important to note the gender earnings gap, as women make less than men despite working on a greater number of economic activities (Exhibit).

Exhibit 13. Average Earnings across All Activities in Past 12 Months



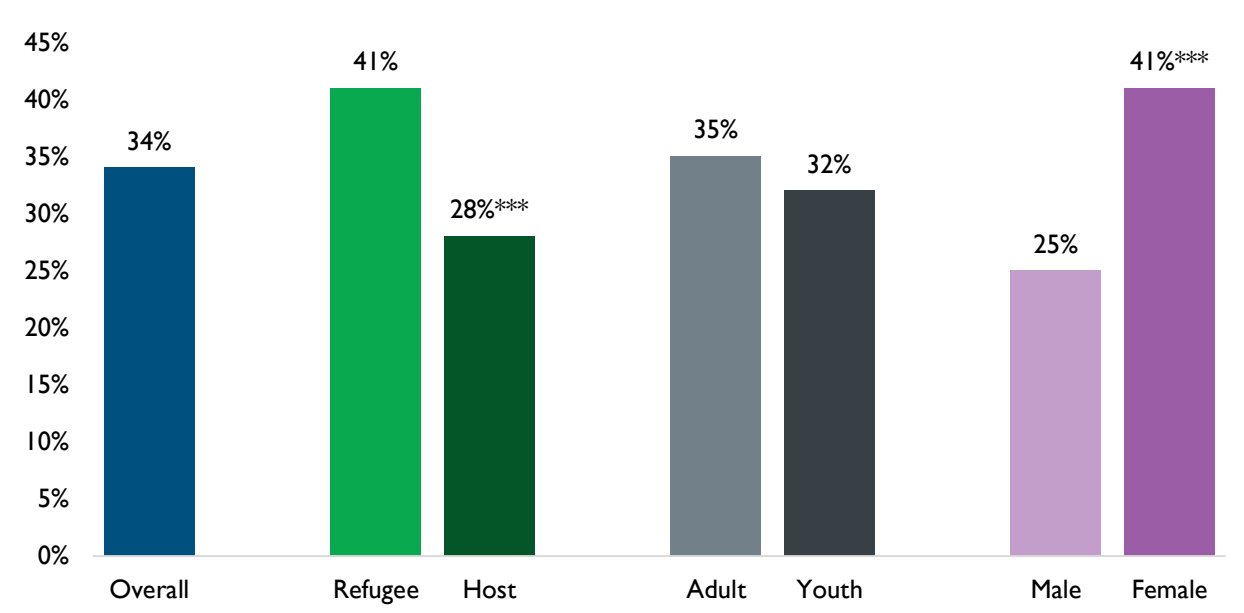
*Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing (*p < 0.10; **p < 0.05; ***p < 0.01).*
N = 1427 overall; showing all household members (individual-level), if engaged in economic activities, trimmed at 99th percentile for outliers.

Overall, about a third of participants reported changing their livelihoods because of the Activity. Our KIIs and the findings from the QCS shed further light on how participants changed their livelihoods because of external factors. For example, the QCS indicate that many host and refugee households have changed their business goals for a variety of reasons. One respondent in the host community said she did not pursue her original business goal of buying and selling coffee because her son was interested in retail shops. Another respondent in the refugee community had planned to open a canteen but found the expense of purchasing a refrigerator prohibitive, so she started selling potatoes and bananas instead. Other examples include changing from a grocery business to goat rearing because of location constraints and selling food in the market instead of goat rearing because of goats dying.

Refugees were 13% more likely to change livelihoods than hosts and females were 16% more likely to change livelihoods than males. We did not observe any significant difference between youth and adults in terms of change in livelihoods, which is consistent with lower livelihood diversification and earnings among the youth relative to adults (

Exhibit 13Error! Reference source not found.).

Exhibit 14. Changed Livelihood after Receiving Graduating to Resilience Training



Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing ($p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).*

N = 1439 overall; showing all household members (individual-level) if involved in economic activities and answered Yes/No to this question.

3.2 Coaching and Business Coaching

Among respondents in interviews and focus groups, coaching emerged as a beneficial component of Graduating to Resilience, and stakeholders believe it has led to numerous improvements that have led to better livelihood outcomes, such as greater joint household decision making and business planning.

Community-based Trainers (CBTs) believe that coaching, "...increased unity, shared responsibility, and decision-making in running the livelihoods activities." Participants concurred that joint household planning has improved. For example, male refugee youth described how they learned, "...to engage our wives and other household members in decision-making at home..." whereas male host youth mentioned that now, "...there is unity and peaceful ways of handling misunderstandings." However, male adults and female youth in the host community cautioned that improvements have been moderate, and for men who have minimal involvement in Graduating to Resilience, their willingness to engage with their wives on household key decisions regarding livelihoods remains limited.

The QCS and LMA qualitative data also highlight the benefits of business coaching. One host household in the QCS described being better "oriented" on how to conduct a business, including customer service and having quality products for customers. In the data collected for this LMA, female refugee participants described feeling fearful to start businesses, "...but with trainings and support from the coaches and CBTs, we have been able to sustain them." Youth women in the host community concurred and explained that business coaching has helped them to start small businesses, like pancake selling, to earn a living.

Men and women used to operate differently but ... [now] we plan together, do projects together, plan selling together and decide together on how to spend.

FGD with male refugee youth

Individual vs. Group Coaching

AVSI implemented the Activity within the framework of a randomized controlled trial (RCT). Three treatment variations were tested by AVSI in parallel during cohort one: treatment arm one - Standard Model; treatment arm two - Group Coaching Model; and treatment arm three - Empowerment Model. The only difference between treatment arm one and treatment arm two was that the former included the Individual Coaching Model, whereas arm two used the Group Coaching Model (see Annex II, Exhibit A8 for details about the interventions by treatment arms of the RCT).

In Exhibit , we show that the participants in treatment arm one engaged in more livelihood activities than participants in treatment arm two; these differences are statistically significant at the 5% level.¹² Furthermore, participants participating in individual coaching also earn about 200,000 UGX more than participants in the group coaching model, with the earnings premium for individual coaching being statically significant at the 5% level.

Exhibit 15. Average Number of Livelihood Activities and Earnings by Coaching Model

Indicator	Treatment Arm 1	Treatment Arm 2
Average number of livelihood activities	2.26	2.11**
N	515	465
Average earnings across all activities in past 12 months	1,135,968 UGX	930,883 UGX***
N	485	435

Note: Statistical significance is shown for t-test differences between treatment arm one and treatment arm two.

*Significance markers are always placed on treatment arm two (*p < 0.10; **p < 0.05; ***p < 0.01).*

Showing all household members (individual-level) if involved in economic activities; earnings data was trimmed at 99th percentile for outliers.

Among respondents in interviews and focus groups, the coaching component of the Activity was appreciated by all three treatment groups and across both refugee and host households surveyed. Those interviewed were universally positive about their relationships with their coaches, both their life-skill coach and business coach. There was typically a very high level of reported understanding of messages, with information being reinforced as necessary when respondents need added help.

Although we find in the QCS that individual coaching was linked to greater earnings and livelihood diversification, none of the households in treatment arm two reported that the group coaching inhibited their learning in any way. Rather, they said that groupmates became friends who would assist in notetaking or reviewing material when they had missed a lesson or did not understand

¹² Treatment arm three offers individual coaching but offers no asset transfers, whereas treatment arm two offers group coaching as well as asset transfers. As we cannot disentangle the effects of asset transfers from the effects of offering a certain model of coaching by comparing treatment arms two and three, we prefer not to compare treatment arm two results with treatment arm three.

something. Group learning is associated with a support network of peers who assist with information retention.¹³

Activity personnel noted that individual coaching may have led to better household dynamics between spouses because this approach engaged both the primary participant and her partner compared with the group coaching model, which often involved only the primary participants.

3.3 FFBS Training

According to findings from the QCS, standing committees, and the KIs and FGDs conducted for this LMA, households have gained valuable knowledge on agricultural practices, such as planting, intercropping, pest control, application of pesticides, fertilizer usage, mulching, and weeding. Female refugee participants noted that they consider FFBS activities as having the most impact and commented that FFBS lessons have helped them, "...realize the importance of timely planting, use of improved seed, and use of organic manures and pesticides." In the host community, adult women discussed acquiring, "...better skills and knowledge of farming, like making organic manure" via the FFBS trainings. Male refugee participants remarked that they have been able to adapt knowledge gained from the FFBS on quality seeds, transplantation, and organic manures into other value chains of interest, such as vanilla and onions.

I feel confident to engage in agriculture because I have the skills obtained from the FFBS trainings.

FGD with adult female host

Our households have been able to produce food both for household consumption and sale of surplus using knowledge on good agronomic practices which were taught during the Activity tenure.

FGD with adult male host

A District Production Officer (DPO) commended the Activity's FFBS trainings for improving participant livelihoods, "...especially in livestock," and reported, "...extension services offered by the CBTs have really helped the participants improve their household incomes due to increased production." The DPO provided an example of how milk production has grown, which, "...has translated into increased household incomes." In addition, across multiple rounds of the QCS, households commented favorably on the training received to prepare backyard gardens, such as using sacks and irrigation, to grow vegetables.

Despite mostly positive sentiments toward FFBS trainings, perspectives gathered in the LMA data collection and responses from QCS and standing committees indicate that several challenges still hinder uptake of FFBS information, such as limited land size, adverse weather, and lack of access to quality inputs because of financial difficulties. One refugee household in treatment arm three remarked that the techniques taught in FFBS focused on growing groundnuts and cannot be readily applied to cultivating vegetables. An adult refugee male commented that the focus on maize, beans, and groundnuts value chains limits the impact of the FFBS in terms of income earned because other crops, such as ginger or garlic, may be more profitable.

Personal motivation may also influence uptake of FFBS lessons. In the QCS, one host community household disagreed in general with certain techniques taught, especially planting small gardens in addition to groundnuts because doing so takes up land and time. A refugee household concurred

¹³ <https://www.tandfonline.com/doi/pdf/10.1080/13636829900200074>

that application of the techniques can be tiresome and time consuming but remarked that this sentiment may reflect unfamiliarity with new practices; consequently, the laboriousness of such tasks may diminish with time. Youth refugee women in the LMA data collection agreed with these sentiments, as they discussed the process of making organic manure or pesticides “tedious” and, “...wastes a lot of time.”

An adult male host in the LMA data collection mentioned as well that FFBS activities have not been helpful to male spouses because, “...women have been more involved in the sessions and their male counterparts are left out.” Other community, program staff, and partner staff stakeholders reiterated that FFBS participants consist primarily of females because of the women-plus household approach, which focused on the woman in the household as the primary participant.

In sum, most households seem to have internalized the FFBS information acquired and understand how to adapt the techniques to their fields and backyard gardens; however, despite general optimism about yields after FFBS trainings, households identified certain challenges in the uptake and translation of knowledge into daily practice.

3.4 VSLAs

Almost all stakeholders singled out VSLAs as a successful and impactful component of Graduating to Resilience, which has led to improvements in household livelihoods. Specifically, Activity staff felt most enthused that VSLAs have ingrained a “savings culture,” which CBTs felt, “...has gone beyond our expectations.” These CBTs elaborated that people used to save only monthly but now do so on a weekly basis without push from Activity staff.

According to one Local Council 3 (LC3) interviewee, households have been able to dive into new livelihoods, “...because they have the ability to access money and borrow from the VSLA.” Male refugee youth reiterated that their participation in the VSLA activities taught them, “...how to save, borrow money from the groups, and invest in our businesses.” CBTs agreed that the asset transfer and the VSLA have, “...become very good sources of capital which made people to start many economic activities and businesses.”

Members in one farmers group acknowledged that because of the loans from the VSLAs they can now, “...construct good houses and cater for the needs of our households.” Coaches remarked that households have, “...constructed new and better houses.” CBTs explained that these improvements also extend to WASH facilities, as households have been able to install tippy taps and latrines.

Our quantitative data also support qualitative findings: 97% of respondents report access to VSLA groups, and about 90% of respondents (see

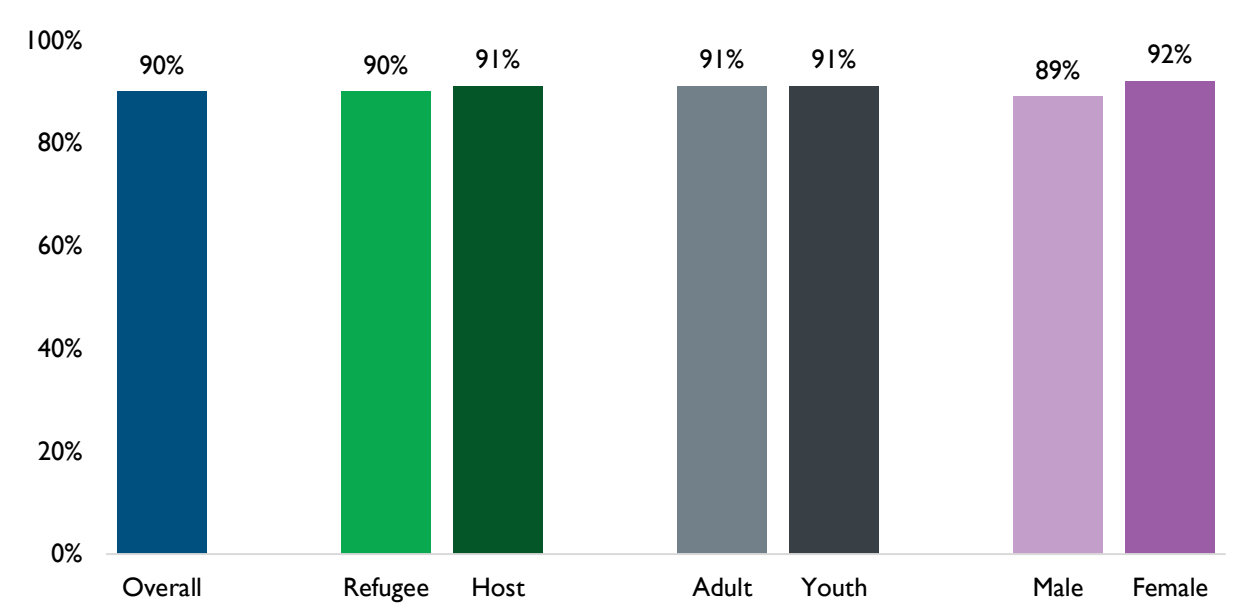
Exhibit) say it is easy to access credit from this source irrespective of gender, nationality, or age.

Exhibit 16. Easy to Access Credit: VSLA



Participants save and know where to turn to when they get a challenge.

FGD with coaches



Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

N = 1161; showing primary participants and spouse responses (individual-level; Part 1)

3.5 Asset Transfers

One-time cash asset transfers complement monthly consumption support cash transfers to provide extremely poor refugees and host community households the means to invest in income-generating enterprises and to help them to meet their economic and nutrition needs. Treatment arm three, the Empowerment Model, does not receive the asset transfer.

Based on qualitative data collected for this LMA, the asset transfer has been useful for households to acquire goats and cows for livelihoods in animal rearing. As one LC3 respondent pointed out, “Some households have set up businesses like piggery as a result of cash transfers.” Coaches explained that in both the host and refugee communities, households purchased land for agriculture and livestock for animal rearing businesses. Adult refugee males confirmed this opinion and stated that asset transfers have helped them with diversifying into goats, piggery, and poultry. As a result, households have been able to use the income from new livelihood activities and businesses to build houses, send children to school, and increase savings in VSLAs. Outside of livelihood expansion, some households diverted this asset transfer to meeting basic needs, such as home construction, school fees, food, motorcycles, clothes, and dowries.

Despite some of the positive sentiment toward asset transfers, a few stakeholders felt that this support also had more limited or detrimental impacts. CBTs warned that some participants have misused the asset transfer, “...because there was no need to pay back the money.” Further, they argued that the asset did not come at the proper time because the transfer occurred before the financial literacy trainings so that, “...not all participants were equipped with the knowledge and skills to do business.” These CBTs suggested that AVSI should put conditions such as small interest rate or release the money in phases.

A community development officer (CDO) commented quite strongly that AVSI’s financial assistance via consumption support and asset transfers, “...caused domestic violence, broken homes, and

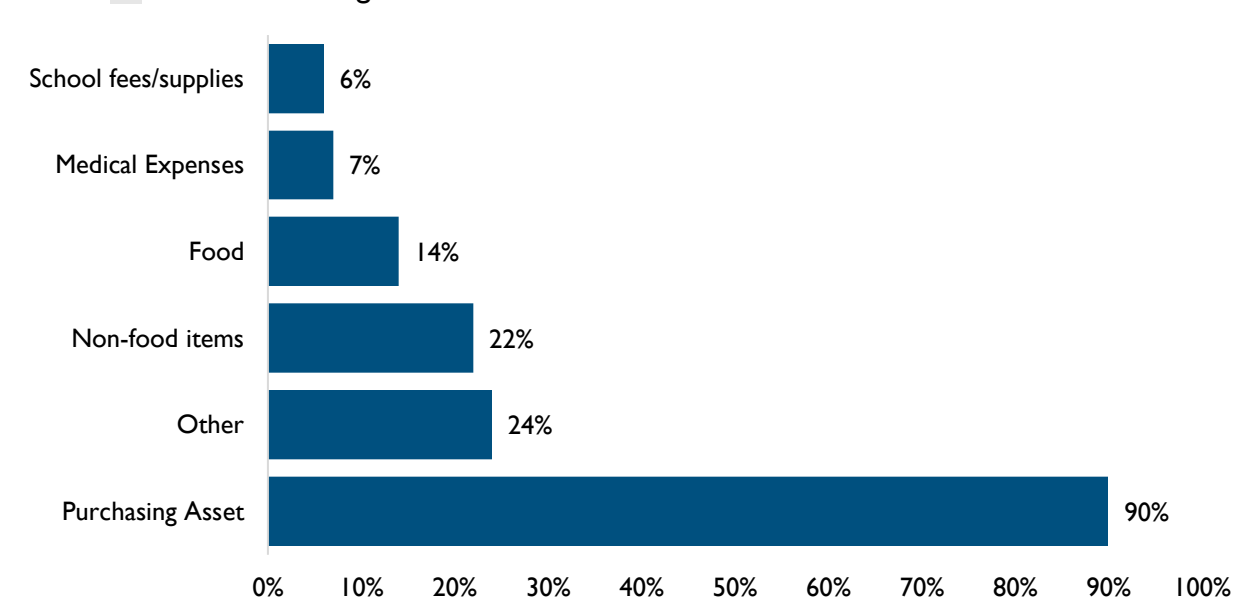
children suffered.” Additionally, this government stakeholder reported that because the money, “...goes to the wives’ phone,” which has led to, “...misunderstanding between couples.” Adult males in the host community expressed that households have “broken up” because the Activity “awarded” the asset transfer to women and commented that households, “...not sufficiently skilled in business management...” did not understand how to use the funds and had, “...no clear investment plans.”

Another complaint that arose related to the distribution of households into different arms, with some not receiving the asset transfer. Coaches noted that some treatment arm three households could not understand why they were excluded from receiving an asset transfer, which made them more reluctant to use the VSLAs as support for starting their businesses (despite the household survey indicating that 96 percent of households are engaged with VSLAs). An LC3 respondent mentioned, “The procedures of participant recruitment made people feel neglected by the project.” Additionally, this interviewee, as well as other LC3s, suggested that AVSI could better involve local leaders in this process moving forward.

Qualitative insights are supported by quantitative data as well. Almost all households, 96% of the 2,125 respondents from whom monitoring data were collected, said they had spent at least some of the asset transfer money given by the Activity. In

, we show how asset transfers were used by those who used them. Most (90%) used at least some of the money for purchasing assets, such as tools or livestock. However, as mentioned above, participants also used money for variety of other purposes. The other things purchased included mainly home construction materials, livestock housing/shelter, hiring casual labor, or renting land. Moreover, asset transfer money was used for non-food items (22%) and food items (14%) as well. It is possible, as suggested from qualitative interviews, that some of the non-food money went to dowries and alcohol.

Exhibit 17. Household Usage of Asset Transfer



*Post-Distribution Monitoring of Asset Transfer (Aug 2019): What did you spend your money on?
N = 2041; showing all primary participants (household-level) if they said they had “spent some of the money they received from the AVSI Foundation” (96% of the 2125 respondents said they had spent the funds).*

Perhaps the most rigorous way to study the effects of asset transfer is by comparing treatment arm one and treatment arm three. Treatment arm three was the same as arm one, except that AVSI did not provide asset transfers to participants in arm three. In Exhibit , we show that asset transfers are linked to significantly greater livelihood diversity. However, when it comes to earnings/profits across all livelihoods, asset transfers do not make a difference.

There are several possible reasons that treatment arm one is not yielding greater earnings despite having an asset transfer that leads to greater livelihood diversity. Participants with asset transfers may be putting all their effort and time into exploring new businesses and trying to consolidate their new business, instead of specializing in livelihoods in which they have established expertise. Furthermore, COVID-19 may have depressed the returns to their businesses; if we follow up with households over a longer period, especially when COVID-19 is less of a concern, the returns from asset transfers may be better realized. The team also found, as noted previously, that the asset transfer created friction between partners, and households often used this money for non-business purposes, such as household furniture, dowries, and school fees.

Exhibit 18. Livelihood Indicators by Asset Transfer Model

Indicator	Treatment Arm One	Treatment Arm Three
Average number of livelihood activities	2.26	2.07**
N	515	523
Average earnings across all activities in past 12 months	1,135,968 UGX	1,069,900 UGX
N	485	507

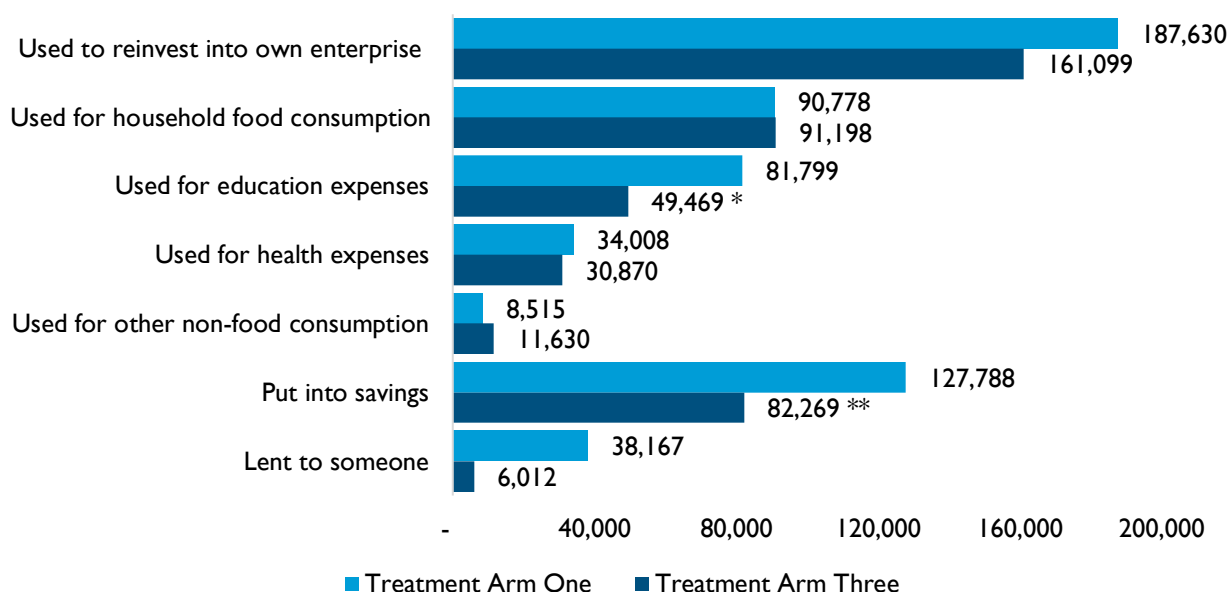
Note: Statistical significance is shown for t-test differences between treatment arm one and treatment arm three. Significance markers are always placed on treatment arm three ($p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). Showing all household members (individual-level), if involved in economic activities; earnings data was trimmed at 99th percentile for outliers.*

Examining

Exhibit , we observe that households in treatment arm one put significantly more into savings than households in treatment arm three in the most recent month (difference is statistically significant at the 5% level only) and spent less on education (statistically significant at 10% level only). No other expenditure patterns were statistically different between the two groups.¹⁴ If we take these data to be indicative of typical savings behavior, then the reduced savings of treatment arm three could account for the similar values of funds used to reinvest in their own enterprises. Given that treatment arms one and three had similar average yearly earnings, the asset transfer might have allowed participants in treatment arm one to use the funds on both savings and productive assets for their businesses, whereas treatment arm three participants were driven to reduce their savings to compete and buy similar productive assets as treatment arm one participants.

¹⁴ Statistical significance helps us learn about the precision of our estimates. It is possible for values to be different in magnitude between treatment arm one and treatment arm three, but because of high degree of variability in responses, the differences may not be statistically significant.

Exhibit 19. Average Expenditure Amounts in the Last Month by Asset Transfer Model



Note: Statistical significance is shown for t-test differences between treatment arm one and treatment arm three. Significance markers are always placed on treatment arm three (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). $N = 236$ treatment arm one, $N = 253$ treatment arm three. Showing household-level data; expenditure values trimmed at the 99th percentile to remove outliers; includes zeros for those who did not report that they spent money on a given category in the last month.

LMA Objective 2: Identify barriers to livelihood development

Inputs such as human and financial capital, as well as production and rearing processes, and sales of goods and services (including one's own time through casual labor or salaried work) shape sustainable livelihood development in this context. Further, certain cross-cutting factors, like access to information, permeate throughout the life cycle of products and services offered. As part of this second research objective, we examine the patterns and barriers in these areas for cohort one households and explore the implications for livelihood diversification and earnings. We discuss the following barriers: human capital, financial capital, selling to the market, production and rearing, and access to information.

3.6 Human Capital

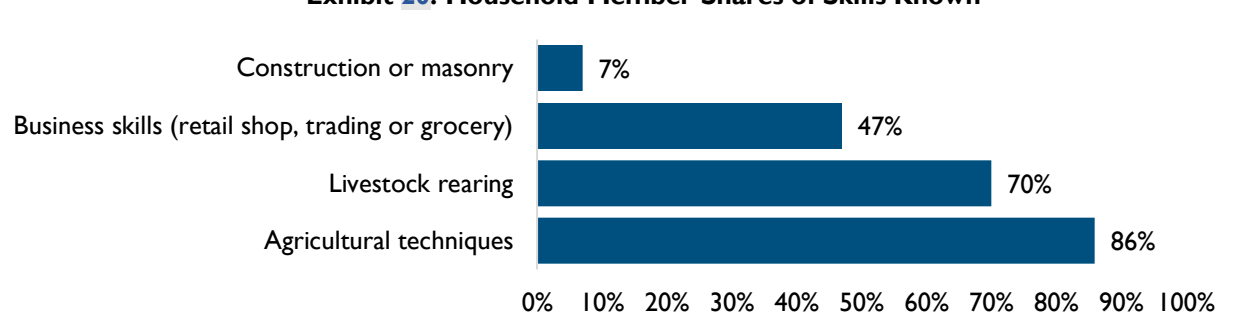
Skills

In

Exhibit , we show the skill distribution of household members engaged in any economic activity. We see that three categories of skills dominate: agricultural techniques (86%), livestock rearing (70%), and business skills such as running retail, grocery, and trading (47%). In contrast, vocational skills such as tailoring, hairdressing, restaurants/catering, repairs (e.g., bicycle, motorcycle, shoes), photography, and butchery are demonstrated by 5% or fewer of participants. This finding is unsurprising as the activity made a strategic decision not to offer vocational skills trainings in cohort one. Refugees are significantly more likely than hosts to have business skills (R: 57% vs H: 38%) and livestock rearing skills (R: 73% vs H: 68%). Women are more likely than men to have business skills (M: 43% vs W: 50%), but less likely to have construction skills (M: 16% vs W: 1%). Adults are much more likely to

have skills in agricultural techniques (A: 91% vs Y: 80%) and livestock rearing (A: 78% vs Y: 58%) than the youth.

Exhibit 20. Household Member Shares of Skills Known



N = 1646; showing all household members (individual-level), if engaged in economic activities.

Exhibit , Exhibit 22, and Exhibit 23 Exhibit Exhibit show the average earnings in the past 12 months based on whether participants possess the three most common skills: agricultural techniques, livestock rearing skills, or business skills. A consistent trend across earnings for skilled versus unskilled individuals in livestock rearing and business is that those who are skilled have significantly higher net earnings. Looking at the impact of agricultural techniques on earnings, refugees were the only demographic group to report significantly higher net earnings if they were skilled vs. unskilled in agriculture, suggesting that additional training in agricultural best practices benefits refugee more than host participants.

When examining gender dynamics, men who report not having business skills earn significantly more than women in the same position. However, men and women with business skills report statistically similar earnings, suggesting that women gain more than men from business skills training. This is not the case for skills in agricultural techniques or livestock rearing practices, in which skilled men earn significantly more than skilled women. Our qualitative findings indicate that men may have more experience with farm activities because of their ability to access land for farming. When considering a women-plus-household approach for the second cohort of participants, the Activity should consider emphasizing training in business as a means of promoting women's earnings and encouraging gender equity.

Exhibit 21. Average Total Earnings (UGX) in Past 12 months by Agricultural Skills, by Demographic Groups

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
Earnings if skilled in agricultural techniques	1,070,442	1,066,122	1,074,214	1,257,104	730,301***	1,170,817	1,004,399**
N	1,270	592	678	820	450	504	766
Earnings if not skilled in agricultural techniques	884,438	788,223	992,355	1,154,757	637,195***	967,748	783,528
N	157	83	74	75	82	86	71
Difference in earnings by skill in agricultural techniques	186,004*	277,899**	81,859	102,347	93,106	203,069	220,871

*Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing. Significance is also shown on the differences, tested vertically between those who do vs. those who do not possess the given skill (*p < 0.10; **p < 0.05; ***p < 0.01).*

Showing household members (individual-level) if engaged in economic activity and do or do not possess the given skill; earnings data was trimmed at 99th percentile for outliers.

Exhibit 22. Average Total Earnings (UGX) in Past 12 Months by Livestock Skills, by Demographic Groups

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
Earnings if skilled in livestock rearing	1,172,162	1,139,595	1,202,983	1,350,396	795,128***	1,272,753	1,102,733**
N	1,053	512	541	715	338	430	623
Earnings if not skilled in livestock rearing	705,967	693,828	715,344	843,884	578,003***	787,713	644,848
N	374	163	211	180	194	160	214
Difference in earnings by skill in livestock rearing	466,195***	445,767***	487,639***	506,512***	217,125***	485,040***	457,885***

Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing. Significance is also shown on the differences, tested vertically between those who do vs. those who do not possess the given skill (*p < 0.10; **p < 0.05; ***p < 0.01).

Showing household members (individual-level) if engaged in economic activity and do or do not possess the given skill; earnings data was trimmed at 99th percentile for outliers.

Exhibit 23. Average Total Earnings (UGX) in Past 12 Months by Business Skills, by Demographic Groups

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
Earnings if skilled in business	1,216,093	1,143,133	1,314,760*	1,424,007	852,447***	1,299,703	1,164,656
N	701	403	298	446	255	267	434
Earnings if not skilled in business	889,582	867,220	902,980	1,074,221	590,295***	1,010,209	792,902**
N	726	272	454	449	277	323	403
Difference in earnings by skill in business	326,511***	275,913***	411,780***	349,786***	262,152***	289,494***	371,754***

Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing. Significance is also shown on the differences, tested vertically between those who do vs. those who do not possess the given skill (*p < 0.10; **p < 0.05; ***p < 0.01).

Showing household members (individual-level) if engaged in economic activity and do or do not possess the given skill; earnings data was trimmed at 99th percentile for outliers.

When asked about barriers to putting their skills into practice, participants reported lack of startup capital (54%), lack of training (43%), lack of connections (30%), lack of available jobs (25%), and language barrier (24%). An FGD with adult women from the refugee community revealed that language barriers present a significant constraint to accessing employment opportunities because, "...people from the host community may not easily communicate with us and prefer employing their fellow nationals." When asked about opportunities they have had to utilize their skills, only 10% of participants noted using private sector linkages, reinforcing that the private sector connections with participants remains limited.

Government, community, and private sector stakeholders commented that refugees have access to education services (schools and support from NGOs, such as distribution of scholastic materials), which helps to equip them with the skills and knowledge for successful livelihoods. In addition, a financial service provider explained that refugees, "...have more access to funds and materials or

cash grants and support from organizations ... to improve their livelihoods [than host community members].”

Skill gaps in good agricultural practices and animal rearing have a direct impact on the success of on-farm livelihoods. All stakeholders commented that technical skill gaps exist in both on-farm and off-farm livelihoods. Specifically, regarding farming, government and community respondents noted that households still do not have adequate knowledge and skills in animal rearing. One DPO remarked that farmers could have a better understanding of, “...routine management practices for animals and cross breeding” and obtain more, “...knowledge in feeding of animals for faster growth.” Another aspect of animal husbandry that emerged related to zero grazing of cattle; an LC3 stakeholder noted that learning about this technique for cattle feeding is critical, “...due to land shortage.”

Other on-farm livelihood skills that could use reinforcement include good agricultural practices such as mulching, fertilizer application, soil conservation, and line planting, as well as post-harvest handling. Government and community stakeholders reported that households could have better training in the following off-farm economic opportunities: hairdressing, mechanics, motorcycle repair, and tailoring. Cross-cutting both on-farm and off-farm livelihood opportunities, stakeholders cited financial and marketing skills as valuable areas of knowledge; in addition, community and private sector respondents pointed to literacy as an obstacle to improved livelihoods.

Literacy

Government and community stakeholders pointed to education in terms of literacy acquisition as an influencing factor for employment and level of earnings. One district secretary of production (SPO) mentioned that illiterate households, “...interact rarely with other members in the community or engage in community work.” Another LC3 respondent linked illiteracy to ignorance, which, in this individual’s opinion, “...needs awareness creation to change the mindset of the people.” These perspectives on literacy perhaps signal a greater bias and stigma among the community toward illiterate individuals, which could hinder their chances to find employment.

These qualitative findings align with the quantitative results of the household survey. Exhibit demonstrates that the average literacy rate in local languages among participants is 63%, and in English is 24%, but these values vary significantly among demographic groups. Hosts are much more likely than refugees to be literate in both local languages and in English, youth are more likely than adults to be literate in both local languages and in English, and males are more likely than females to be literate in both local languages and in English, with all these differences significant at the 1% level.

Exhibit 24. Literacy Rate by Demographic Groups

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
Literacy in local languages	63%	54%	71%***	57%	72%***	77%	53%***
N	1643	746	897	990	653	702	941
Literacy in English	24%	11%	34%***	14%	38%***	34%	16%***
N	1638	746	892	989	649	698	940

Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing (*p < 0.10; **p < 0.05; ***p < 0.01).

Showing household members (individual-level).

Although rates of literacy vary among demographic groups, literacy is broadly associated with significantly higher earnings, as we show in Exhibit . Irrespective of literacy status in local languages, youth make less than adults. However, women who are literate in local languages make 168,497

UGX less than men who are literate in local languages, suggesting that literacy itself is not sufficient to completely close the gender earnings gap. This is further confirmed by the disparate increase in earnings that literacy in local languages causes for men (almost 250,000 UGX) versus women (only 92,000 UGX).

Exhibit 25. Average Earnings (UGX) in the Past 12 months by Literacy in Local Languages, by Demographic Groups

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
Average earnings if literate in local languages	1,116,709	1,097,841	1,129,335	1,382,193	743,171***	1,199,920	1,031,423*
N	893	358	535	522	371	452	441
Average earnings if not literate in local languages	942,743	960,568	916,545	1,066,651	655,432***	953,679	938,940
N	531	316	215	371	160	137	394
Difference in earnings by literacy in local languages	173,966**	137,273	212,790**	315,542***	87,739	246,241*	92,483

Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing. Significance is also shown on the differences, tested vertically between those who are vs. those who are not literate in local languages (*p < 0.10; **p < 0.05; ***p < 0.01).

Showing household members (individual-level), if engaged in economic activities; earnings data was trimmed at 99th percentile for outliers.

In Annex II Exhibit A2 and Exhibit A3, we explore how literacy in local languages relates to the livelihood activity that different demographic groups have pursued. In doing so, five key findings emerge. First, on-farm activities like on-farm crop and livestock are significantly more prevalent among illiterate respondents compared with literate populations. Second, engagement in salaried employment is higher among literate individuals (1% for illiterate vs. 4% for literate; difference is statistically significant at the 1% level). Third, literate youth engage in on-farm livestock much less than illiterate youth (35% for literate vs. 56% for illiterate youth; difference is statistically significant at the 1% level). In contrast to on-farm livelihoods, engagement in on-farm livestock shows a smaller gap by literacy status in local languages for adults (62% for literate vs. 68% for illiterate; significant only at the 10% level). This suggests that literacy in local languages is a stronger driver of off-farm livelihoods for younger participants.

Fourth, literate women are less likely to engage in on-farm livestock (56% for literate vs. 70% for illiterate; difference is statistically significant at the 1% level). In contrast, engagement in on-farm livestock does not vary significantly by literacy for men (48% for literate vs. 47% for illiterate). Fifth, literate women are more likely to engage in off-farm enterprises than illiterate women (25% for literate vs. 15% for illiterate), than men (21% for literate vs. 18% for illiterate).

Sometimes we get opportunities in the host community to train people in tailoring but because of language barrier we missed the chance of making some money.

FGD with Adult Refugee Women

Nutrition

Earnings data show that primary participants from food-secure households (as measured by the Food Consumption Score [FCS])¹⁵ reported significantly higher average net earnings in the past 12 months than primary participants from food-insecure households (1,175,657 UGX vs. 794,369 UGX; difference is statistically significant at the 1% level). Graduating to Resilience may have contributed to the degree of food security through activities such as consumption support, coaching and asset transfers. All stakeholder groups reported that trainings on nutrition topics have led to improvements in household consumption patterns, especially, as CBTs in one focus group stated, “Participants prepare food well and have good eating habits.” In addition, the qualitative data confirm the linkage between higher earnings and food security, as participants across FGDs shared that their increased income from livelihood activities has improved their food security outcomes.

When comparing household food security status with reported livelihood activities, it appears that households with off-farm economic activities, which includes formal and informal businesses as well as micro-enterprises, are most likely to be food secure (78%). Households engaged in on-farm livestock (75%), off-farm crop (74%), and on-farm crop (73%) are also more inclined to be food secure.

Although participants’ livelihood choices drive food security to some extent, refugee households are consistently less likely than host households to be food secure regardless of the type of livelihoods in which their household is engaged. Across livelihoods, there is a roughly 20% difference in food security between refugee and host community households. This perhaps reflects underlying barriers to food security that may affect refugee households more seriously, such as limited access to capital and land.

In addition, livelihood diversification is associated with food security status. The average number of livelihood activities among food secure primary participants is 2.46, which is significantly higher than food insecure households, at 2.29 (difference is statistically significant at the 5% level).

3.7 Financial Capital

Cash Shortages

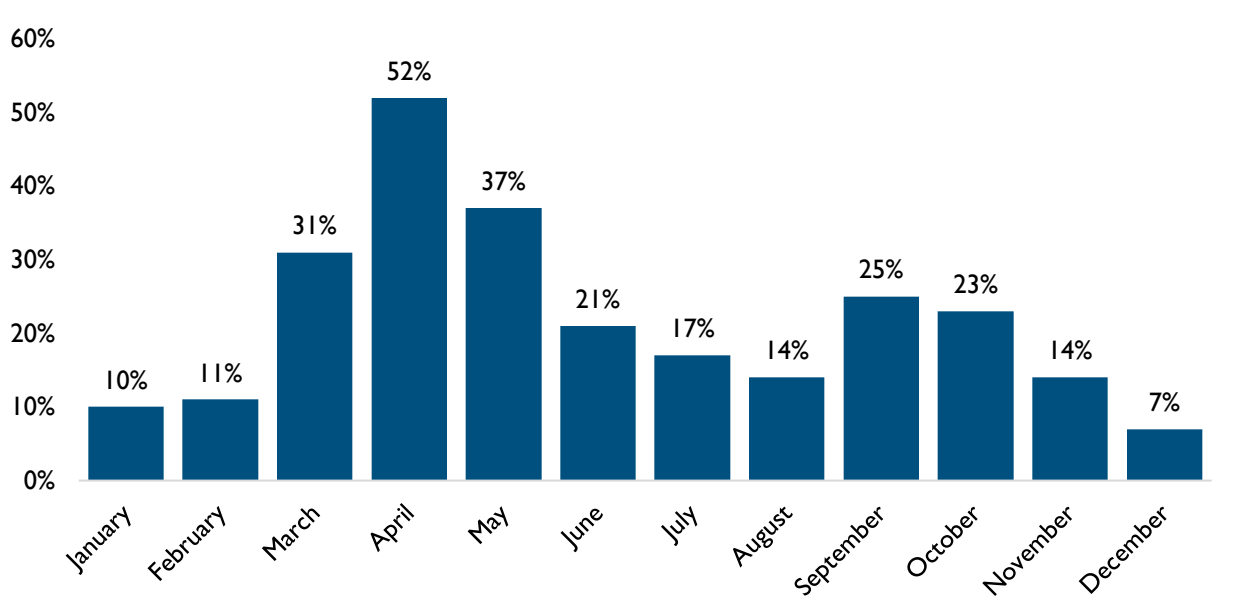
¹⁵ As specified by the World Food Organization (WFO), the FCS aggregates the frequency of household-level consumption of nine food groups seven days before the survey, which is thereafter weighted according to the relative nutritional value of each food group and summed to generate the FCS. The WFO defines FCS scores above 35 as acceptable.

Exhibit shows that in certain months or seasons participants face cash shortages. March to May represents the period with the highest likelihood of participants facing cash shortages, followed by September to October. These are the seasons that correspond to the lean period for agricultural activities. Moreover, March to May is also the time when school fees are typically paid, so demand for cash is the highest. COVID-19 lockdowns may also have been a factor during 2020, as regulations were particularly severe in April when cash shortages are the highest.

Exhibit further confirms this trend, as we find that household members reported COVID-19 regulations as the most common reason for cash shortages in the past 12 months.

These patterns give us insight into when cash transfers in cohort two may be timed to help smooth consumption for cohort two participants.

Exhibit 26. Months when Household Members Faced Cash Shortages

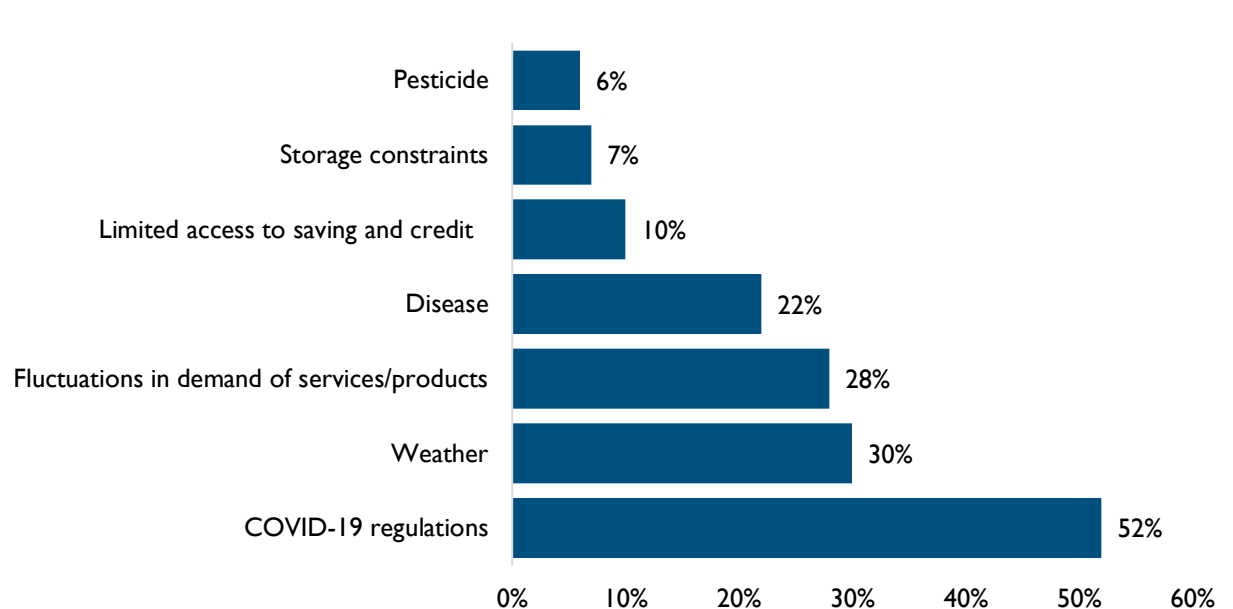


N = 1503; showing all household members (individual-level), if engaged in economic activities.

Qualitative data confirm the seasonality of income, although participants reported slightly different months than what the graph in Exhibit 27 indicates, as they described higher income in May and June and November through December, and decreased earnings February through April. The variation reflects perhaps the differing experiences of households and prices obtained for agricultural products, which respondents noted fluctuates quite often and affects the capital of the farmers who engage in the produce business.

Even though the specific months may differ across quantitative survey results and qualitative focus group responses, the reasons behind seasonality of income converge. For example, adult women in the host community stated that people have more money to spend after selling their produce in the harvest season, but during production, purchasing power lowers and they, "...cannot make much profit."

Exhibit 27. Household Member Reasons for Cash Shortage in Past 12 Months



N = 1332; showing all household members (individual-level), if experienced any cash shortages in past 12 months.

Confirming that the pandemic had a significant effect on household earnings this year, a youth male in the host community stated that because of COVID-19, “...all businesses have been put to a standstill, unlike the periods before the pandemic.” Please reference **LMA Objective 4** for more information on the impact of COVID-19 on household livelihoods.

Access to Credit

Access to credit and startup capital is still an obstacle for households: 55% of households identify “lack of startup capital” as a challenge to starting or expanding economic activities. As two thirds of households received funds from the Activity’s asset transfer component for the purpose of starting or expanding a business, this finding might represent a general sentiment on capital as a barrier. An alternative explanation might be that the funds may have partially been spent on other, more immediate household needs, leaving less capital available for business investment. According to an NGO partner staff interviewee, lack of access to formal credit and sufficient startup capital means that, “...stakeholders realize relatively lower profit margins, which affects the rate of business growth.” Although some government and community stakeholders felt that refugees could have better access to credit because of support services, a financial service provider noted that refugees have less access because they do not own property, and some do not have identification cards.

Majority of the households lack income for starting up businesses or expanding their production.

KII with SPO

Exhibit shows households' access to formal and informal sources of credit. Almost everyone has access to (formal) group based micro-finance or lending through VSLAs. This is consistent with Activity success in providing a more formalized source of credit through VSLAs. In contrast, informal sources of credit are rather limited and consist of friends or relatives (46%), informal credit/savings groups (23%), and informal lenders (10%). In

Exhibit , we disaggregate findings by participant nationality. We find that when it comes to formal VSLAs or credit from friends or relatives there is significant difference between hosts and refugees. However, hosts have relatively greater access to informal saving groups and formal lenders than refugees, whereas refugees tend to depend more on informal lenders than host community participants. When we asked about difficulties faced in accessing credit, we found that the most consistent challenges across formal and informal credit sources were lack of collateral, failure to obtain a loan guarantee, and high interest rates.

As shown in Section 2, 94% of respondents reported being able to access to VSLA groups, and about 90% of those respondents reported that it is “very easy” or “somewhat easy” to access VSLAs if they were interested borrowing money. However, among the few who did have problems accessing VSLAs, lack of collateral (33%), failure to obtain loan guarantee (36%),¹⁶ and high interest rates (51%) are the most common difficulties.

The low access to credit from non-Activity informal sources may reflect high poverty rates among participants' social networks¹⁷, but also exorbitant interest rates, and lack of trust due to theft and abuse associated with money lenders, who have in the past even sold credit under the guise of (unregulated) micro-finance institutions in Uganda.¹⁸

One of the goals of the Activity was to link participants to formal lenders. Although VSLAs set up through the Activity play the role of a formal lending source, only 4% reported access to a formal lender (bank/financial institution). Male youth in the refugee community suggested that they need more linkages to banks and other financial service providers closer to their communities. Furthermore, these youths commented that because their businesses may not be formal, they face a harder time using these businesses as collateral for loans. A financial service provider suggested that refugees lack the credentials, such as identity cards and property, and that they, “...prefer to work with clients who are more settled.”

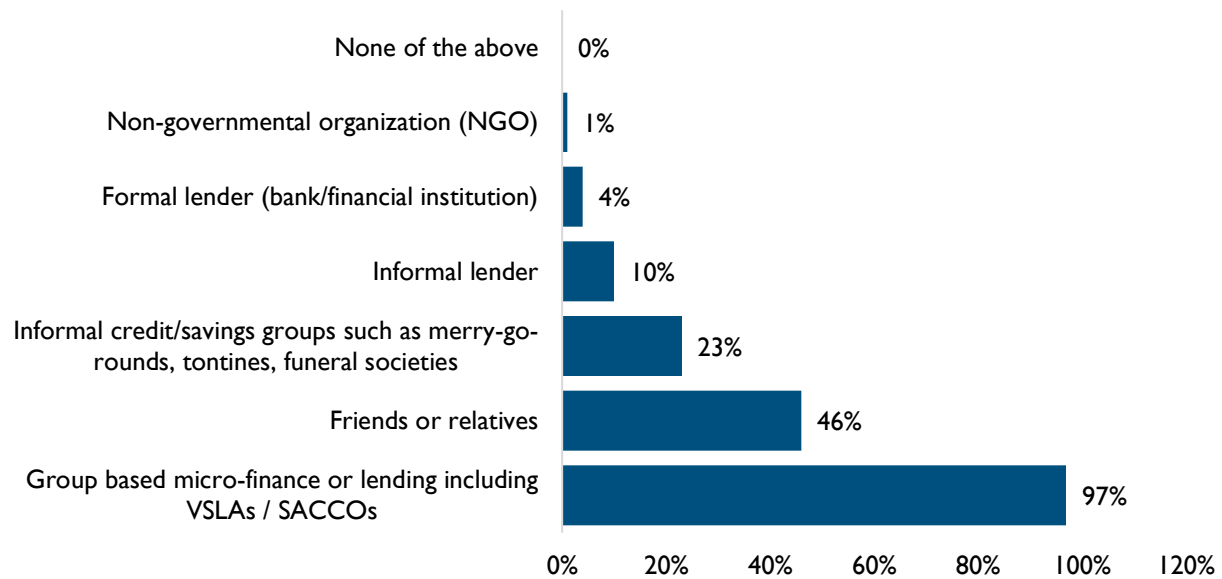
It is unclear how sustainable the VSLAs will be on their own after the Activity leaves or what size loans these VSLAs can offer at scale in the future. Strategies to help refugees and hosts secure collateral and easy access to more diverse and reliable sources of sustainable, formal credit beyond current VSLAs should also be explored.

¹⁶ It should be noted that loan guarantees are not a component of the Activity's VSLAs. Loans are administered in group meetings, and the general assembly is a guarantor by virtue. However, based on the reported difficulties with failure to obtain a loan guarantee for VSLAs, the Activity may consider reinforcing this message for cohort two VSLAs to ensure they are operating in accordance to their constitutions and no participant is required to provide a loan guarantee to access VSLA loans.

¹⁷ According to our Household Survey data, across both hosts and refugees, only 5–6% lent to others in the past month.

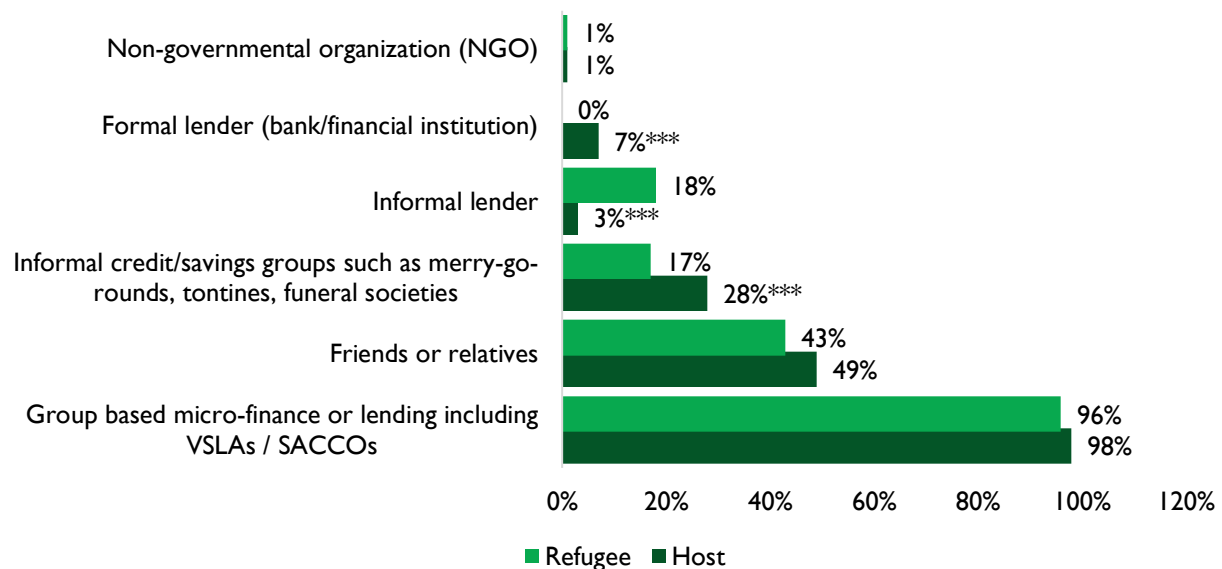
¹⁸ Duggan, C. S. (2016). Doing bad by doing good? theft and abuse by lenders in the microfinance markets of Uganda. *Studies in Comparative International Development*, 51(2), 189–208.

Exhibit 28. Households' Accessible Sources of Credit



N = 763; showing primary participants (household level)

Exhibit 29. Households' Accessible Sources of Credit, by Community Type



Note: Statistical significance is shown for t-test differences between refugee vs. host. Significance markers are always shown on host values ($p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).*

N = 370 refugee, 386 host; showing primary participants (household level)

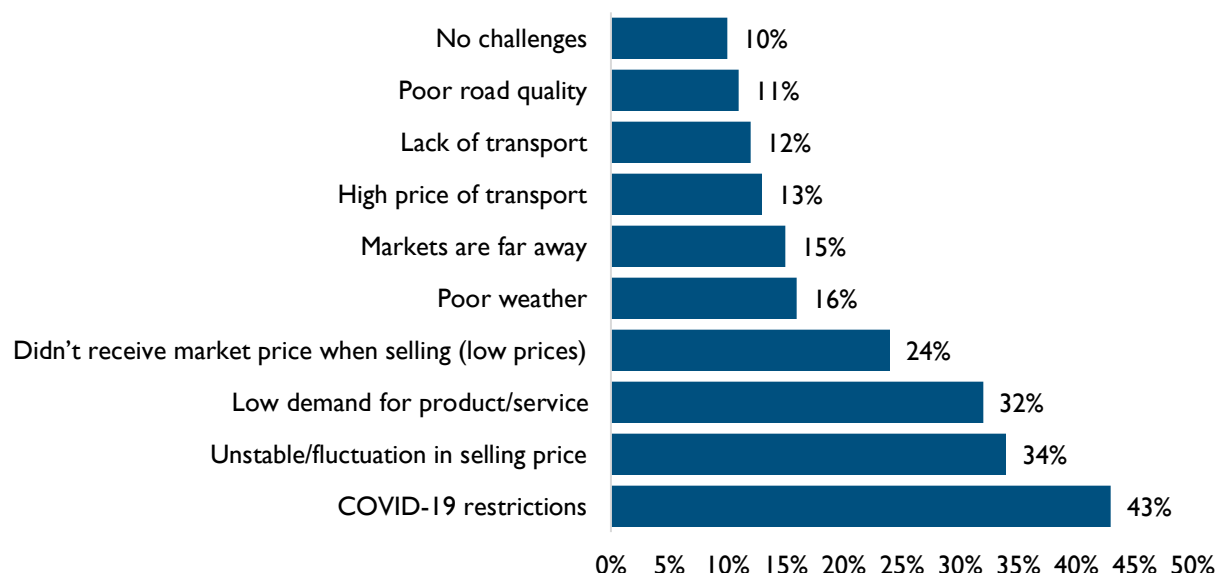
3.8 Selling to the Market

In Exhibit , we show the most salient livelihood challenges participants faced, especially with selling commodities or services to the market. Only of respondents 10% report no challenges. COVID-19 restrictions seem to be the most prominent challenge faced by 43% of household member respondents. Other than COVID-19 restrictions, volatility in selling prices and low demand for

products/services seem to be the most significant challenges faced by a third of all household members. About a quarter believe that they do not receive market prices when selling. Poor weather, cost and access to transport, road quality, and distance to markets are other impediments that increase transaction costs for household members.

Looking into the livelihood challenges faced by hosts and refugees, we observe a few significant differences. Refugee participants are significantly less likely than host participants to report “unstable/fluctuation in selling price” as a challenge (R: 18% vs. H: 47%), as well as less likely to report “poor road quality” as an issue (R: 9% vs. H: 13%). However, refugees are more likely than hosts to report “low demand for product/service” (R: 35% vs. H: 30%) and more likely to report “no challenges” (R: 12% vs. H: 7%).

Exhibit 30. Household Member Livelihood Challenges Faced



N = 1503; showing all household members (individual-level), if engaged in economic activities.

We found that the most salient non–COVID-19 challenges in selling crops are unstable price (37%) and receiving market prices (26%). In contrast, when selling livestock, the most common challenges are distance to markets (30%) and perception that they do not receive market prices for the livestock (35%).

Qualitative data showed that youth women must negotiate the prices of products with middlemen and often face a disadvantage when they have a high quantity to sell and are pressured to sell below market rate. Low prices were also a major complaint within the refugee community; adult refugee women pointed out that a significant challenge to household earnings remains, “...very low prices offered for our agricultural products [of maize and beans].”

From the perspective of the private sector, one output buyer interviewed explained that the volatility of maize prices means that prices can increase or decrease based on grain supply, “...regardless of

The market for the produce from those three enterprises (maize, beans, and groundnuts) gives very low prices and one ends up earning very little as compared to what they invest.

FGD with farmers in farmers group

the seasons.” Input dealers noted that they set prices depending on how much supply they purchased from the supplier, but they do offer discounts to “daily customers” and customers who purchase in bulk.

Our findings above have support in academic research from Uganda but also rural markets in Africa more broadly.^{19,20} Lack of market integration is a major issue and leads to highly variable prices over time, leading farmers to sell low (harvest season) and buy high (lean season). “Improving intermediation allows for the possibility of large returns in the gains from trade...”²¹ and could have major implications for farmer welfare and food security. The conceptual and empirical evidence suggests that interventions aimed at facilitating smallholder organization, at reducing the costs of intermarket commerce, and, perhaps especially, at improving poorer households’ access to improved technologies and productive assets may be most beneficial.²²

Many private sector agents in our context now see refugees and the extremely poor in general as viable market partners. Early engagement with private sector agents and farmer cooperatives could address some of the challenges mentioned earlier.

3.9 Production/Rearing

Like transaction costs in selling, numerous transaction costs that impede the productivity and production side of various enterprises as well. Cost and quality of inputs are key issues for about one third of participants surveyed. For those engaged in off-farm enterprises, we find that accessing inputs (35%) and cost of inputs (32%) are the biggest challenges. Among those engaged in acquiring agricultural inputs for on-farm economic activities, cost of inputs (28%) was the biggest challenge, whereas those engaged in acquiring agricultural assets for on-farm livelihoods reported costs (27%) but also quality (10%) of assets as challenges. Similarly, among those engaged in acquiring inputs for on-farm livestock rearing, cost of inputs (35%) was the biggest challenge, whereas among those engaged in acquiring assets for rearing livestock reported costs (21%) but also quality (7%) of assets as challenges.



Through sensitization and trainings, they [farmers] can have the ability to select and grow other crops which are profitable

KII with CDO

To achieve entry to more profitable value chains, government and community stakeholders mentioned that households need more knowledge and skills in modern agricultural practices. An LC3 respondent noted that beyond skills in soil fertility management, post-harvest handling, and storage, households could benefit from financial literacy such as budgeting, and the combination of farming and marketing skills would, “...be able to bring a lot of success.” Members in one farmers group explained that farmers may be reluctant to engage in more profitable value chains because, “...participants do not have enough land to try out these enterprises” and that they “lack knowledge of how to grow those crops.”

¹⁹ <https://www.povertyactionlab.org/evaluation/market-linkages-smallholder-farmers-uganda>

²⁰ <https://basis.ucdavis.edu/sites/g/files/dgvnsk466/files/2017-03/McIntosh-Craig-New-Project-Presentation.pdf>

²¹ Antras, Pol and Arnaud Costinot, “Intermediated trade,” *The Quarterly Journal of Economics*, 2011, 126 (3), 1319–1374.

²² Barrett, Christopher B. (2008). “Smallholder market participation: concepts and evidence from eastern and southern Africa,” *Food Policy*, 33(4), 299–317.

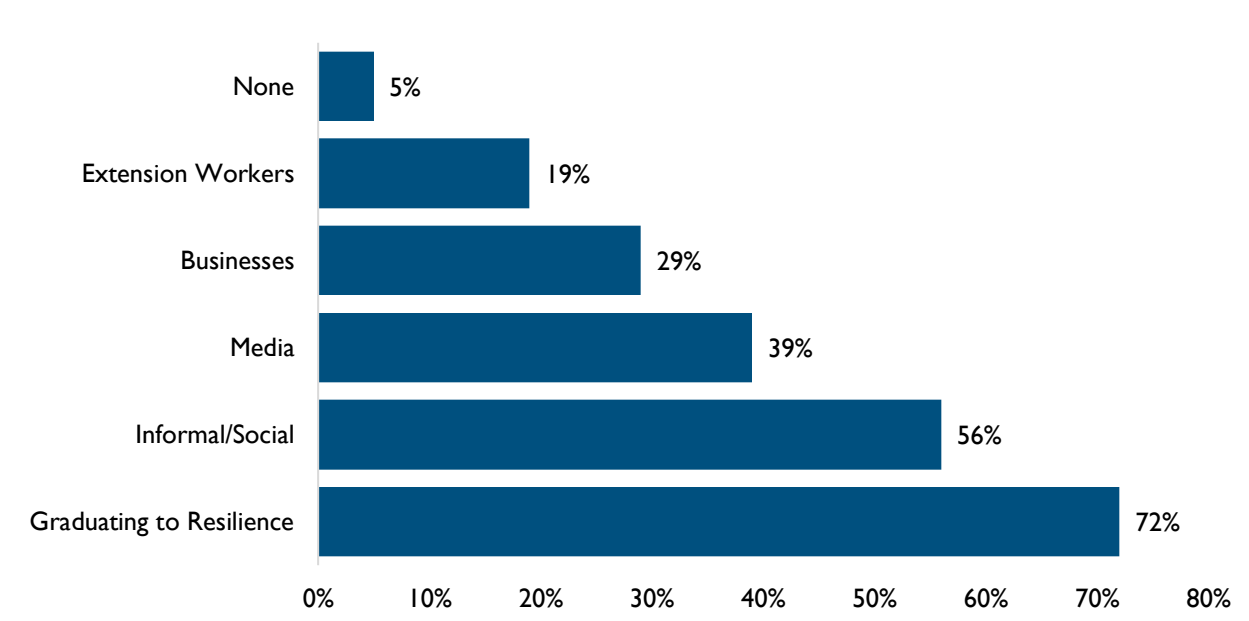
An LC3 respondent agreed that land poses a significant constraint and mentioned that, “...some poor households have little land for diversification.” A partner staff member shared that this land shortage may be especially acute for refugee community members, but overall, “...access to sufficient land to invest for farming continues to be a key challenge.” Male refugee youth confirmed that if they had land, it would give them “confidence” in their businesses, but they acknowledge that, “...[land] is also limited and we can’t acquire more.”

3.10 Access to Information

A large body of economics literature emphasizes that information is critical for the efficient functioning of markets.^{23,24,25} In

Exhibit, we report the different sources of agricultural information reported by households. The Activity is the most common source of information for 72% of households. Other sources of agricultural information include informal/social networks (56%), media (39%), other businesses (29%), and extension workers (19%). The type of information most frequently obtained from all sources is information on price of crops (67%), agricultural methods (55%), improved inputs (51%), markets for selling the crop (45%), weather (39%), and selling the crop in groups (22%). Furthermore, we find that having any access to information is associated with having more livelihood diversification than having no access to information (~2.3 livelihoods vs. 2.07 livelihoods).

Exhibit 31. Households' sources for agricultural information



N = 685; showing all primary participants (household level), if at least 1 household member is involved in on-farm cropping.

²³ Stigler, George. (1961). The economics of information. *Journal of Political Economy*, 69(3): 213–225.

²⁴ Salop, Steven, and Joseph Stiglitz. (1977). “Bargains and ripoffs: a model of monopolistically competitive price dispersion. *Review of Economic Studies*, 44(3): 493–510.

²⁵ Svensson, Jakob and David Yanagizawa. (2009). Getting prices right: the impact of the market information service in Uganda. *Journal of the European Economic Association*.

In Exhibit , we report that the type of information most desired is information on agricultural methods (57%), improved inputs (54%), crop prices (50%), linkages to improved markets for selling crops (49%), and selling the crop in groups (24%). Refugees are significantly more likely than hosts to request more info on selling crops in groups (30% vs. 19%). In contrast, the most desired livestock information relates to information on caring for animals (about 50%), preventing diseases (about 50%), improved drugs/feed (about 50%), and accessing veterinary care (about 30%).

Exhibit 32. Household Agricultural Information Desired



N = 685; showing all primary participants (household-level), if at least 1 household member is involved in on-farm cropping.

Input dealers noted that information on product prices and the quality of products would be most helpful to improve households' ability to acquire necessary inputs. They also suggested that the Activity share its contact information with households, "...in case they needed any service they reach us directly." Specifically, one input dealer commented that farmers have information on the agronomy of maize and beans more readily because of the popularity of these crops for cultivation, but have less information on vegetables such as cabbages, eggplants, and carrots, "...especially growing them on a large scale."

Households could also benefit from more market information on prices and services. Community stakeholders (e.g., farmers' groups and local council leaders) suggested that some middlemen and traders can charge very high interest and, according to one LC3 respondent, "...manipulate the people mostly through buying their produce on credit, and giving very low prices for their produce." However, one input dealer stated that he had confidence in his relationship with households to supply products on credit and that farmers pay them back after the harvest but admitted that this assurance of repayment may be because, "...we have worked with them for long, we know their homes."

Information Communication Technology

Information communication technology (ICT) solutions have a big potential to make a difference on economic activities in cohort two by addressing market failures arising from unequal access to information. Participants expressed a strong interest in the use of ICT for getting information on

crop prices (50%), farm inputs (50%), weather (40%), agricultural and business information (36%), new farming techniques (33%), and weather-friendly/fast-yielding crops/livestock breeds (21%).

Academic research from Uganda has shown the success of the Market Information Service project in Uganda.²⁶ This project collected data on prices for the main agricultural commodities in major market centers and disseminated the information through local FM radio stations in various districts. Researchers found that better-informed farmers managed to bargain for higher farm-gate prices on their surplus production. In our context, 58% have a radio and 86% of those who have radios tend to listen to radios daily.

Data from our household survey reveal that mobile phones are even more popular in this context: 67% of women and 77% of men own a cell phone, and 79% of women and 86% of men who own a cell phone use their phone daily. Current economics research with cell phone-based solutions to address information constraints for smallholder farmers in rural settings indicates that although providing information can work in some contexts, it is also necessary to fundamentally shift the intermediaries and middlemen who tend to exploit the knowledge information deficits of farmers to extort high rents and profits.^{27,28}

A recent large-scale experiment introduced a mobile phone-based marketplace using a new software platform from Makerere University called Kudu for agricultural commodities and then worked with AgriNet, a private sector agribusiness firm in Uganda, to promote the mobile marketplace.²⁹ The intervention increased trade and reduced price divergence across treated markets. However, researchers identified a challenge related to uptake of the system, and our data confirm that usage of mobile money applications may be limited, as only one third of these users can grasp the technology without support from agents or others. Thus, ICT literacy and training around technology for financial services and access to applications like Kudu or Mobipay may be critical for the ICT solution to work.

When we spoke with ICT providers, one of these stakeholders commented that farmers offer a broad market base for ICT solutions and explained that a community survey to understand the types of services desired indicates that farmers want to use ICT to improve networking in the value chains that they undertake. Further, this ICT provider stated that farmers can use ICT to better link with input dealers, off-takers, financial institutions, and other key players in the value chain. However, the biggest challenge, according to ICT stakeholders interviewed, rests in mobile phone access and knowledge of smart phone usage.

LMA Objective 3: Investigate potential new opportunities for livelihood development

In this section, we evaluate opportunities for improving livelihoods for extremely poor households and examine diversified household income streams. We discuss the following key themes: cash transfers, optimal livelihood diversification strategy, and profitability associated with six value chains being considered for cohort two programming.

²⁶ Svensson, Jakob and David Yanagizawa. (2009). Getting prices right: the impact of the market information service in Uganda. *Journal of the European Economic Association*.

²⁷ Goyal, Aparajita. (2010). Information, direct access to farmers, and rural market performance in central India. *American Economic Journal: Applied Economics*, 2(3), 22–45.

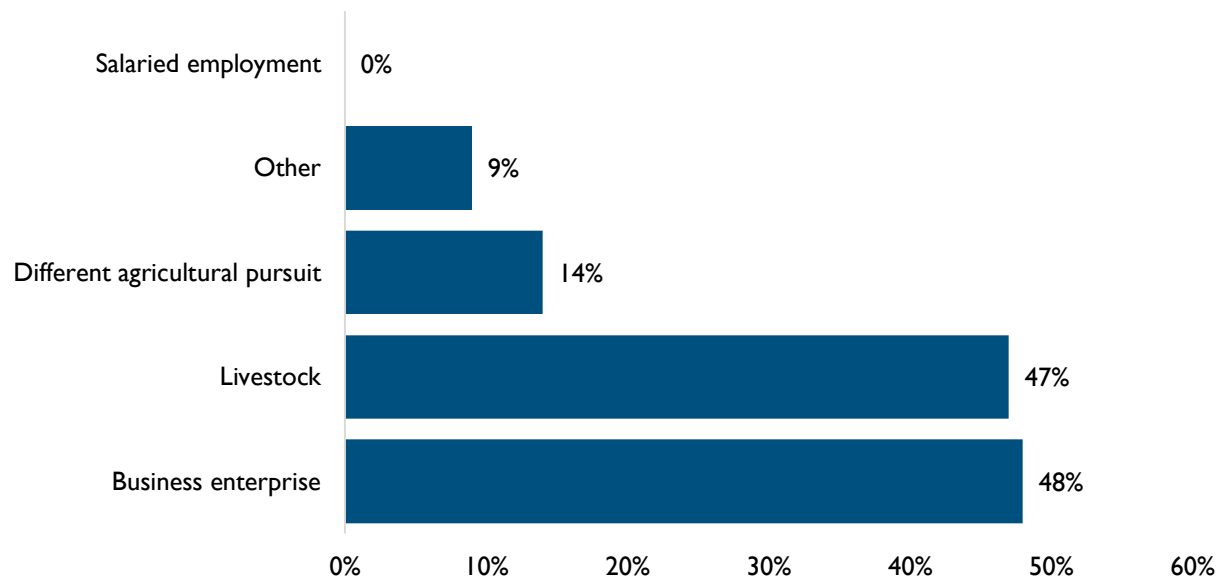
²⁸ https://novafrica.org/wp-content/uploads/2021/04/2021.04.21_Craig-McIntosh.pdf

²⁹ https://novafrica.org/wp-content/uploads/2021/04/2021.04.21_Craig-McIntosh.pdf

3.11 Cash Transfers

Exhibit shows survey responses to a hypothetical question that asked respondents about what they would do if they received 1 million UGX (This would be an additional 1 million UGX for participants in treatment arms 1 and 2 and the first asset transfer of this amount from treatment arm 3). We find that household members are most interested in starting or expanding their businesses³⁰ (mostly off-farm) or livestock (mostly on-farm) enterprises. When we disaggregated results, we found that refugees are more interested than hosts in livestock and business enterprises; adults are more interested than youth in livestock, but youth are more interested than adults in business enterprises; and women are more interested than men in business enterprises.

Exhibit 33. Enterprises that Household Members Are Interested in Starting or Expanding



N= 1 503; showing all household members (individual-level), if involved in economic activities.

When respondents were asked to specify the type of livestock they would like to invest in, the most popular answers were goats (42%), cattle (28%), and pigs (21%) (N = 706 livestock responses). When asked to specify the type of business enterprise they would like to invest in (N = 722 business responses), responses varied, and included opening a grocery, a salon, or a boda-boda taxi service; selling clothing; trading produce; or starting a chapatti stand. Some responses for desired business enterprise investments included on-farm livelihoods such as buying land to start or expand crop production. About 4% of the 722 respondents interested in investing a business enterprise said they would expand their current business.

³⁰ The definition of a “business enterprise” in this context is specific to Exhibit 34, and was intentionally left to the interpretation of the respondent to allow for a wider variety of responses in the follow-up question which asked them to specify the business. As such, “business enterprises” covered a range of income-generating activities, though most respondents reported off-farm enterprises.

3.12 Optimal Livelihood Diversification

In this subsection we study the patterns of livelihood diversification in greater detail to identify gaps and to identify pairings of livelihoods that are associated with highest earnings. This, in turn, will give us insights into which livelihood pairings have had the highest returns.

Exhibit presents the likelihood that a given participant is engaged in each of the possible pairings of broad livelihoods. For example, those engaged in on-farm crop have a 61% likelihood of also engaging in on-farm livestock. Across all livelihoods, engagement in on-farm crop and on-farm livestock are the most common livelihoods pair (92%), whereas on-farm crop and salaried employment is the least common (~2%). Those involved in off-farm crop are likely to also participate in on-farm crop (88%); similarly, those involved in off-farm livestock are also the most likely to work in on-farm livestock rearing (69%). These dynamics imply that on-farm and off-farm livelihoods are complementary and align with qualitative data suggesting that livelihood diversification may improve resilience and decrease risk. Those involved in off-farm enterprises tend to supplement that work with on-farm activities (76% also engage in on-farm cropping and 51% also engage in on-farm livestock).

Exhibit 34. Household Diversification Pairings

If the individual is engaged in the column activity, what is the likelihood they are also engaged in the activity in each row?							
	On-farm cropping	Salaried employment	Casual labor	Off-farm enterprise	Off-farm crop	On-farm livestock	Off-farm livestock
On-farm cropping	100%	58%	82%	76%	88%	92%	85%
Salaried employment	2%	100%	2%	2%	1%	2%	2%
Casual labor	21%	18%	100%	17%	26%	20%	18%
Off-farm enterprise	18%	18%	15%	100%	20%	18%	25%
Off-farm crop	19%	11%	21%	19%	100%	22%	29%
On-farm livestock	61%	50%	52%	51%	67%	100%	69%
Off-farm livestock	8%	5%	7%	10%	13%	10%	100%
N	1,276	38	333	301	274	840	124

Showing household members (individual-level), if involved in economic activities, and engaged in at least one livelihood.

Exhibit shows livelihood pairings that yield the top 10 average earnings during the past 12 months. The reason sample sizes are generally smaller among the top 10 most profitable pairings is that these involve pairing with off-farm work/salaried employment, in which few individuals work. In general, diversification between on-farm and off-farm activities is associated with higher earnings on average, as compared to specializing in one livelihood.

On-farm crop enterprises are most profitable when paired with salaried employment, but also pair well with any of the off-farm activities (off-farm enterprises, off-farm crop trading, off-farm livestock trading) except for casual labor (which yields the lowest earnings in our data). Given the low earnings in casual labor, those engaged in casual labor could likely benefit the most by shifts to sectors

mentioned in our top 10 list in Exhibit . On-farm livestock follows a similar trend, maximized when paired with salaried employment, but also performs well when paired with the off-farm activities.

On-farm livestock rearing and off-farm livestock sales appear to be complementary and provide substantial additional earnings. The same can be said of the complementary nature of on-farm crop production and off-farm crop sales. However, diversification away from a single industry consistently provides strong earnings, demonstrated by the high earnings observed by many livelihood pairings with engagement in an off-farm enterprise.

Exhibit 35. Livelihood Pairings that Yield the Top 10 Average Earnings in the Past 12 Months

Livelihood Pairings	Annual Earnings in UGX (N = Sample Size)
Off-farm enterprise and off-farm livestock	1,976,402 (N = 25)
Salaried employment and on-farm livestock	1,858,000 (N = 17)
On-farm livestock and off-farm livestock	1,597,005 (N = 77)
Off-farm enterprise and off-farm crop	1,562,642 (N = 53)
On-farm cropping and salaried employment	1,546,300 (N = 20)
On-farm cropping and off-farm livestock	1,424,105 (N = 95)
Off-farm crop and off-farm livestock	1,417,636 (N = 33)
Off-farm enterprise and on-farm livestock	1,401,955 (N = 147)
On-farm cropping and off-farm enterprise	1,354,723 (N = 221)
On-farm cropping and off-farm crop	1,324,577 (N = 227)

Showing all household members (individual-level), if involved in economic activities; earnings data was trimmed at 99th percentile for outliers.

3.13 Profitability of Potential Value Chains for Cohort Two Programming

Exhibit shows average profit values for specific value chains identified through collaboration of IMPAQ and AVSI research as both profitable and desirable to participants. Overall, sales of potatoes are associated with the highest yearly profits for households. Households rearing medium-size livestock like pigs and goats report the next highest profits. Even adjusting for land size, we find that potatoes are the second most profitable value chain, whereas livestock (e.g., pigs and goats) are among the top 6 most profitable value chains.

Looking at demographic differences, refugees earn more than host community households on average from goat, pig, and chicken sales, but see similar profits for crops. This may imply differing access to markets and buyers for their products. Although total earnings for adults were consistently higher than for youth when looking at their earning at the individual household member level, youth primary participant households enjoy similar average profits in Ugandan Shillings on the value chains specified in Exhibit , with no statistically significant differences from adult vs. youth primary participant households. When it comes to gender, male-headed households earn significantly more than female-headed households in the sale of chickens and groundnuts (at the 10% level).

Exhibit 36. Household Average Profit from Value Chains of Interest over the Past 12 Months

Indicator	Overall	Refugee	Host	Adult	Youth	Male-headed	Female-headed
Average potato profits	445,226	550,000	393,930	466,966	378,143	513,692	328,962
N	143	47	96	108	35	90	53
Average goat profits	376,295	509,502	317,828**	369,564	413,526	407,867	320,505
N	287	90	195	228	57	169	109
Average pig profits	296,020	391,921	259,317***	296,883	293,117	303,303	286,871

N	336	93	243	259	77	203	129
Average chicken profits	129,148	185,489	79,604***	127,683	135,958	137,656	103,983*
N	463	218	243	350	111	277	173
Average groundnut profits	126,763	88,500	132,977	118,123	167,083	149,593	95,862*
N	136	19	117	112	24	80	55
Average cassava profits	112,261	96,071	127,228	105,106	139,857	122,585	77,879
N	102	49	53	81	21	66	33

Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male-headed vs. female-headed. Significance markers are always placed on the second group of each pairing (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

Showing primary participants (household-level), if at least 1 household member is engaged in on-farm cropping and/or on-farm livestock, trimmed at the 99th percentile to remove outliers. Shading indicates importance for conclusions.

Exhibit 37 examines annual profits divided by the amount of land used to cultivate each value chain of interest. Goats were ranked second on overall average profits, but pigs are reported as the most profitable value chain for the land used to rear them, suggesting that goats are less efficient livestock in terms of land usage. Potatoes remain the most profitable of the crops of interest, both on average profits and profits per acre.

Exhibit 37. Median Annual Household Profit per Acre Used from Value Chains of interest

Value Chain	Median Annual Profit per Acre Used	N
Pig	553,500 UGX/acre	134
Potato	456,000 UGX/acre	139
Goat	180,000 UGX/acre	227
Chicken	160,000 UGX/acre	165
Groundnut	137,500 UGX/acre	134
Cassava	60,000 UGX/acre	99

Showing primary participants (household-level) if at least 1 household member is engaged in on-farm cropping and/or on-farm livestock, trimmed at the 99th percentile to remove outliers. Acreage is trimmed at 200 acres to remove outliers.

From qualitative data, rearing goats, pigs, ducks, cattle, and chickens emerged as the most common livelihood that would be seen as profitable for households because of smaller land requirements and shorter periods of production. Adult women in the refugee community remarked that livestock offers valuable assets at home because they, "...can be sold off whenever there is need." Youth women in both the refugee and host communities commented on pigs as an especially profitable value chain because pigs can grow fast, appeal to local tastes, and, according to youth refugee women, "...it's easy to construct their houses and feed them with maize bran, which is available in the community." Youth women in the host community, adult refugee men, and input dealers also noted that with cattle, dairy cows can provide a reliable income stream. However, stakeholders also raised concerns about the obstacles with raising livestock, such as access to veterinary services and routine management practices such as record keeping and breeding.

Outside of animal husbandry, respondents disagreed on which crop value chains may be most profitable. Some of the crops mentioned repeatedly include rice, potatoes, onions, tomatoes, passion fruit, coffee, watermelon, and groundnuts. Adult males in the host community shared that the key entry point for new value chains lies in the production stage for most farmers, but those with "substantial capital" could tap into opportunities at the "off-taking level of the value chain" and this engagement in trade would bring in a significant profit margin.

Adult males in the host community also stated their desire to continue within the maize and beans value chains because of AVSI's support in these crops thus far. They reported that organizations like AVSI have helped them "tap into the [maize and beans] markets." Furthermore, these individuals pointed out that maize and beans have consistent demand, which increases their profitability.

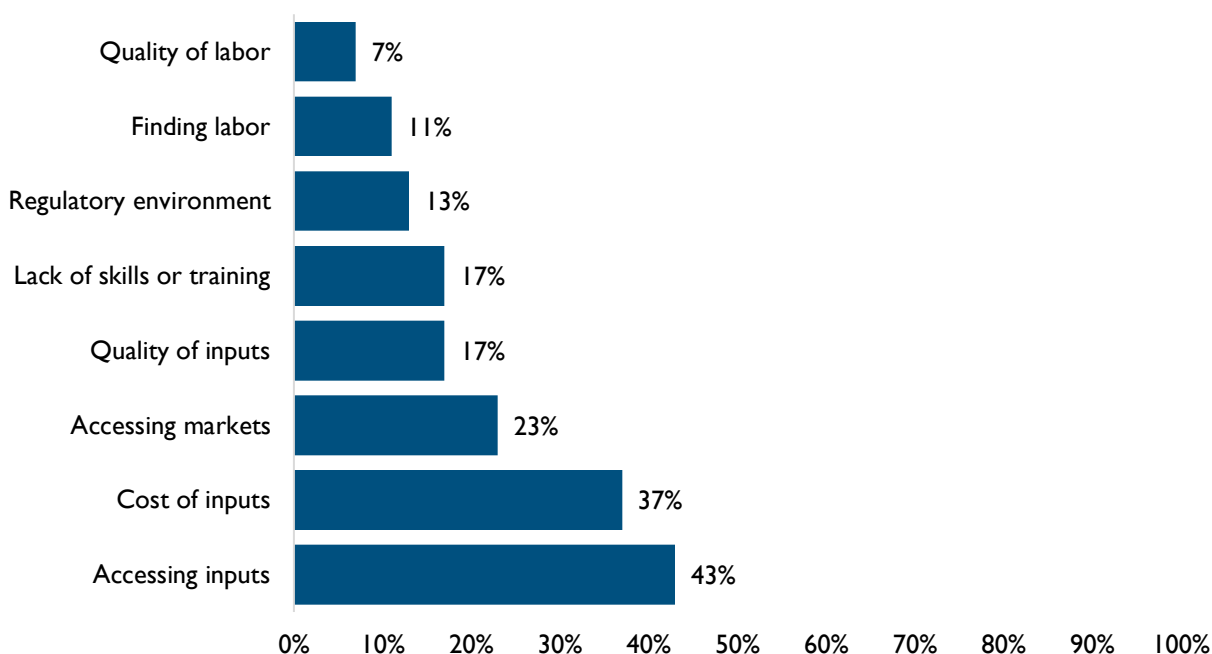
3.14 Off-Farm Livelihoods (Non-Agricultural)

Partner staff and government stakeholders suggested that participants could explore businesses in tailoring, art and dance, cosmetology, carpentry, and food and beverage (including catering). Male youth in the refugee community noted that "retail shops" dealing in basic needs are also profitable because people consume these goods on a daily basis. Stakeholders did feel that those wanting to take advantage of these off-farm business opportunities would require vocational training. Community and government stakeholders especially expressed that youth should have opportunities for "vocational skilling" and that education systems ought to support youth attaining, "...higher levels of education so that they can engage in salaried employment" (LC3 respondent).

Based on conversations with AVSI staff, cohort one demonstrated low interest in vocational training; in addition, according to a recent Save the Children Labor Market Assessment in Kamwenge, the cost may be prohibitive for implementers. However, perspectives from the LMA data collection would indicate that participants now desire this vocational training, and especially consider it valuable for youth. In a FGD with youth women in the refugee community, they stated that they would like vocational training in tailoring, bag making, hairdressing, baking, and soap making. However, an NGO partner staff member noted that vocational training without the relevant documentation (e.g., a diploma) may not be as meaningful in the job market; thus, this stakeholder suggested that youth need to undertake "various levels" of skills training to obtain, ultimately, a diploma.

Exhibit 38 shows the distribution of challenges to off-farm businesses captured in the household survey. Accessing inputs such as capital, land, and transport (43%), the cost of inputs (37%), and accessing markets (23%) were common barriers to the success of off-farm enterprises. These findings suggest that development of local markets for accessible, high-quality, affordable inputs would improve the profitability of this population's off-farm enterprises. Among households involved in off-farm businesses, 17% reported that lack of skills or training presents a barrier to their success, reaffirming the qualitative findings that additional vocational training could open doors for participants.

Exhibit 38. Off-Farm Enterprise Challenges



N = 404 overall; showing household-level data, if involved in off-farm enterprise/business.

LMA Objective 4: Understand the impact of exogenous, negative shocks, such as COVID-19 and weather, on labor market and livelihoods.

3.15 COVID-19

All stakeholders agreed that the COVID-19 pandemic and the resulting government restrictions that limited movement and temporarily banned all nonessential shops from opening affected households significantly. In particular, the closure of markets either reduced income from existing businesses or led to their total collapse. Government, community, and Activity staff all noted that, "...prices of agriculture products fluctuated..." because market closures impeded regular trading functions. However, not all households suffered the same in their businesses. As one CDO pointed out, "...Produce dealers who stocked beans and salt sold at high prices and made huge profits."

CBTs also mentioned that, "...Those dealing in farming enterprises had enough labor to work in their gardens given that all family members were all at home and thus more food was produced." Adult males in the host community explained that, "...households capitalized on the available labor to increase crop production to sustain them..." during the lockdown. Activity staff also pointed out that with movement restricted, households focused primarily on agriculture and other businesses that they could do from home. As CBTs summarized, people, "...resorted to only farming activities since they were always at home." However, quantitative data indicate that of the 48% of participants reported to have been economically affected by COVID-19 regulations, only 15% changed their livelihoods as a result of the pandemic.

Markets were closed and some of our businesses collapsed.

FGD with Adult Refugee Women

Despite certain households being less negatively affected, overall, most respondents lamented that the pandemic reduced household income, causing ripple effects that influenced savings and overall well-being. Coaches remarked that, "...savings stopped for some participants..." and, "...access to loans was not easy and this affected their well-being." The suspension of VSLA activities also had implications for social capital, as people could not connect to their usual support networks. Furthermore, refugee male youth indicated that failure to pay loans led to, "...chaos in the community..." although they did not provide specifics. The negative social effect of the pandemic not only related to the pause in VSLA functions, but also some government, refugee, and host community respondents pointed to increased cases of domestic violence, as partners had to stay together at home more often than usual. One CDO elaborated that, "...most of the breadwinners were not able to move to neighboring communities to make money and their spouses were not willing to understand the situation."

In

Exhibit 39, we show that 52% of participants said that COVID-19 regulations contributed to the cash shortages they experienced in the past 12 months, with significantly more refugees reporting shortages due to COVID-19 regulations. In fact, in Annex II Exhibit A5, we show that COVID-19 regulations were reported as the most common exogenous shock faced by (48%) household members to their livelihoods. Interestingly, in Annex II

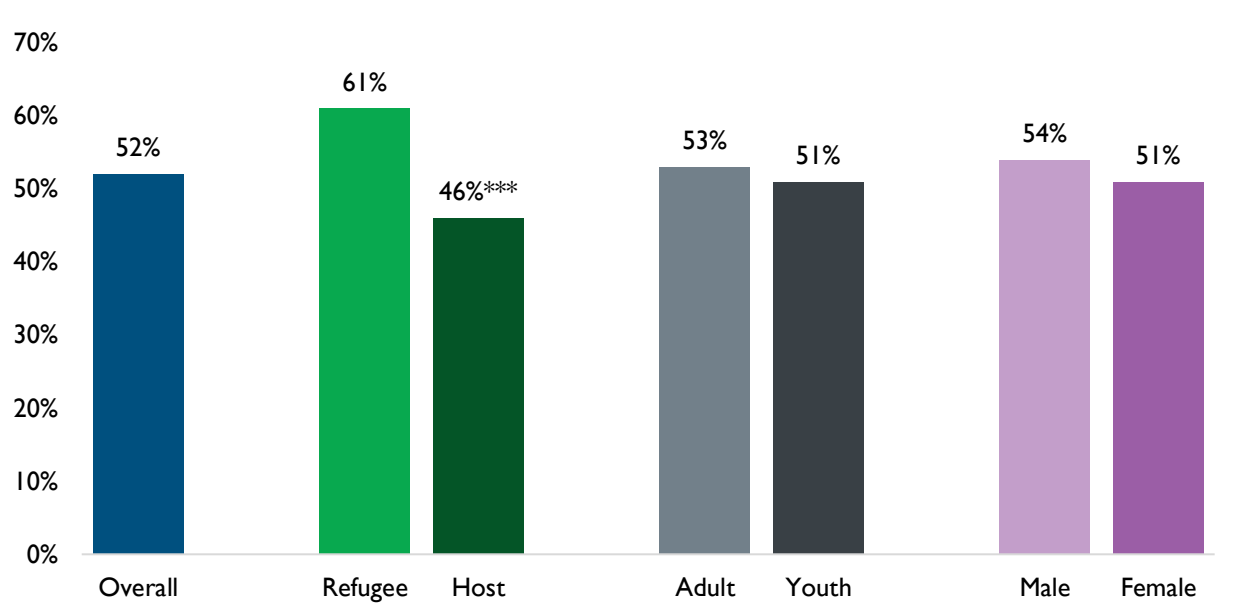
Exhibit A6, we find that significantly more adults (50%) than youth (43%) reported COVID-19 as a shock to their livelihood(s) (difference is statistically significant at the 5% level).

A more vivid picture emerges when we study the self-reported value of how much income was lost due to COVID-19 regulations in the past 12 months. COVID-19 regulations resulted in an average loss of 559,835 UGX – the second biggest cause of income loss after death in family (Annex II Exhibit A7). In .

Exhibit 40, we show that although refugee participants lost about 100,000 UGX more to COVID-19 regulations than host community participants, women affected by COVID-19 regulations lost less (510,087) than men (627,229) who faced the same economic shock to their livelihoods, though men's and women's losses represented about the same proportion of their starting income; women lost 14% of earnings to COVID, while men lost 15%. Even though adults were more likely to be affected by COVID-19 regulations than youth (A: 50% vs. Y:43%; difference is statistically significant at the 5% level; Annex II

Exhibit A6), the magnitude of the average income loss is similar for youths and adults.

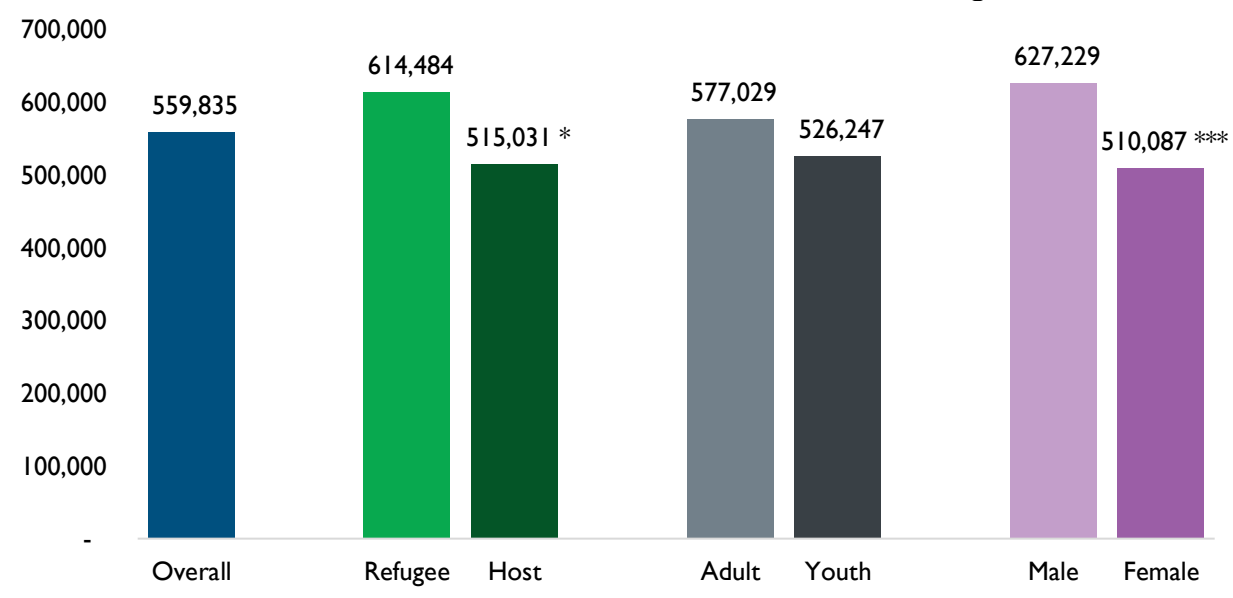
Exhibit 39. COVID-19 Regulations as a Reason for Cash Shortage in the Past 12 Months



Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

N = 1332; showing household members (individual-level), if engaged in economic activity, and experience cash shortage in the past 12 months.

Exhibit 40. Individual-Level Income Lost due to COVID-19 Regulations



Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

N = 697; showing all household members (individual-level), if engaged in economic activity, and reported facing COVID-19 regulations as a shock to their livelihoods.

With the reduction in income and purchasing power, all stakeholders mentioned that households prioritized food in their expenditures and also adapted by stocking food items and other essential

goods, either to sell, anticipating that they could fetch high prices, or as reserve for their own consumption.

Additionally, an LC3 stakeholder also mentioned that defilement cases (sexual assault of a minor) have grown in the community as well (see Gender Assessment for more details). Perhaps related to all these aspects, a few coaches interviewed remarked broadly that COVID-19 has, "...caused psychosocial unwellness." CBTs in one focus group pointed out that youth have engaged in early marriages because of COVID-19 so that they could, "...get the better way to earn a living."

At the same time, some stakeholders felt that COVID-19 had some positive impacts on the household and community dynamics. One LC3 respondent mentioned that, "...people have also learned to pray not only at church but also at their homes..." and, because people returned to their home villages, they connected more with their neighbors than if they had stayed in the town. A CBT stakeholder reported that COVID-19, "...brought about improved unity in the community, most especially amongst the different households because of the support they gave to each other in terms of food." Participants also noted that because of restrictions on bars and movement at night, some household members have reduced their consumption of alcohol; this sentiment emerged as well in the QCS. Community and Activity staff also noted that households changed their hygiene practices and followed health mandates to wear masks, practice social distancing, and avoid crowds. Coaches in one focus group remarked that participants now, "...take handwashing more seriously."

Despite most households being able to adapt their original livelihoods or undertake coping strategies to survive during the pandemic, members in one farmers group relayed that, "...some [households] gave up on business and their only hope remained the consumption support that they received from the Adventist Development and Relief Agency (ADRA) on a monthly basis."³¹ These respondents, as well as male refugee youth, shared that households also received some small loans from the VSLA for assistance.³²

3.16 Adverse Weather

According to almost all stakeholders interviewed, the main weather challenges the past few years have been droughts and flooding. This was confirmed in the household survey, in which "drought" was cited as the third most prominent economic shock faced (27%; Annex II Exhibit A5). Respondents also reported that droughts caused them to lose an average of nearly 480,000 UGX in the past year (Annex II Exhibit A7). CBTs in one focus group explained that in 2019, "...people did not get the expected yield as crops were burnt by sunshine." An LC3 interviewee noted

Presence of all household members at home increased family bonding and unity as they were able to engage in activities together.

FGD with Adult Host Men

Majorly it is the drought that has dried up our crops leading to yield losses and thus reduced incomes earned.

FGD with Adult Refugee Women

³¹ Refugees receive financial support from the World Food Programme through ADRA.

³² For more information on the effect of COVID-19 on household livelihoods, see the COVID-19 context assessment that AVSI conducted in 2020.

that planting has also been delayed because of prolonged dry spells.

Meanwhile, excessive rain and hailstorms have also been a recurrent issue and detrimental according to stakeholders in FGDs and KIIIs. An LC5 respondent explained that beans cannot yield well with excess moisture, and thus farmers growing this crop experienced poor harvests due to the recent rains. A CDO reiterated this sentiment and stated that, "...too much rainfall led to rotting of farmers' grains and beans." A male youth added that excess rain can lead to erosion. In addition, CBTs reported that the strong winds from these rainstorms have destroyed storage structures and blown off tarpaulins.

These weather-related shocks have hindered farmers' crop yields, thereby hurting their profits. Furthermore, not only have these challenges hurt their livelihoods, but, as one SPO remarked, "Households don't have enough food in store to sustain them until the next season." As adult refugee males noted, "Unreliable rainfall has affected the yield of maize beans and groundnuts, which leads to hunger and low income in the family." Youth women, also in the refugee community, reiterated these same negative consequences.

3.17 Other Shocks

Other than weather, respondents commented on the negative effects of pests and, more recently, the foot and mouth (F&M) disease that broke out earlier this year among cattle. Livestock diseases present a real threat to livelihoods, but households suffering from human illness were reported to be much more frequent. Of household survey respondents, 31% reported facing "sickness in the family" as an economic shock in the past year (Annex II Exhibit A5), which is associated with an average loss of about 300,000 UGX to yearly incomes. Refugee male youth shared that F&M led to the, "...collapse of businesses dealing in animal products." Youth women in the refugee community mentioned diseases more broadly as a problem, which, "...forces the household to sell [poultry] untimely and cheaply." In addition, some participant households in the refugee and host communities pointed out that theft of livestock can also occur and have detrimental impacts on livelihoods.

3.18 Resources and Resilience

Government, Activity staff, and some participants felt that livelihood diversification would be most helpful to households to safeguard their income in case of shocks. Adult refugee women commented broadly that with different income sources they can, "...feel more resilient." Livestock can serve as a valuable asset and livelihood to safeguard against shocks. CBTs recommended that farmers explore improved crop varieties and animal species that, "...can resist or withstand harsh conditions, such as drought or disease outbreaks." An NGO partner staff member suggested that the Activity should 1) link farmers to private or public sector input providers that, "...can reliably supply seeds of drought-tolerant varieties"; 2) engage in "...sensitization of farmer communities about crop varieties which are drought tolerant"; and 3) "...facilitate access to finance for the participants so they can acquire the varieties."

We would desire that we are able to diversify in order to be more resilient.

FGD with Adult Host Men

Some respondents also felt that households should make sure to bolster their savings. CBTs in one focus group emphasized that, "...at least a household having money saved in VLISA, banks, and saving in the form of assets such as livestock could be better..." and noted that participants with these

resources have bartered goats for food. Participants concurred and emphasized the importance of savings. For example, an adult man in the host community remarked that financial resources, "...which can be increased through improving savings practices ... serve as a buffer during times of adversity."

Given the challenge of drought, government and NGO partner staff raised the need for households to have a better grasp of water conservation techniques and access to service providers that can provide irrigation systems and technology. Members of a farmers group in the host community agreed regarding the importance of irrigation equipment but highlighted that these tools often come at a high price.

Finally, coaches shared that activities should have budget set aside for emergency consumption support to help safeguard participants against exogenous shocks like COVID-19. Refugee male youth agreed and explained, "Consumption support from organizations would help us move on with life in such times of difficulty." However, no other participant groups pointed to external financial support. Opinions on consumption support from the QCS suggest that most households would prefer for consumption support to continue to combat unexpected obstacles, such as hailstorms, but households across both host and refugee communities reported that they feel better equipped in business planning to account for the absence of consumption support.

LMA Objective 5: Assess level of private sector engagement with participant households and explore opportunities for greater involvement.

All stakeholders described some level of in-person interaction between participants and the private sector. For example, LC3 respondents explained that agro-input dealers often engage with households to sell items such as seeds, fertilizers, and medicine for livestock. Additionally, an NGO partner staff noted that agro-input dealers are "the main players" when it comes to private sector interaction with households. Not only do input dealers sell equipment and tools, but they also provide advice on input usage and general agricultural practices. As for other actors who may interact with households, an ICT provider described using digital champions³³ to offer services such as crop insurance and VSLA digitization to farmers. During these physical interactions, participants noted private sector actors provide information to farmers regarding the prices of their products.

Financial service providers (FSPs) reach households as well. One FSP interviewed stated that they have, "...one-on-one client visits where we discuss with households on topics like financial literacy with a focus on savings and debt management, and new product and services which they could benefit from." This FSP pointed out that their interactions with the refugee community may be more complicated because, "...language barrier is a major challenge." Furthermore, FSPs engage with groups rather than at the individual household level.

³³ Digital champions are currently used by Ensibuuko, a technology software company providing digital financial solutions to unbanked and underserved communities in Africa. In cohort one, digital champions helped participants use the platform, and supported the sale of phone chargers, accessories, and airtime.

Most stakeholders reported that mistrust characterizes the relationship between these private sector actors and households, especially when it comes to price setting. One LC3 respondent warned that private sector actors, "...manipulate the people in the community..." by buying produce on credit and then giving farmers very low prices, which discourages further interaction. Partner staff reported that buyers sometimes also cheat farmers by using, "...unfair trade tendencies, like use of uncertified weighing scales, which can cause financial loss to the target persons of concern." Another government stakeholder also discussed the use of unbalanced weigh scales.

Buyers are trusted only about 30%; they cheat by coming with low prices to participants, and they need make high profit margin.

FGD with Youth Refugee Women

Quality poses issues as well. A CDO noted, "Sometimes the quality of the items or inputs supplied are not genuine." In addition, the LC5 stakeholder concurred and added that when agro-input dealers, "...sell substandard products ... [they] ... cannot address the farmer's needs." For example, one NGO partner staff shared that seeds from input dealers that have failed to germinate "jeopardizes" trust between households and input dealers. Male refugee youth agreed that the quality of the inputs affects trust, as, "...trust is only initiated when they [the private sector] come and sell to us quality goods and services." Furthermore, members of one farmers group noted that some providers, "...do price discrimination and to reach some of them you have to spend a lot of money in form of transport."

However, these farmers also described the relationship with the private sector as generally good because, "...we have been getting whatever we want from them, and we are able to negotiate the prices of their good and services." Some participants in the host community expressed as well that the trust depends on the regularity of their engagement with various private sector actors. Host adult women, for example, explained that agro-dealers help guide them on how to use the chemicals that they purchase for their crops. Notably, no refugee participants indicated strong trust in the private sector.

We have less trust in private sector people since most of us ... do not have enough connection or interaction with private sector buyers so we do not know much about them.

FGD with Youth Host Women

Interestingly, private sector actors themselves either described the level of trust with participants as medium or very good/good. One FSP stated that because of the, "...regular interactions with these households, there is a greater level of trust they have in our products and services." This respondent expressed that based on feedback received, "...the customers appreciate our relationship management and customer care." Meanwhile, an input dealer mentioned following up regularly with households and supporting them in their enterprises.

Regarding the continuation of existing linkages with the private sector that AVSI has already established, participants held mixed reactions on whether such relationships would be sustained. For example, whereas adult males in the host community pointed out that if they maintain positive business relationships with the input dealers, they can continue to work with them to obtain seeds, host youth women noted that because CBTs and coaches facilitated these linkages, the absence of CBTs and coaches will mean the termination of these relationships with the private sector.

An FSP shared that the Activity could involve private sector partners regularly with participants, "...in order for the different stakeholders to build relationships, which can enhance trust and sustainable

beneficial business relationships.” Partner staff concurred that organizations could play an important role to, “...initiate meetings and other platforms that bring together the private sector and households to share knowledge and relevant experience.” One input dealer recommended that the Activity include participants on the WhatsApp platform used currently to communicate with CBTs so that they can, “...communicate their challenges directly...” to the input dealer.

Furthermore, male refugee youth suggested that private sector companies, “...create branches close to our communities so that we can get the goods and services whenever we need them.” Farmers reiterated that proximity may be helpful, noting “The private sector should have branches in the community so that they are close to the people.”

Government staff mentioned that the private sector can do more to take a community-centric approach to their business by taking the time to establish demonstration plots in the community and to conduct monitoring and follow-up on their services. One LC3 respondent pitched the idea that local leaders could help the private sector to connect better with the community because, “...people have confidence in their local leaders.” Both community and government stakeholders expressed that the private sector could do more through research via a needs assessment, for example, to understand the priorities of the communities in which they work.

To tackle the problem of product quality, a CDO recommended that the Activity identify “credible input dealers” and agro-input shows “renowned for supply of quality inputs.” Furthermore, this CDO stated that the Activity should engage with “major production and distribution companies” and negotiate with them so that they, “...sell at affordable prices.” In addition, youth men in the host community suggested that the private sector communicate crucial information about their products through “community dialogue avenues.”

Government staff stated on several occasions that private sector should provide inputs to households at subsidized prices or on credit, but beyond those blanket statements they did not discuss more details.

Perhaps because of the weaker relationships between participants and private sector, only 10% of participants in the household survey cited private sector linkages as supportive of opportunities to practice their skills. **Thus, despite efforts by the Activity to increase private sector engagement for cohort one, programming could be improved to strengthen this relationship and make it more useful for participants.** In terms of possible improvements, government, community, and private sector stakeholders recommended that the Activity find ways to increase face time between private sector actors and households so that they can build better relationships and households can have a stronger grasp of the products offered. As one farmers group stated, private sector actors have only a, “...limited presence in most villages and trading centers...” so the relationship between participants and the private sector, “...has not been so strong.” One input dealer mentioned the need for demonstration sites within the community, “...to ease farmers’ learning and further interaction.” This person also suggested that AVSI could support public gatherings such as “plant health rallies” where plant doctors can share with community members the challenges that affect agricultural production and ways to address such planting issues.

4. CONCLUSIONS

In this assessment, we used a mixed-methods approach to assess core project livelihood outcomes, provide lessons learned, and offer recommendations for modifications in cohort two. As part of our quantitative approach, we conducted a household survey with 783 households and complemented it with Activity monitoring and evaluation (M&E) data. Qualitative data included 21 focus group discussions (FGDs) and 28 key informant interviews (KIIs); in addition, we reviewed the notes from previous quarterly QCS and standing committees. We triangulated survey quantitative data observations with qualitative findings to provide contextual information for the quantitative results, where applicable. In this section, we provide a summary of key insights, which we elaborated on in Section 3. In addition to our presentation of findings, the following are the key takeaways under each of our LMA objectives.

- LMA Objective 1: Uncover how the various components of the Activity have affected participants' livelihoods
 - On-farm activities represent the most popular livelihoods among cohort one participants.
 - Refugee household members engage in more livelihoods than host household members, but they reported similar net earnings in the past 12 months. Adults engage in more livelihoods than youth and report significantly higher net earnings than youth in the past 12 months. Women engage in more livelihoods than men but reported lower net earnings than men over the past 12 months.
 - In our household survey, we found that about a third of participants changed their livelihoods upon receiving Activity training such as FFBS, enterprise selection, planning, and management, or business coaching.
 - Participants believe coaching is a meaningful component of the Activity. Based on quantitative data, participants in individual coaching had greater livelihood diversification and higher average total net earnings compared with group coaching.
 - Overall, participants praised the FFBS for lessons learned on good agricultural practices. However, qualitative data indicate that uptake of FFBS methods remains limited because of challenges such as land size, personal motivation, financial capital, access to needed inputs, adverse weather, and COVID-19. Further, some participants noted that the FFBS was not relevant for their chosen business venture, since the FFBS mainly focused on just maize, beans, and groundnuts and the lessons were not always generalizable.
 - Almost all stakeholders singled out VSLAs as a successful and impactful component of Graduating to Resilience, and 94% of respondents in the household survey reported access to VSLA groups while 90% reported ease of access to credit by leveraging VSLAs, irrespective of gender, refugee status, and age.
 - Although most participants (90%) used at least some of the asset transfer for purchasing assets for business purposes, they also used this financial assistance for other expenditures, such as home construction, furniture, school fees, clothes, and food.
 - Earnings and profits across all livelihoods, are similar between arm three (no asset transfer) and arm one (asset transfer). While it is not clear why the asset transfer

does not show a significant impact on earnings, it could be the result of the usage of asset transfers for non-business purposes, as noted above.

■ LMA Objective 2: Identify barriers to livelihood development

- Three categories of skills are most common: agricultural techniques (86%), livestock rearing (70%), and business skills such as running retail, grocery, and trading (47%).
- Refugees are significantly more likely than hosts to self-report business skills (57 vs. 38%) and livestock rearing skills (73 vs. 68%). Women are more likely than men to have business skills (50 vs. 43%) but less likely to have construction skills (1 vs. 16%). Adults are much more likely to have skills in agricultural techniques (91 vs. 80%) and livestock rearing (78 vs 58%) than the youth.
- Men who report not having business skills earn significantly more than women in the same position. However, both men and women who have business skills report statistically similar earnings.
- Government and community stakeholders pointed to literacy as influencing employment and level of earnings. The quantitative data indicate that although rates of literacy vary among demographic groups, literacy is broadly associated with significantly higher earnings. However, literate women still make 168,497 UGX less than literate men, so literacy alone appears not to close the gender earnings gap.
- Participants feel that the Activity improved food security because of increased household incomes, which allowed them to purchase more food for the household. Earnings data confirms the qualitative findings, with primary participants from food secure households reporting significantly higher average net earnings in the past 12 months than primary participants from food insecure households (1,175,657 UGX vs. 794,369 UGX; difference is statistically significant at the 1% level).
- Households tend to face cash shortages from March to May and September to October because of agricultural lean seasons. Qualitative data confirm the seasonality of income, although participants reported slightly different months as those reported in quantitative data, as they described higher income in May and June and November through December, and decreased earnings in February through April. The variation perhaps reflects the differing experiences of households and prices obtained for agricultural products, which respondents noted fluctuate quite often.
- Access to credit and startup capital remains an obstacle for households: 55% of households identify “lack of startup capital” as a livelihood challenge. When asked about difficulties faced in accessing credit, households reported that lack of collateral, failure to obtain a loan guarantee, and high interest rates were the most consistent challenges across credit sources. Respondents highlighted these three as main challenges across both formal and informal sources of credit.
- The most salient non-COVID challenges in selling crops are unstable price (37%) and receiving market price (26%). In contrast, when selling livestock, the most common challenges are distance to markets (30%), and household perception that they do not receive market price for the livestock (35%).
- For those engaged in off-farm enterprise, we find that accessing inputs (35%) and cost of inputs (32%) are the biggest challenges.

- To achieve entry to more profitable value chains, government and community stakeholders mentioned that households need more knowledge and skills in modern agricultural practices. For example, an LC3 respondent noted that beyond skills in soil fertility management, post-harvest handling, and storage, households could benefit from financial literacy such as budgeting, and the combination of farming and marketing skills would, "...bring a lot of success."
- Of households, 72% obtain market and agricultural information from the Activity. Other sources include informal/social networks (56%), media (39%), private sector (29%) and extension workers (19%). Furthermore, any access to information is associated with more livelihood diversification (~2.3 livelihoods vs. 2.07 livelihoods).
- Participants expressed a strong interest in ICT for getting information on crop prices (50%), farm inputs (50%), weather (40%), agricultural and business information (36%), new farming techniques (33%), and weather-friendly/fast-yielding crops/livestock breeds (21%).
- LMA Objective 3: Investigate potential new opportunities for livelihood development
 - If given 1 million UGX, households expressed that they would be most interested in starting or expanding business enterprises or livestock. Refugees are more interested than hosts in livestock and business enterprises; adults are more apt than youth to pursue livestock; youth are more enthusiastic than adults about business enterprises; and women are more interested than men in business enterprises.
 - Those involved in off-farm enterprises tend to supplement that work with on-farm activities (76% also engage in on-farm cropping and 51% also engage in on-farm livestock). This suggests that off-farm enterprise work might not be a sufficient stand-alone livelihood to ensure food security. COVID-19 regulations may have contributed to this, given the uncertainty around market closures and transportation restrictions that affected off-farm business operation.
 - On average, diversification between on-farm and off-farm activities is associated with higher earnings, as compared with specializing in one livelihood. The exception here is a pairing with casual labor, which can sometimes yield lower earnings (e.g., off-farm livestock with casual labor offers lower profits than off-farm livestock by itself). If a person is involved in only one livelihood, it is best to engage in off-farm activities or salaried employment.
 - Qualitative data from KIIs with CDOs, LC3s, and Secretaries of Production (among others) identified animal rearing (of goats, pigs, ducks, cattle, and chickens) as the most reported livelihood that would be profitable for households because of smaller land requirements than agriculture and opportunities for quick returns on investment. Outside of animal husbandry, respondents did not seem to agree on which crop value chains would be most profitable. Some of the crops mentioned repeatedly include rice, potatoes, onions, tomatoes, passion fruit, coffee, watermelon, and groundnuts.
 - Partner staff and government stakeholders suggested that participants could explore off-farm businesses in tailoring, art and dance, cosmetology, carpentry, and food and beverage (including catering). Community and government stakeholders felt strongly that youth should have opportunities for vocational training and that education

systems ought to support youth attaining, "...higher levels of education so that they can engage in salaried employment" (LC3 respondent).

- Access to inputs (such as capital, land, and transport), as well as the cost of these inputs, were the top barriers participants faced when engaging in off-farm enterprises. 17% of participants reported a lack of skills or training as a barrier to their success, reaffirming the importance of training in the chosen IGA.
- LMA Objective 4: Understand the impact of exogenous, negative shocks
 - All stakeholders agreed that the COVID-19 pandemic and the resulting movement restrictions affected households significantly. In particular, the closure of markets either reduced income from existing businesses or led to their total collapse. In the household survey, 48% of household members reported COVID-19 regulations as the most common shock affecting their livelihoods. Interestingly, significantly more adults (50%) than youth (43%) rated COVID-19 as a significant shock.
 - Some stakeholders felt that COVID-19 had some positive impacts on the household and community dynamics by increasing unity and connectivity between individuals. Participants also noted that because of restrictions on bars and movement at night, some household members reduced their consumption of alcohol; this was also noted in the QCS. Community and program staff also remarked that households changed their hygiene practices and followed health mandates to wear masks, practice social distancing, and avoid crowds.
 - According to almost all stakeholders interviewed, the main weather challenges in the past few years have been droughts and flooding. In the household survey, drought emerged as the third most prominent economic shock, with 27% of households citing this occurrence as an obstacle to their livelihoods. Respondents also reported that droughts caused them to lose an average of nearly 480,000 UGX in the last year – the third most impactful of the shock options.
 - Other than weather, respondents commented on the negative effects of pests and, more recently, the F&M disease that broke out earlier this year. About 31% of household survey respondents reported facing "sickness in the family" as an economic shock in the last year, which is associated with an average loss of about 300,000 UGX to yearly incomes.
 - Government, program staff, and some participants felt that livelihood diversification would be most helpful to households to safeguard their income in case of shocks. Livestock can serve as a valuable asset and livelihood to safeguard against shocks. CBTs recommended that farmers explore improved crop varieties and animal species that, "...can resist or withstand harsh conditions, such as drought or disease outbreaks."
 - Some respondents also felt that households should make sure to bolster their savings. For example, adult men in the host community remarked, "[Financial resources] which can be increased through improving savings practices ... serve as a buffer during times of adversity."
- LMA Objective 5: Assess level of private sector engagement
 - All stakeholders described some level of personal interaction between participants and the private sector. A partner staff noted that agro-input dealers are "the main players" when it comes to private sector interaction with households. Not only do

input dealers sell equipment and tools, but they also provide advice on input usage and general agricultural practices. An ICT provider described using digital champions to offer services such as crop insurance and VSLA digitization to farmers. Participants noted that service providers often tell farmers the prices of their products during in-person meetings.

- Most stakeholders reported that mistrust is high between these private sector actors and households, especially when it comes to price setting. One LC3 respondent warned that private sector actors, “...manipulate the people in the community...” by buying produce on credit and then giving farmers very low prices, which discourages further interaction. A male refugee youth stated that quality affects trust and partner staff agreed with this sentiment as well, and one partner staff member provided an example of seeds from input dealers that failed to germinate, which “jeopardizes” trust between households and input dealers.
- As one farmers group stated, private sector actors have only a, “...limited presence in most villages and trading centers...” so the relationship between participants and the private sector, “...has not been so strong.”
- Participants held mixed reactions on whether relationships would be sustained with the private sector at the end of the Activity. For example, while adult males in the host community pointed out that as long as they maintain positive business relationships with the input dealers, they can continue to work with them to obtain seeds, host youth women felt that because CBTs and coaches have made these linkages, these relationships with the private sector will not continue without their involvement.

5. RECOMMENDATIONS

In this section, we present recommendations based on key Activity outcomes, limitations, and lessons learned from the assessment. These recommendations do not address all challenges and opportunities from the assessment. Rather, they focus on recommended changes for the success of cohort two programming. The recommendations are grouped by category.

1. Continue with coaching, particularly support for one-on-one business plan development. Compared with group coaching, individual coaching was associated with higher earnings and more livelihood diversification, likely driven by the individual attention on business plans.

- A focus on the business coaching component (centered on financial literacy and executing a business plan) would enable participants to increase their earnings through enhanced or diversified livelihoods.
 - As part of the business coaching, ensure that the CBTs guide the participants to make business plans for new ventures that are complementary, or preferably supplementary, to existing on-farm livelihood activities for a given household. By “complementary,” we mean off-farm crop selling or trading if they are involved in on-farm crop production, or off-farm livestock selling or trading if they are involved in on-farm livestock rearing. By “supplementary,” we mean encouraging the household to invest in an off-farm enterprise that is diversified from existing on-farm activities; this can provide greater resilience for the household against economic shocks. These recommendations are based on concerns that households are not optimally diversifying their livelihood risks. For instance, across all livelihoods, engagement in on-farm crop and on-farm livestock are the most common livelihoods pair (92%), whereas salaried employment is the least common (~2%) despite off-farm work and salaried employment having higher returns.
 - CBTs should encourage animal husbandry as an additional livelihood, particularly rearing goats and pigs. There is both broad interest in livestock rearing and a perception that it is profitable, as well as the cultural practices of saving in the form of livestock. Goats and pigs are desirable, as they do not require as much land as cattle but still yield strong returns.
- Coaches should provide linkages to vocational training, particularly for youth and female household members in fields such as tailoring, hairdressing, and mechanics. Additional training can provide access to higher incomes through enabling the person to work in a new enterprise or gain salaried employment. There is broad interest in vocational training, and youth and women stand to benefit the most from training additional skills. Cash transfers may be used by youth participants to finance their vocation training. It may be worthwhile to vet reliable facilities for vocation training and link youth with them through coaches.

2. Reevaluate FFBS training. We recommend the following changes in FFBS training, based on our findings:

- Make FFBS more flexible by focusing on certain value chains as part of training (e.g., potatoes, cassava, groundnuts, goats, pigs, and chickens) and providing training on both a crop and animal value chain for each FFBS group.

- FFBS training sessions can be used to promote private sector events and activities of interest.
 - AVSI should link participants with private sector actors that provide crop insurance. Participants should be encouraged to purchase crop insurance, from reputable agents, relevant to their chosen crop and the weather patterns typical of their location.. Providing crop insurance linkages to participants and encouraging them to purchase this insurance could help reduce income volatility and promote resilience.
- AVSI should frame “farming” as a business during FFBS value chain selection. In cohort one, initially participants did not think of farming as a business, as they considered it primarily as a means of subsistence. This early framing of farming as a business will help educate and facilitate participants in their journey from self-subsistence farming to one in which farming can be expanded as a profit-making enterprise.
- Make FFBS more inclusive of men. However, AVSI needs to continue to provide business skills to women, as they allow women to earn as much as men.
- Deliver FFBS training sufficiently before the asset transfer, so that participants can make more informed choices regarding how to use cash transfers in pursuit of business development versus alternate ends.
- On-farm crop: Additional training in agricultural best practices would benefit refugees more than hosts. Need reinforcement in good agricultural practices such as mulching, fertilizer application, soil conservation, and line planting as well as post-harvest handling.
- On-farm livestock: Need to focus on providing adequate knowledge and skills in animal rearing, such as zero grazing of cattle.

3. Diversify credit sources. Further, there are concerns regarding lack of loan guarantees and collateral that impede participants from using alternative formal source of credit. Only 4% of households reported access to formal banking institutions, and only 1% of households had access to credit through NGOs. These issues should be addressed to diversify sources of reliable and affordable credit for participants beyond VSLAs. The Activity should seek formal MOUs with financial banking institutions to improve access to credit and attempt to increase access, particularly in the refugee settlement. Diversification of credit options will allow participants to shop around for competitive lending rates and loan terms, ideally addressing concerns about high interest rates and failure to obtain a loan guarantee.

4. Adjust the consumption support. Participants reported more cash shortages during spring months (March–May), so it may be more useful to cohort two participants to vary the amount of consumption support given to them through the year based on need. Even if the total amount given remains constant, shifting some of the funds to March through May distributions could help protect against cash shortages during the lean season.

5. Consider literacy and language initiatives. Literacy reduces earning gaps; illiterate participants face a greater bias and stigma among the community, which may hinder their chances to find employment. Refugees, women, and adults are least literate and need support for literacy the most. Similarly, language barriers should be addressed particularly for refugees, who find it hard to find jobs among hosts due to language barriers.

One possibility is to investigate linkages with initiatives such as the Functional Adult Literacy Programme (FAL),^{34,35} which incorporates a great deal of skill-specific training, in addition to literacy and numeracy. The Ugandan government worked with various NGOs to design FAL as a literacy program with a focus on adult education that linked literacy to people's livelihoods. Since its inception, this program has been decentralized to the office of the CDO at the district and sub county levels. CDOs oversee recruiting community instructors, who then provide trainings both at an introductory level for those who cannot read and/or write, as well as a higher level for literate participants. Instructors are facilitated with a monthly allowance of around 10,000 UGX, depending on the resources available in that district.

6. Evaluate existing ICT partnerships and ensure that these providers are providing accessible ICT solutions to enable greater market integration. Lack of market integration leads to highly variable input as well as output prices over time and can motivate farmers to sell low (harvest season) and buy high (lean season). Participants expressed a strong interest in ICT for getting information on crop prices (50%), farm inputs (50%), weather (40%), agricultural and business information (36%), new farming techniques (33%), and weather friendly/fast yielding crops/livestock breeds (21%). ICT solutions can help fix market failures arising from lack of information that, in turn, will reduce price volatility and enable easier access to quality inputs by giving participants the requisite information on these products. One solution to explore may be a mobile phone-based marketplace for agricultural commodities and to work with private sector agribusinesses to promote the mobile marketplace. A recent large-scale experiment on mobile phone-based marketplaces, using a software platform from Makerere University called Kudu, increased trade and reduced-price divergence across treated markets.³⁶ This promising study shows that access to ICT technologies could benefit market integration. As such, AVSI could leverage its existing relationships with ICT providers to develop this kind of marketplace. However, coaches should continue to work with participants to increase access and knowledge regarding smart phone usage. Already, coaches/CBTs communicate with private sector actors via WhatsApp, but participants could be drawn into this dialogue further and connect directly with private sector via online platforms.

Broadcasting information through radio may present as a cheaper alternative to mobile phone-based solutions and may be considered if the mobile phone-based solutions are too expensive to support for AVSI. Academic research from Uganda has also shown the success of the Market Information Service project in Uganda.³⁷ This project collected data on prices for the main agricultural commodities in major market centers and disseminated the information through local FM radio stations in various districts. Researchers found that better-informed farmers managed to bargain for higher farm-gate prices on their surplus production. In our context, 58% have a radio and 86% of those who have radios tend to listen to radios daily.

7. Link households to private and public sector providers with services in insurance and technological solutions (e.g., drought-resistant seeds) to make households more resilient against shocks like droughts.

³⁴ <https://uil.unesco.org/case-study/effective-practices-database-litbase-0/functional-adult-literacy-fal-programme-uganda>

³⁵ <https://kamwenge.go.ug/index.php/departments/community-based-services>

³⁶ https://novafrica.org/wp-content/uploads/2021/04/2021.04.21_Craig-McIntosh.pdf

³⁷ Svensson, Jakob and David Yanagizawa. (2009). Getting prices right: the impact of the market information service in Uganda. *Journal of the European Economic Association*.

The Activity should improve its vetting of input dealers who provide drought-resistant varieties to reduce livelihood risks associated with farming. CBTs recommended that farmers explore improved crop varieties and animal species that can resist or withstand harsh conditions, such as drought or disease outbreaks. A partner staff suggested that the Activity should 1) link farmers to private or public sector input providers that, “...can reliably supply seeds of drought-tolerant varieties”; 2) engage in, “...sensitization of farmer communities about crop varieties which are drought tolerant”; and, 3) “...facilitate access to finance for the participants so they can acquire the varieties.” The Activity can leverage available public institutions such as the Natural Agricultural Research Institution (NARO) to provide added guidance on flood and drought-resistant seed varieties which would be best suited for Rwamwanja’s local climate. This information could help to inform which specific seed varieties to promote to farmers via the private sector. See the Nutrition and WASH assessment for further details on water-efficient irrigation methods.

In addition, AVSI should provide linkages to crop insurance options and encourage farmers to purchase it if they can afford it to reduce the risk of weather-based shocks.³⁸ Data from our quantitative analyses suggest that protection against drought and pesticides would be most helpful for farmers. Willingness to pay for crop insurance should be measured and analyzed to explore the potential of participants to pay for crop insurance out of pocket as well.³⁹

8. Engage private sector actors early. Encourage regular interaction and face time between private sector actors and participants, which should help not only facilitate linkages but also increase trust through consistent engagement. Some possible ways to bolster this relationship include the following:

- Work with agents or local dealers to set up regular meetings between the private sector actors and participant households; these interactions could also occur at VSLA gatherings.
- AVSI should engage private sector enterprises early to promote value chains and connect participants directly with input suppliers and product buyers. Demonstration sites within the community can be set up by private sector enterprises to ease farmers’ learning and further interaction. Private sector actors could also support public gatherings such as “plant health rallies,” where plant doctors can share with community members the challenges that affect agricultural production and ways to address such planting issues. FFBS training sessions can be used to promote private sector events and activities of interest.
- AVSI itself can strengthen its relationship with private sector actors and motivate them to work more frequently with participants. Perhaps AVSI could offer incentives to the private sector through MOUs, such as guaranteeing that participants will buy products from one service provider in exchange for private sector actors reaching out more to the participants. In addition, households might trust private sector actors more if these actors have been “vetted” by the Activity.
- AVSI could strengthen the capacity of local agents, such as mobile money agents, so that they are better equipped to work with participant households.

³⁸ Abebe, T. H. and A. Bogale, (2014). Willingness to pay for rainfall-based insurance by smallholder farmers in Central Rift Valley of Ethiopia: the case of Dugda and Mieso Woredas. *Asia Pacific Journal of Energy and Environment*, 1(2), 121–155.

³⁹ <https://ebrary.ifpri.org/digital/collection/p15738coll5/id/7039/>

ANNEXES

Annex I. Household Survey Sampling Frame

Quantitative Sampling Frame⁴⁰

Sub county	Number of Households				TOTAL (%)
	Youth Primary (Host)	Adult Primary (Host)	Youth Primary (Refugee)	Adult Primary (Refugee)	
Biguli	25	97	0	0	14%
Bihanga	13	52	0	0	7%
Bwizi	27	91	0	0	13%
Nkoma	22	71	0	0	11%
Nkoma-Katalyeba TC	9	33	0	0	5%
Rwamwanja	0	0	165	275	50%
TOTAL (%)	11%	39%	19%	31%	100%

⁴⁰ All refugee households are located in Rwamwanja settlement within Nkoma subcounty. Host communities are in Biguli, Bihanga, Bwizi, and Nkoma subcounties and Nkoma-Katalyeba Town Council. Distribution of households across subcounties, youth/adult primary participants, and host/refugee status selected for the sample of 880 respondents are representative of the distribution of households in the entire Activity population.

Annex II. Additional Exhibits

Exhibit A1. Household member engagement in main livelihood types by demographic group

Livelihood type	Refugee	Host	Adult	Youth	Male	Female
On-Farm Cropping	85%	85%	88%	79%***	77%	91%***
On-Farm Livestock	59%	54%*	65%	41%***	47%	62%***
Casual Labor	28%	17%***	20%	25%**	26%	19%***
Off-farm	25%	16%***	19%	22%	20%	20%
Off-farm Crop	22%	15%***	19%	16%	14%	21%***
Off-Farm Livestock	11%	6%***	9%	6%**	9%	7%
Salaried Employment	2%	3%	2%	4%***	3%	2%**
N	692	811	946	557	631	872

Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing. (*p < 0.10; **p < 0.05; ***p < 0.01).

Showing all household members (individual-level), if involved in economic activities.

Exhibit A2. Likelihood of engagement in livelihood type if literate by demographic groups

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
On-farm crop if literate local languages	82%	81%	83%	86%	76%***	75%	89%***
On-farm livestock if literate local languages	51%	56%	48%**	62%	35%***	47%	56%***
Off-farm if literate local languages	23%	29%	19%***	21%	24%	21%	25%
Casual labor if literate local languages	20%	26%	17%***	19%	23%	25%	16%***
Off-farm crop if literate local languages	17%	20%	15%**	20%	13%***	15%	19%
Off-farm livestock if literate local languages	8%	12%	6%***	10%	6%**	9%	7%
Salaried employment if literate local languages	4%	3%	4%	3%	5%**	4%	3%
N	948	368	580	555	393	490	458
On-farm crop if not literate local languages	90%	89%	91%	92%	85%**	82%	92%***
On-farm livestock if not literate local languages	64%	62%	68%	68%	56%***	48%	70%***
Off-farm if not literate local languages	16%	20%	10%***	16%	16%	18%	15%
Casual labor if not literate local languages	25%	30%	18%***	23%	32%**	31%	23%*
Off-farm crop if not literate local languages	20%	25%	14%***	19%	25%	10%	24%***

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
Off-farm livestock if not literate local languages	8%	10%	6%	8%	8%	10%	8%
Salaried employment if not literate local languages	1%	1%	0%	1%	1%	1%	0%
N	552	323	229	389	163	140	412

Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing. (*p < 0.10; **p < 0.05; ***p < 0.01).

Showing household members (individual-level), if engaged in economic activities.

Exhibit A3. Likelihood of engagement in livelihood type if literate by demographic groups

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
On-farm crop if literate local languages	82%	81%	83%	86%	76%	75%	89%
On-farm crop if not literate local languages	90%***	89%***	91%***	92%***	85%**	82%*	92%
On-farm livestock if literate local languages	51%	56%	48%	62%	35%	47%	56%
On-farm livestock if not literate local languages	64%***	62%*	68%***	68%*	56%***	48%	70%***
Off-farm if literate local languages	23%	29%*	19%	21%	24%	21%	25%
Off-farm if not literate local languages	16%***	20%***	10%***	16%**	16%**	18%	15%***
Casual labor if literate local languages	20%	26%	17%	19%	23%	25%	16%
Casual labor if not literate local languages	25%**	30%	18%	23%	32%**	31%	23%***
Off-farm crop if literate local languages	17%	20%	15%	20%	13%	15%	19%
Off-farm crop if not literate local languages	20%	25%	14%	19%	25%***	10%	24%
Off-farm livestock if literate local languages	8%	12%	6%	10%	6%	9%	7%
Off-farm livestock if not literate local languages	8%	10%	6%	8%	8%	10%	8%
Salaried employment if literate local languages	4%	3%	4%	3%	5%	4%	3%
Salaried employment if not literate local languages	1%***	1%**	0%***	1%**	1%***	1%**	0%***
N if literate in local languages	948	368	580	555	393	490	458

Indicator	Overall	Refugee	Host	Adult	Youth	Male	Female
N if not literate in local languages	552	323	229	389	163	140	412

Note: Significance is shown on the differences, tested vertically between those who are literate in local languages vs. those who are not literate in local languages (*p < 0.10; **p < 0.05; ***p < 0.01).

Showing household members (individual-level), if involved in economic activities.

Exhibit A4. Household member net earnings (UGX) in the last 12 months pairings matrix

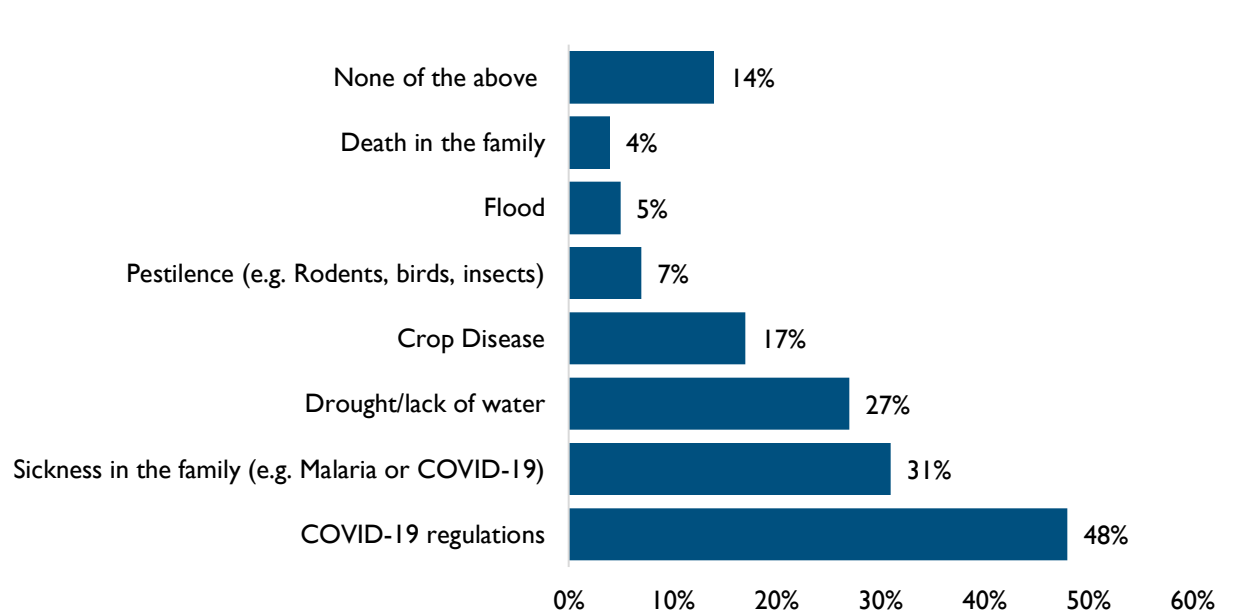
	If the individual is engaged in the column activity, what is the average net earnings reported if they are also engaged in the activity in each row						
	On-farm cropping	Salaried employment	Casual labor	Off-farm enterprise	Off-farm crop	On-farm livestock	Off-farm livestock
On-farm cropping	551,557	-	-	-	-	-	-
Salaried employment	1,546,300	2,444,200 ⁺	-	-	-	-	-
Casual labor	833,006	1,420,000 ⁺	542,970	-	-	-	-
Off-farm enterprise	1,354,723	1,317,143 ⁺	947,024	1,033,391	-	-	-
Off-farm crop	1,324,577	1,133,333 ⁺	1,036,378	1,562,642	1,418,929	-	-
On-farm livestock	1,266,705	1,858,000	906,910	1,401,955	1,284,592	616,300	-
Off-farm livestock	1,424,105	400,000 ⁺	891,023	1,976,402	1,417,636	1,597,005	1,314,286 ⁺

Cells shaded in grey display the average earnings if that household member is engaged **only** in that livelihood.

N varies for each cell; Showing all household members (individual-level), if involved in economic activities; earnings data was trimmed at 99th percentile for outliers.

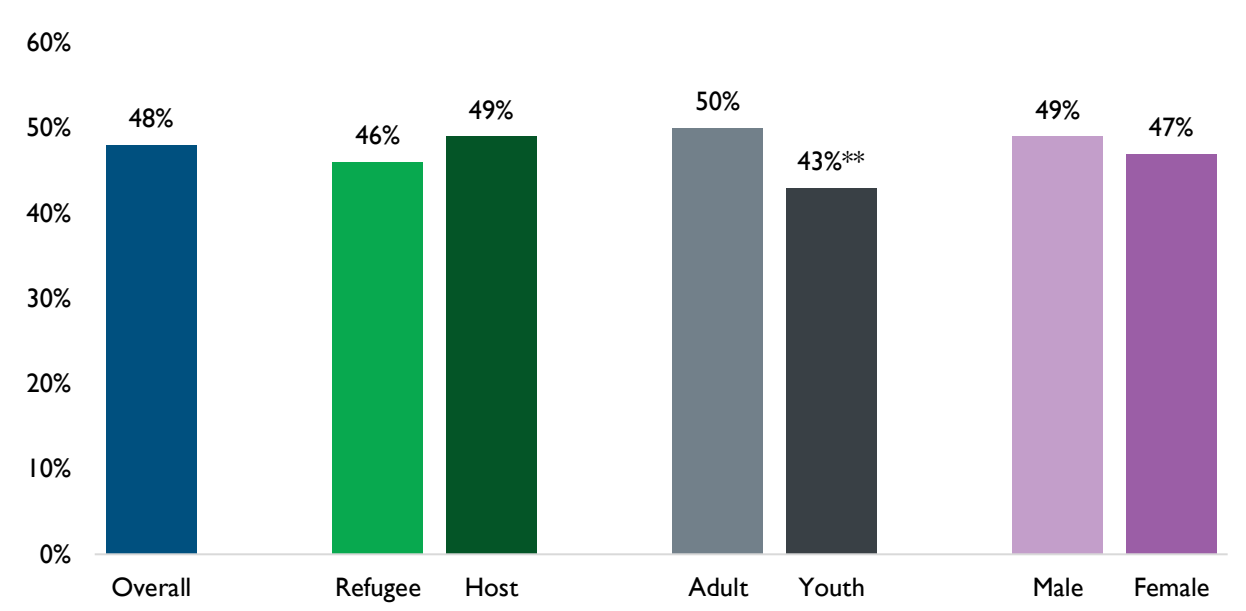
⁺ N size of 10 or less. Caution against drawing conclusions based on these values.

Exhibit A5. Household member shocks faced in last 12 months



N = 1503; Showing household members (individual-level), if involved in economic activities.

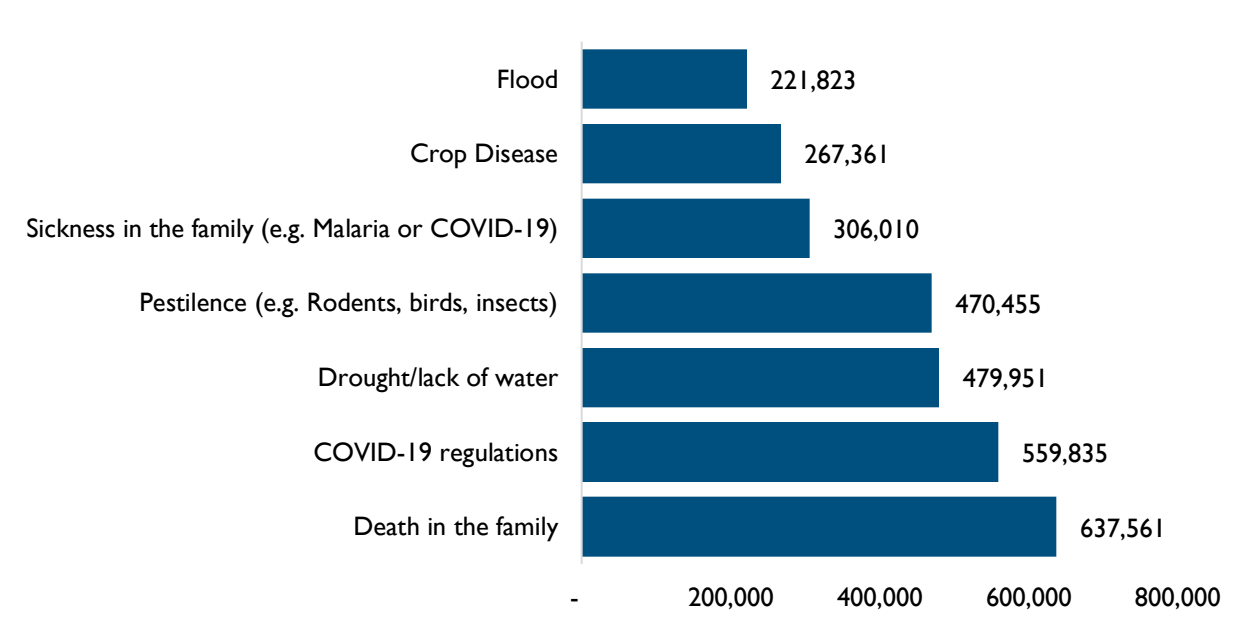
Exhibit A6. Household member experience with COVID-19 regulations as shock to livelihood(s)



Note: Statistical significance is shown for t-test differences between pairs of demographic groups of interest: refugee vs. host, adult vs. youth, and male vs. female. Significance markers are always placed on the second group of each pairing. (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

N = 1503; Showing household members (individual-level), if engaged in economic activities.

Exhibit A7. Household member income lost from shock in last 12 months



N = 57 - 697; Showing household members (individual-level), if selected that they were affected by a given shock.

Exhibit A8. Graduating to Resilience Treatment Arms

PROGRAM COMPONENT	ARM 1 STANDARD GRADUATION	ARM 2 GROUP COACHING	ARM 3 EMPOWERMENT MODEL
Consumption Support	●	●	●
Livelihood Skills Training and Support	●	●	●
Savings and Financial Inclusion	●	●	●
Asset Transfer	●	●	—
Coaching	INDIVIDUAL	GROUP	INDIVIDUAL
Linkage and Referrals	●	●	●

Annex III. Evaluation Matrix

Labor Market Assessment Methodology			
Objectives	Illustrative Research Questions	Data Source	Learning Questions
LMA 1: Uncover how various components of the Graduating to Resilience Activity have affected participants' livelihood activities.	- What kind of livelihood activities do households engage in? How many livelihood activities on average? - Have households engaged in any new livelihoods since participating in Graduating to Resilience? If so, which ones and why? If not, why not? - How has participation across different arms of Graduating to Resilience changed household livelihoods? What has been the most meaningful element of Graduating to Resilience on household livelihoods? - Which component of Graduating to Resilience has had the least impact on household livelihoods? - If households have received an asset transfer, how did they utilize it?	Quantitative: <i>HH Surveys</i> to examine the general patterns and differences in livelihoods among women and men, youth, and poor refugee and Ugandan households; <i>Data on RCT</i> to identify treatment and control villages. Qualitative: KIs, FGDs, Qualitative Case Studies, and Standing Committee Summary Notes Monitoring Data Review: Use of existing internal Activity data sources to determine preliminary conclusions that can be verified by further research: Community-based trainer (CBT) bi-annual & annual data, Coach bi-annual data, COVID context assessments, standing committee reports, qualitative case study reports, post-distribution monitoring data and reports.	- What are the various dimensions of livelihood diversification from business plan creation to business operation? - How have gender employment and livelihood dynamics changed and what does this change mean for time use and women's empowerment? - How effective are Graduating to Resilience interventions in improving livelihoods for youth? - How effective is nutritional programming in improving livelihoods?
LMA 2: Identify barriers to livelihood development, such as structural challenges, which may include	How does education-level and experience-level relate to the wages earned for different types of livelihoods, and how do they vary for refugees and Ugandans and for women and men?	Quantitative: <i>HH Surveys</i> to examine the general patterns and differences in livelihoods among women and men, youth, and poor refugee and Ugandan households Qualitative: KIs, FGDs, Qualitative Case Studies, and Standing Committee Summary Notes	What are the various dimensions of livelihood diversification from business plan creation to business operation?

Labor Market Assessment Methodology			
Objectives	Illustrative Research Questions	Data Source	Learning Questions
access to credit and information	- What are the key periods when livelihoods and household earnings decline or increase? When? Why? - What are the key risks and shocks that households have faced in sustaining employment? How resilient do households feel against these shocks? What are their coping mechanisms? - What are the technical skill gaps that still exist for households to improve their livelihoods and employment opportunities? - How does one's education or skills interact with participants' gender, age, and health to affect employment opportunities? - What are the greatest barriers to higher levels of success in their current livelihoods? How have households tackled these barriers? - Which livelihoods do households consider the most profitable? If they are engaged in that livelihood, how did they achieve this entry? If not, what are the barriers to getting into that livelihood? - How has access to formal credit, markets, information, educational attainment, and existing endowments affected livelihood diversification? - If challenges exist accessing formal credit, what are these obstacles and how have households adapted? What kind of support would households need to enhance their access?	Monitoring Data Review: CBT bi-annual data, standing committee reports, qualitative case study reports, Activity data.	

Labor Market Assessment Methodology			
Objectives	Illustrative Research Questions	Data Source	Learning Questions
	- What channels of informal credit can households' access? - What kind of market information would be most useful to households to improve their livelihoods? - How did participants select their chosen livelihood activity? How did the (limited) access to market information impact their choice? Have they learned additional information that made them change or regret their initial decision? - How are households using the income they earn through these livelihoods? Specifically, is the income used for consumption or production purposes? - How do structural challenges interact with demographic features of participants like gender, age, and health?		
LMA 3: Investigate potential new opportunities for improving livelihoods for poor households and examine diversified household income streams.	- What are some potential other livelihood opportunities that households would like to explore? - How do households diversify their income streams? Is greater livelihood diversification associated with more resilience or other positive outcomes? How does diversification affect ROI? - How have these livelihood patterns changed since the onset of the Graduating to Resilience Activity including shifts along targeted value chains? - How are household and individual-level characteristics associated with	Quantitative: HH Surveys to examine the general patterns and differences in livelihoods among women and men, and among poor refugee and Ugandan households. Qualitative: KIs and FGDs Monitoring Data Review: CBT bi-annual data, annual data, coach bi-annual data, COVID context assessments, standing committee reports, qualitative case study reports, post-distribution monitoring.	- What factors lead to sustainable and effective private sector engagement? - How can interventions like Graduating to Resilience apply a woman-plus approach while effectively engaging the entire household?

Labor Market Assessment Methodology			
Objectives	Illustrative Research Questions	Data Source	Learning Questions
	the types and number of livelihood enterprises households pursue? - How does the pattern differ by gender, treatment arms, geography, age, and nationality? - Do women and men focus in certain livelihoods? - If livelihoods are divided by gender, do the livelihoods women engage in generate more, less, or equal income than those engaged in by men? - How are household and individual-level characteristics associated with income use?		
LMA 4: Understand the impact of exogenous, negative shocks, such as COVID-19 and weather, on labor market and livelihoods.	- How has COVID-19 affected household livelihoods? Has it affected certain households more than others? Which characteristics put a household most at risk? - How have households adapted their livelihoods given the restrictions and the economic impact of the pandemic? How satisfied do households feel about any adaptations they have made? - How resilient do households feel to weather another shock like COVID-19? What strategies would they use? - What kinds of resources would be helpful to households to ensure they can safeguard their businesses against the effects of COVID-19 or future shocks? - How have adverse weather events (e.g. droughts) affected household livelihoods? Has it affected certain	Quantitative: <i>HH Surveys</i> to examine the general patterns and differences in livelihoods among women and men, and among poor refugee and Ugandan households; <i>Community Surveys</i> to gather information on the impacts of pandemic restrictions (e.g. transportation costs) in the villages of interest. Data on local weather conditions (e.g. rainfalls); data on RCTs to assign treatment and control households. Qualitative: KIs, FGDs, Qualitative Case Studies, and Standing Committee Summary Notes	What are the various dimensions of livelihood diversification from business plan creation to business operation?

Labor Market Assessment Methodology			
Objectives	Illustrative Research Questions	Data Source	Learning Questions
	households more than others? Which characteristics put a household most at risk? ▪ What role have various Graduating to Resilience activities played in buffering households from such shocks. ▪ How resilient do households feel to weather another the next drought and weather shock? What strategies would they use? ▪ What kinds of resources would be helpful to households to ensure they can safeguard their businesses against the effects future adverse weather shocks? ▪ Do negative shocks have differing impacts based on a participant's demographic characteristics, like their gender, age, or health? ▪ How can projects be designed to be sustainable to endure exogenous shocks?		

Labor Market Assessment Methodology			
Objectives	Illustrative Research Questions	Data Source	Learning Questions
LMA Objective 5: Assess level of private sector engagement with participant households and explore opportunities for greater involvement	- How do households and private sector engage with each other? - What is the strength of the relationship between households and the private sector? - How likely are participants to sustain existing private sector linkages? - In what ways can private sector support household livelihood development?	Qualitative: KIs, FGDs, Qualitative Case Studies, and Standing Committee Summary Notes	What factors lead to sustainable and effective private sector engagement?