LIVELIHOODS FOR RESILIENCE ACTIVITY ENDLINE INTERMEDIATE RESULTS (IR) ASSESSMENT

Endline Report

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Zerihun Associates Offices		Contact Person
Franco Building, Suite 203, Zewditu St., Kebele 17/18, Addis Ababa, Ethiopia	2221 S Clark Street, Floor 12, Arlington, VA 22202, USA	Abebual Demilew Project Team Lead T: +251 983 837 498 E:abebual@zerihunassociates.com

Executive Summary

The Feed the Future Ethiopia-Livelihoods for Resilience Activity (L4R) is a 6.5-year USAID project led by CARE, with the goal of improving food security for 97,900 chronically food-insecure households in multiple Ethiopian regions. It aims to achieve resilient livelihoods through four main objectives. Zerihun Associates was contracted to and conduct an Endline Assessment using mixed methods, and managed data collection of the endline, ensuring quality through rigorous processes. Despite challenges, Zerihun Associates successfully gathered data from 1802 out of 1849 sampled households. However, the study faced limitations due to external factors, seasonal variations, and methodological inconsistencies, potentially impacting findings' comparability.

Using both cross-sectional and panel data, the study reveals a mix of success and challenges.

Income

Devaluation of the birr during the project period, combined with rising inflation and cost of inputs, negatively impacted household's net inflation-adjust income over time. While in unadjusted terms net incomes increased 154%, when adjusted for inflation, net incomes experienced a 19% decline among cross-sectional households from baseline to endline. At endline, there was an increase in the proportion of households earning income from crop and livestock production and transfers and other sources, but a decline in households earning income from off-farm and wage employment, compared to baseline. There was a slight increase in the average number of income sources per household between baseline and endline (1.5 and 1.7 sources respectively).

Household Assets

The longitudinal analysis of household assets among both cross-sectional and panel data reveals a generally upward trend in overall household asset values and, particularly, in livestock assets over the period from the baseline to the endline. When adjusted for inflation, the overall asset value showed a 43% increase in the cross-sectional data and a 25% increase in the panel data. Livestock assets consistently played a pivotal role in this growth. This rise is particularly notable given the challenging economic conditions, including conflicts.

On-Farm livelihoods

The cross-sectional analysis on household livelihood activities, specifically focusing on Value Chain (VC) engagement, reveals a complex pattern of participation over time. Initially, there was a promising uptick in households engaged in at least one prioritized VC, increasing from 49.5% at baseline to 71.0% in Year 3. This was followed by a decline, reaching 45.9% by the endline. However, there was a slight increase in households engaged in two or more prioritized value chains between baseline and endline, increasing from 38% to 40%.

The panel analysis on Crop and Livestock Activity illuminates the intricate dynamics of household engagement in VCs over time. The trend for panel households participating in at least one Prioritized VC declined from baseline (31%) through year 5 (12%), but by endline had rebounded to 37%, exceeding the baseline value. There was a corresponding 44% increase from baseline to endline in panel households engaging in 2 or more value chains (31% to 44%), indicating greater livelihood diversification over time.

Among households engaged in crop and livestock, there were significant increases in productivity among households engaged at endline for all commodities but onion. For example, wheat production per hectare increased 122%, and the number of eggs per chicken increased 34% among households engaged.

Off-Farm Livelihoods

At endline, households were 10% more likely to have income one or more off-farm activity than at baseline, while there was a 225% increase in households who had income from two or more off-farm income sources, showing significant improvements in off-farm livelihood diversification. Petty trade was the dominant off-farm income source over the life of the project.

Financial Services

There was an 8% increase in the percent of households who were saving in VESAs between baseline and endline (VESA's were already established at baseline) and a 130% increase in the percent of households saving in banks, while there were decreases in the percent of households saving in RUSACCOs and MFIs (66% and 84% reductions respectively)

The average current savings of households at endline was 62% higher than at baseline, using inflation-adjusted values.

There has been a significant improvement in overall loan access, from 57.3% at baseline to 78.8% at endline. Both MHH and FHH have equally benefited. There was a shift from baseline to endline in the most common source of loans – from MFIs to VESAs, though MFIs continued to be an important loan source at endline. There was also an increase in the size of VESA and bank loans over time, but a decrease in the average size of MFI and RUSACCO loans, after adjusting for inflation. The study indicated an improvement in the use of loans for their intended purposes, with the percent of households using more than 90% of their loan for the intended purposed increasing from 54% at baseline to 77.3% at endline.

Loan repayment performance improved slightly for loans taken from VESAs and RUSACCOs from baseline to endline, though repayment of MFI loans declined slightly (from 100% to 85%) with the overall performance driven by reductions in repayment in Tigray and Alamata/Ofla regions.

Women's empowerment

Applying the women's empowerment in agriculture index (WEIA), project women in dual-headed households experienced a 38% increase in achieving empowerment on input into production, a 142% increase in empowerment on control over use of income, and an 8% increase in achieving empowerment for membership in a group between baseline and endline. The other two indicators in the WEIA were not measured at baseline. There was also an 83% increase in women holding a leadership role in a group between baseline and endline.

At endline, women who have their own VESA saving accounts achieved higher levels of empowerment adequacy in every indicator in the WEIA compared to women who do not have their own VESA account. Additionally, while there was a 51% increase between baseline and endline in women reporting that their husbands are helping with household chores, there was also a 73% increase in women reporting that chore sharing was "unfair" or "very unfair". This demonstrates that there were improvements in men taking on housework, as well as shift" in women's expectations around chore sharing during life of the project.

Food Security

Food Consumption Score (FCS), which is calculated based on the prior 7-day, reveals a generally positive status in food security among the sampled households. At endline, a majority, 61.8%, fell into the "acceptable" FCS category, suggesting relatively good food security conditions toward the end of the project. However, 30.9% still remained in the "borderline" category, and a small but concerning 7.4% were classified as having "poor" food security.

The trend analysis of the Food Insecurity Experience Scale (FIES), which captures food insecurity over the last year, reveals a disconcerting temporal trajectory in food security. While the prevalence of panel households identified as "food secure" showed a marginal improvement from 14.8% at baseline to 15% at endline, "severe food insecurity" increased substantially from 31.5% at baseline to 49% at endline among the panel households. The results from the cross-sectional trend analysis were bleaker. At endline, only 4% of L4R households were food secure, down from 16% at baseline. The severity of food insecurity also increased over time, with 59% of L4R households reporting severe levels of food insecurity at endline, up from 31% at baseline.

Nutrition

Perma gardening and poultry production were two of the main interventions promoted by the project to improve household nutrition. At endline, 81% of households who were supported to engage in either Perma gardening or poultry production reported that they had production in the last 12 months.

Rates of children ever being breastfed increased from 92% to 96% between baseline and endline and the practice of feeding infants with colostrum increased from 76% to 88%. While exclusive

breastfeeding for the first 6 months remained high, it declined slightly from 87% at baseline to 80% at endline.

Minimum dietary diversity (MDD) for children 6-23 months increased 148%, from 13% at baseline to 32% at endline, though infant's minimum meal frequency (MMF) decreased from 67% to 54%. Due to the large increase in MDD, children achieving minimal acceptable diet (MAD), a composite of MDD and MML, increased from 7% at baseline to 23% at endline.

Women's dietary diversity (WDD) increased 3-fold from baseline to endline (from 3% to 9%), though it remained low.

Health practices

The project saw early gains in handwashing at critical times, rising from a baseline of just 49% to impressive highs of 93% in Year 4 and 92% in Year 5, though it dropped to 36% at endline.

The practice of open defecation did not change significantly over the period of the project, holding at 33% from baseline and endline, with slight improvements in year 3 and 5.

Contraceptive prevalence declined over the life of the project, dropping from 56% at baseline, to 42% at endline, after reaching 69% in year 5. The endline performance may have been related to interruption of health services in areas impacted by conflict.

Climate Change

The endline survey found high levels of awareness of climate change – the proportion of households who could identify two or more effects of climate change increased 31% from baseline to endline (from 54% to 71%), while the proportion of households who could identify at least one of climate change showed little movement (from 84% at baseline to 86% at endline).

There is a similarly positive trend in the adoption of multiple Climate Change Adaptation (CCA) practices, increasing from 66% at baseline and culminating in a high of 95% by the project's end.

The project supported the dissemination of seasonal weather forecasts and advisories early on in the project, resulting in an increase from 47% of households receiving forecasts and advisories at baseline to 60% in year 3. While the project stopped this support before the cost-extension, at endline 47% still reported receiving forecasts and advisories.

There were increases from baseline to endline in households who reported receiving the advisories at the right time (from 51% to 87%) and households reporting that the advisories and forecasts were useful (from 50% to 75%), while there was no change in households reporting that they implemented at least one advisory (57% at baseline and endline).

Shock exposure and recovery

Project household's experienced high levels and numbers of shocks over the life of the project. At baseline, 93% of households had experienced at least 1 shock in the last 12 months, which increased to 100% at endline. Households who experienced multiple shocks in the last 12 months also increased, from 71% at baseline, to 97% at endline. At baseline, there were three types of shocks that were each experienced by 30% or more households (excessive rain, too little rain/drought, and livestock disease), while at endline, there were six different shocks that were each experienced by 30% or more of households (excessing rain, death of livestock, crop disease, food price inflation, unavailability of agricultural inputs, increase in price of agricultural inputs, and illness of a household member). There were also increases in the impact of shocks on food consumption and income reported by households between baseline and endline.

Despite the increase in the number of shocks experienced, and in the impact shocks had on food consumption and income, at endline households reported higher levels of confidence in their capacity to recover from every single type of shock experienced compared to baseline. Households rating of their own capacity to recover from shocks increased between by 18%-140% from baseline to endline, depending on the type of shock. This demonstrates significant improvements in resilience capacity at endline.

VESA's Contribution to Resilience

The endline assessed the contribution of VESAs to help households to cope during difficult times. Of twelve different services and supports extended through VESA participation, the supports that households were most likely to rate as "very important" for coping in difficult times were VESA savings (72%), receiving inputs for free (68%), VESA loans (66%), increasing their on-farm production (61%), and receiving PACE training (60%, of those eligible).

Social Support

Social support is an important element of resilience. When asked who helped them during the last challenging period, 24% of respondents reported that their family helped them, and 22% reported that their VESA members helped them, reflecting strong social cohesion within VESAs. Just 7% reported that "other community members or friends" helped them, and 1.4% reported that business owners helped them. Among households helped by family, VESA members, or community members, financial support and food were the most common types of support, while those helped by local businesses were equally likely to receive food/inputs on credit, as food or financial support. Family members and VESA members were ranked as the two "most important" sources of support (44% each). Unfortunately, over half (55%) of households reported that no one helped them during the last challenging time. With regards to helping others, about a quarter of households reported that they had helped others during a last difficult period, with community

members and friends (48%) and family (44%) being the most common recipients, followed by VESA members (27%).

Graduation from the PSNP

At endline, 67% of sampled households reported still being in the PSNP, ranging from 90% in Tigray (where both graduation and retargeting for PSNP 5 were interrupted by the conflict), to 46% in Sidama and Gedio. Among those still in the PSNP at endline, 17% were confident they could graduate in the next year (up from 8% at baseline), while 36% were confident to graduate in 2 years (up from 20% at baseline). At endline, only 5% of households who were still in the PSNP reported that they wanted to graduate, which was down from 26% at baseline. Of those who did not want to graduate, 76% report that it was because they would not be able to feed/take care of their family.

Youth

L4R provided tailored programming specifically to youth, and the baseline, endline and intermediate results surveys included a separate youth sample. At endline, 70% of sampled youth reported having received Be Your Own Boss training (up from 42% in Year 4), and 34% of youth had received technical and vocational training (up from 7% in year 4).

There were very large increases in youth employment and income over the life of the project. At endline, 85% of sampled youth reported being employed (self or paid), up from just 11% at baseline. Youth annual income had increased 264% from baseline to endline, after adjusting for inflation.

At endline, 90% of youth reported having joined a VESA in the last 5 years, and of those who had joined, 93% were still members in their VESA. There were also high levels of youth engaging in saving – at endline, 76% of youth had saved in a financial institution in the last 12 months. Youth savings values increased 154% between Year 4 and endline, with the highest savings values made in banks. While most youth (82%) were saving in their VESA, 34% of youth were saving in banks at endline, which represents notable access to formal financial service providers among youth.

Youth lending also increased over time – at endline, 52% of youth had taken a loan in the last 5 years, compared to 38% of youth in Year 5. The majority of youth who had taken loans at endline had taken them from VESAs (63%) and MFIs (40%).

L4R Impact on Households

The endline survey included a number of questions to assess households' perceptions of how their lives are different now, compared to before they joined the project. More than 50% of households reported their household's status as being "better" than before the project for 11 out of 13

indicators, including; their household's food security throughout the year, nutritional status, economic status, understanding of improved agricultural practices, utilizing improved agricultural practices, ability to adapt and recover from shocks, access to loans from formal financial institutions, number of income sources, joint decision-making between spouses, confidence in meeting their family's food and other needs, and confidence to use their skills and knowledge to make their lives better. With regards to perceptions about their household's involvement in off-farm income generating activities, 45% of households reported their status as "about the same" as before the project, while 41% reported being "better" than before the project. Just less than half (49%) of households reported that their connection to input providers (agro-dealers, pullet growers, feed producers) is better now than before the project, though 37% reported that it was about the same.

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List of Abbreviations

Agri Service Ethiopia (ASE)
Be Your Own Boss (BYOB)
Climate Change Adaptation (CCA)
Computer-assisted Personal Interviewing (CAPI)
Contraceptive Prevalence Rate (CPR)
Cooperative for Assistance and Relief Everywhere (CARE)
Coronavirus Disease (COVID)
Ethiopian Birr (ETB)
Female-headed Households (FHH)
Focus Group Discussions (FGDs)
Food Consumption Score (FCS)
Food Insecurity Experience Scale (FIES)
Graduation with resilience to achieve sustainable development (GRAD)
High Frequency Check (HFC)
Household (HH)
Intermediate Result (IR)
Key Informant Interviews (KIIs)
Livelihoods for Resilience Activity (L4R)
Male-headed Households (MHH)
Microfinance Institutions (MFI)
Minimum Acceptable Diet (MAD)
Minimum Dietary Diversity (MDD)
Minimum Meal Frequency (MMF)
Non-governmental Organization (NGO)
Organization for Rehabilitation and Development in Amhara (ORDA)
Personal Advancement and Career Enhancement (PACE)
Probability Proportional to Size (PPS)
Productive Safety Net Program (PSNP)
Relief Society of Tigray (REST)
Rural Saving and Credit Cooperatives (RuSACCO)
Southern Nations, Nationalities and Peoples (SNNP)
Stichting Nederlandse Vrijwilligers (SNV) ("Foundation of Netherlands Volunteers")
Tropical Livestock Unit (TLU)
Technical and Vocational Education Trainings (TVETs)
United States Agency for International Development (USAID)
Value Chain (VC)
Village Economic Social Associations (VESAs)
Women's Dietary Diversity (WDD)
World Health Organization (WHO)

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1. Introduction

The Feed the Future Ethiopia-Livelihoods for Resilience Activity (L4R) is a United States Agency for International Development (USAID) project that has been running for 6.5 years from December 2016 to July 2023, following a cost extension received in July 2022. Building from the preceding Graduation with Resilience to Achieve Sustainable Development (GRAD) project, L4R supports Productive Safety Net Program (PSNP) households to build resilient livelihoods with improved food and nutrition security, even in the face of shocks and stresses. The project works in support of the livelihood component of the Government of Ethiopia's PSNP and targets PSNP households in what are now 37 Woredas of Amhara, SNNPR-Sidama & Gedio, SNNPR-Hadiya, and Tigray and Alamata/Ofla regions, with the aim of enabling 97,900 households to graduate with resilience from the PSNP. During the cost extension period, L4R expanded to four Woredas of Oromia as well (Kurfachelle, Girawa, Chiro, and Gemechis), for a total of 41 Woredas covered.

Cooperative for Assistance and Relief Everywhere (CARE), leads the consortium, plays an overall leadership role and implements field activities in Sidama (now its own region), Gedio Zone of SNNPR, and in the three Woredas of Ofla, Alamata and Zata. *ORDA Ethiopia* implements activities in Amhara**,** *Relief Society of Tigray (REST)* implements activities in Tigray***)***, *Agri Service Ethiopia (ASE)* implements in the Hadiya Zone of SNNPR, and *SNV* provides technical support for value chain development, private sector engagement, and agricultural input supply.

2. Objectives

2.1. Objectives of the Project

The L4R Activity has four sub-purposes that work in tandem to contribute towards achieving the main purpose of enabling 97,900 chronically food insecure households to graduate with resilience from the PSNP. The L4R objectives are listed below.

- Members of PSNP households have increased capacities for undertaking resilient livelihoods,
- PSNP households have economically viable and resilient livelihood portfolios,
- An enabling environment supports resilient livelihoods for PSNP households, and
- Collaboration, learning, and adaptive management processes enhance, scale up, or facilitate replication of impact.

2.2. Objectives of the Study

The L4R Activity collected data on Intermediate Result (IR) indicators for four rounds (2017, 2019, 2020/2021, and 2022) to measure the annual performance of the project through repeated annual beneficiary-based surveys. Zerihun Associates conducted the final year (2023) data collection to measure performance indicators of the L4R Activity and track progress towards ultimate outcomes and objectives. The specific objectives of this study are:

- To conduct an **endline IR assessment** based on key performance indicators to gauge the project's impact against 2017 baseline results, and

- To perform a **multi-year trend analysis** using panel data and cross-sectional data collected at the endline and during the previous four rounds of IR assessment results to understand changes over time.

3. Methodology

3.1.Endline Assessment

Zerihun Associates utilized a mixed-method study design that involved the collection of both quantitative and qualitative data from each of the L4R implementation regions - Amhara, SNNPR-Hadiya, SNNPR-Sidama & Gedio and Tigray and Alamata/Ofla regions. Oromia Region was not included in the endline, as activities in Oromia were only implemented during the final cost-extension year, with no prior data collected to compare performance to. The Endline Assessment had a sample of 1,072 households with adult members of Village Economic Social Associations (VESAs) (of which 100% were reached by the survey team), 377 project youth (of which 356 were reached), and 400 panel households (of which 374 were reached). The endline surveys utilized survey tools developed by the CARE team, which largely replicated the tools from prior years to ensure comparability, with some additions. To further explain and triangulate quantitative findings, qualitative information was collected through a total of 48 Key Informant Interviews (KIIs), 32 Focus Group Discussions (FGDs) and 12 Case Studies across the L4R implementation regions.

3.1.1. Sampling Strategy

Quantitative Data Collection

Zerihun Associates applied the same sampling strategies as used during previous IR assessments to draw a regionally representative project sample from each sampling frame (See Table 1: Endline IR Assessment Sampling Frames below). We implemented a two-stage sampling approach consisting of the following steps.

- ***Sampling Kebeles:*** A sample of 67 Kebeles were selected from the L4R implementation Woredas using the Probability Proportional to Size (PPS) sampling method.
- ***Sampling Households:*** 16 sample households were selected from each stratum, as outlined above randomly from each selected Kebeles. The total sample size across the 67 sample Kebeles amounted to 1,072 cross sectional households.

Table 1: Sampling of cross-sectional households and project youth

Regions	L4R Implementation Areas		Cross Sectional HHs			Project Youth			Panel HHs	
	Project Woredas	*Sample Kebeles*	*Project HHs in sample frame*	*Sampled HHs*	*Interviewed HHs*	*Project Youth in sample frame*	*Sampled Youth*	*Interviewed Youth*	*Sample HHs at Baseline*	*Interviewed HHs at endline*

Amhara	7	16	34,160	432	432 [100%]	1,868	169	169 [100%]	134	127 [94.8%]
SNNPR-Sidama & Gedio	10	10	11,968	160	160 [100%]	692	39	39 [100%]	71	65 [91.5%]
SNNPR-Hadiya	6	6	7,255	96	96 [100%]	656	26	26 [100%]	39	39 [100%]
Tigray and Alamata/Ofla	14	15	30,295	384	384 [100%]	2,627	143	121 [84.6%]	156	143 [91.7%]
Total	***37***	***67***	***83,676***	***1,072***	***1,072 [100%]***	***5,843***	***377***	***355 [94.2%]***	***400***	***374 [93.5%]***

The endline IR assessment also included interviews with 400 panel households that participated in the last four (4) IR assessments. Zerihun Associates used the list of panel households provided by the CARE team to carry out the interviews while putting in place effective provisions for minimizing attrition.

Qualitative Data Collection

Zerihun Associates conducted the qualitative data collection among the same 67 sample kebeles selected for the household/project youth surveys in order to explain and triangulate the quantitative findings. Out of the 37 L4R target woredas, we randomly selected 16 sample woredas using the PPS sampling method for each of the four implementation areas. One sample kebele was then randomly selected in each sample woreda to administer three KIIs and two FGDs. For the Case Studies, we selected one sample Kebele in 12 out of the 16 sample Woredas. One eligible household per sample Kebele was selected for the Case Studies in close collaboration with the CARE team. Case Study households were purposively selected to represent beneficiaries who participated in the interventions implemented during the cost-extension period.

Table 2: Sampling strategy for the qualitative data collection

Qualitative Data Collection Tools	Target Participants	Sample Kebeles	Sample Size	
			Per Kebele	*Total*
KIIs	• Community facilitators/frontline project staff - 16 • Innovation Fund Recipients (Pullet Growers, agro-dealers, feed processors, bee colony multiplier) - 16 • Agricultural and livestock experts - 8 • Kebele officials - 8	16	3	48

FGDs	FGDs generally comprise 5-8 participants, with separate groups for: • Mixed group of VESA members: focused on Resilience - 16 • Female VESA member FGDs: focused on women's empowerment - 8 • Female PACE trainees: focused on women's empowerment - 4 • Project youth: focused on livelihoods and access to finance - 4	16	2	32
Case Studies	Case focused on stories of L4R cost-extension participants/beneficiaries including: • Dual-headed households - 4 • Women VESA members - 4 • Project youth - 4	12	1	12

4. Survey Implementation

4.1.Recruitment of Survey Team

The data collection team was assembled from Zerihun's database, which boasts more than 500 qualified and reliable contractual enumerators, supervisors, and coordinators throughout Ethiopia. A researcher in our database has, on average, worked on 8 large-scale surveys with Zerihun Associates.

During the recruitment process, priority was given to candidates who had experience working in agricultural household surveys. Records of enumerators' performance appraisal, previously prepared by supervisors and field coordinators, were also consulted to further screen candidates. Other factors that were considered during field team recruitment include:

- Minimum of an undergraduate degree
- Experience conducting agricultural surveys and knowledge about the study areas
- Communication and interpersonal skills
- Ability to work in a team
- General understanding of the instruments
- Electronic data collection device literacy (familiarity with tablets and electronic data collection)
- Proficiency in English and Amharic
- Native speakers of Gideofa, Hadiisa, Sidamigna and Tigrigna.

Zerihun Associates recruited 65 enumerators and 12 qualitative data collectors as well as 11 supervisors who spoke the local languages in the areas where we planned to assign them. Most recruits had strong recommendations from previous performance reports.

4.2.Training

Prior to data collection, Zerihun Associates delivered five (5) days of comprehensive training to the recruited Enumerators and Supervisors covering all aspects of the Endline Assessment. Throughout the training, the CARE team answered questions raised by trainees on some sections of the questionnaires. The training took place in Addis Ababa between May 29, 2023 - June 2, 2023. And the qualitative team began training on May 31, 2023.

First Day [May 29, 2023]: Zerihun Associates' team presented the project objectives, survey protocols, the questionnaire, research ethics (including consent), methodology and sampling, interaction with participants, and survey team roles and responsibilities. In the afternoon, printed questionnaires were provided to familiarize the trainees with the Endline Survey.

Second Day [May 30, 2023]: After trainees finished discussions on the paper-based survey, they engaged in a question-and-answer session. For questions directed at CARE, the trainers put the questions on a live google sheet and the questions were addressed throughout the discussion.

Third Day [May 31, 2023]: CARE staff joined the training to address the questions that were being raised by the field team. On this day, the field team began training on SurveyCTO/CAPI and used electronic tablets to fill out the questionnaire. The qualitative team also began training on this day and the team discussed the project background, objective of the project, ethics in qualitative research, basic communication and interviewing skills, transcription, and data transfer.

Fourth Day [June 1, 2023]: In the morning session, the quantitative team conducted role play where two enumerators were teamed up on stage to fill out the electronic survey in front of everyone so the rest of the trainees could follow along. During this time, the qualitative team discussed the five tools (Endline FGD guide, Women only FGD guide, Youth FGD guide, Innovation Fund KII Tool, and Community Facilitator KII tool). In the afternoon, the team conducted mock interviews that mirrored real interviews in a one-on-one format, which gave enumerators the opportunity to ask any questions that might arise in the interview process.

Fifth Day [June 2, 2023]: Both the qualitative and quantitative teams finalized the mock interviews and data from the mock interview was shared with the CARE team as well as the in-house quality and data analysis team. In addition, the Zerihun Associates team filled out electronic evaluation forms to assess enumerators' performance in conducting the survey to help select highly qualified enumerators. By the end of the training, Field Coordinators selected 65 of the 66 recruited Enumerators along with 11 Supervisors and 9 Qualitative data collectors to carry out the endline assessment.

4.3.Data Collection

Data was collected between June 04, 2023 - June 22, 2023. Qualitative data collection began on Monday June 05 and ended on June 25, 2023.

Final Survey Sample. Interviews were conducted with a total of 1072 Cross Sectional Households (100% of sample), 356 Youth (94% of sample), and 374 Panel Households (93.5% of sample) – in total, 1802 of the 1849 sample households, youths, and panel households were reached. A total

of 47 KIIs, 34 FGDs and 16 case studies were conducted across the Amhara, Tigray and Alamata/Ofla, SNNPR-Hadiya and SNNPR-Sidama & Gedio regions.

Zerihun Associates deployed 4 qualitative and 11 quantitative teams - 5 teams to Amhara region, 3 to SNNPR, 2 to Sidama region, and 5 to Tigray region & Ofla/Alamata. Each quantitative field team was composed of 6 enumerators and 1 supervisor. All the enumerators were supplied with the necessary survey equipment, including mobile tablets, chargers, power banks, extra batteries, notebooks, as well as required permits, clearances, approvals, and letters of authority from relevant agencies. Supervisors were provided with unlimited internet packages to expedite the timely synchronization of completed interviews at the end of each data collection day.

The L4R community facilitators assisted the qualitative data collection team by identifying and communicating with the sample project beneficiaries and arranging the set up for KII, FGD and case study participants. They had direct communication with data collectors and served as a bridge between kebele officials, data collectors and sample beneficiaries. The field team prepared randomly selected reserve lists of eight households and eight project youth in each sample Kebele. When a respondent was unreachable after 3 attempts the field team reported the case to the CARE team and replaced them with households/youth from the reserve lists for the cross-sectional and youth surveys. All replacements were decided on a case-by-case basis in close consultation with the CARE team. For unreachable panel households, there were no replacements made, as the sample followed the same households each year. The table below summarizes the final sample for data collected:

Table 3: Quantitative data collected by sample frame and region

Regions	Household	Panel	Youths	Grand Total
Amhara	432	127	169	**728**
SNNPR-Hadiya	96	39	26	**161**
SNNPR-Sidama and Gedio	160	65	39	**264**
Tigray & Alamata/Ofla	384	143	121	**649**
Grand Total	**1072**	**374**	**355**	**1802**

Table 4: Qualitative data collected by target group and region

Qualitative Data Collection Tools	Target Participants	Regions				Total
		Amhara	*SNNP-Sidama and Gedio*	*SNNP-Hadiya*	*Tigray & Alamata/Ofla*	
KIIs	Community facilitators/frontline project staff	5	3	4	4	16
	Innovation Fund Recipients	5	4	3	6	18

	Agricultural and livestock experts	3	-	2	1	6
	Kebele officials	1	2	3	1	7
	Total	***14***	***9***	***12***	***12***	***47***
FGDs	Mixed group (male & female) of VESA members	5	2	3	4	14
	Female VESA members	2	2	2	2	8
	Female PACE trainees	1	1	2	2	6
	Project youth (male & female)	2	2	1	1	6
	Total	***10***	***7***	***8***	***9***	***34***
Case Studies	Cost-extension project participants	7	2	4	3	16
Total		**31**	**18**	**24**	**24**	**97**

4.4.Data Quality Assurance and Analysis

Zerihun Associates observed standard procedures throughout the endline assessment to generate high-quality data for the CARE team. Our data quality assurance process focused on both ***monitoring incoming data*** and ***controlling activities in the field***. We put in place the following quality assurance provisions throughout the endline assessment.

- **Visual Inspection** was completed by Supervisors as they reviewed data collected by their team every day before uploading the completed forms to the server. This was done on the ground to allow for the possibility of sending the Enumerator back to the respondent if needed.
- **High Frequency Check (HFC)** was conducted by the data management team to monitor incoming data and detect any inconsistencies in the survey on a daily basis during the survey. We ran a STATA script on a regular basis to monitor data quality and detect potential errors or anomalies in a dataset. This included a set of data quality tests such as location, duration, and time difference between interviews. Data inconsistencies found through high-frequency checks were thoroughly discussed with the quality team and the Quantitative Field Coordinator. After these inconsistencies were verified by Supervisors, corrections were made, and the entire process was documented. These HFCs allowed the field team to rectify any issues while Enumerators were still present in the study area.
- **PowerBI Dashboard** was mainly used for tracking survey progress and quality control. Through various features on PowerBI, we checked incoming data for inconsistencies, outliers, null values, and duplications - all stratified by Supervisors, Enumerators, study location, different modules on the questionnaires as well as sex and ID of respondents. On a daily basis, we checked the date, duration, and timestamp of incoming data as well as the location of interviews to flag any outliers and detect any non-sequential order of survey modules.

- **SPSS** was used for cleaning the final datasets from the endline IR assessment. The data cleaning included (i) removing peripheral data fields that were not part of the html version of the questionnaire, and (ii) double-checking ID duplication.
- **Conditional Formatting** was used on live Google Sheets integrated with the server to identify and flag data inconsistencies of incoming data based on dependencies, range, and uniqueness as well as questions that require extra care due to error-proneness.
- **Correction Tracking Sheet** was used by the data management team in collaboration with the quality team to document any data inconsistency and errors (including errors in categorization, translation, and typo errors) flagged during quality checks and make corrections after getting approval from the CARE team, which was used to make necessary changes on the server during the data cleaning process.
- **Transcription** was written verbatim (exactly word-for-word) and aimed to capture features of the interviews. The data collectors were given clear instructions and guidelines on transcription and the in-house team made sure through constant check-in that it was being adhered to.
- **Qualitative Audio Auditing** was done by Quality Checkers as they listened to audio recordings of all completed KIIs/FGDs/Case Studies and compared their accuracy against their respective transcriptions. We employed five Quality Checkers that are fluent in Amharic, Tigrigna, Sidamigna, Gideofa and Hadiisa languages. Quality Checkers were present during the training so they could be familiarized with the background of the study, its objectives and general survey protocols to ensure they had the proper context needed for quality control. The main parameters of focus during audio audits included interview promptness, interviewer proficiency, interview location, and participant privacy. Audio audits were used to evaluate each enumerator's performance regarding command of language, understanding of the tools, research ethics, probing, time, following procedures and protocols, audibility, noise, categorization, and conflicting responses.

4.5.Challenges and Mitigations

Zerihun Associates had to navigate a few challenges for the successful implementation of the Endline Survey. Some of the major challenges faced during the data collection as well as the mitigation measures taken are presented in the subsequent paragraphs.

Obtaining youth samples in most Kebeles was challenging for various reasons, however, the survey team overcame these hurdles by either replacing missing youth or replacing the Kebeles altogether. These challenges included youth moving away to other areas due to marriage, in search of job opportunities, or displacement due to conflicts. The survey team replaced these missing youth to ensure the integrity of the survey sample size. In 19 of the sample kebeles, there were instances where the survey team had insufficient replacement youth or where youth groups did not exist at all, which led the team to replace all these 19 kebeles with other kebeles.

Security issues in some parts of the Gedio Zone, Alamata Woreda and Amhara Region hindered data collection, which led the survey team to replace certain Kebeles and households. These were specifically prevalent in the Gedio Zone of SNNP Region (Kocherie Woreda, Kedida Giwe Kebele), Amhara Region (Gubalafto Woreda, Sekela Kebele) and in Raya Alamata Woreda (Sorya Kebele). These Kebeles were replaced by Debo, Sagat, and Laelay Dayu Kebele, respectively. In addition to these Kebeles, some households needed to be replaced for

reasons including displacement, participants that couldn't be found, and households not joined by the spouse during the interview. These Kebele and household replacements ensured the accuracy and completeness of data collection.

In cases of panel household attrition, where the individual previously interviewed was unreachable, the survey team conducted the survey with the partner of the initial beneficiary. In instances where the adult household member who was interviewed for the baseline survey had moved away from their Kebeles due to various reasons and could not be located, the survey team conducted the survey with the partner of the originally interviewed individual.

Poor road infrastructure in certain areas of Amhara and Tigray regions made some Kebeles and households inaccessible, however, the survey team was able to hike to reach beneficiaries. For instance, accessing Raya Kobo's Awasie Kebele required survey teams to undertake a rigorous five to six-hour hike on foot. Similarly, in the Hadiya zone, the survey team had to consult with local authorities and experienced locals to get around road closures that were caused by heavy rainfall.

4.6.Limitations of the Study

- **Data collection periods:** Prior rounds of Intermediate Results surveys were collected in December and January, while the endline survey data was collected in June. This was done in order to capture the impact of the cost-extension period, which ran from July 2022 -–July 2023. The difference in timing of data collection between rounds could impact the comparability of the endline performance for indicators with a seasonal effect, such as income and food security.
- **External factors:** Over the period of the L4R project implementation, there were several factors external to the project that impacted household economic wellbeing, food security, access to markets, and exposure to shocks. Household level changes could be influenced by various external factors, such as macroeconomic fluctuations, policy changes, and unforeseen events (including the 2-year conflict in northern Ethiopia and the COVID-19 pandemic) that occurred during the project period and could impact the outcomes being measured. Such factors could have led to reduced access to various intervention opportunities and eroded resilience options that would have otherwise been available.
- **Recall bias:** The survey relies on participants' ability to recall their intervention experiences, and engagement in project activities over varying periods of time (1 year, 5 years, etc.). For example, participants might struggle to accurately recall the exact amount of money saved or earned over the past years, introducing potential inaccuracies.
- **Explaining changes over time**: The comprehensive nature of this study, encompassing a wide array of indicators, posed limitations in delving deeply into each one and considering the contextual factors that might influence them. Consequently, it becomes challenging to provide exhaustive explanations for all the observed trends. While the report does track changes over time, it may not thoroughly analyze the intricate underlying causes behind these changes. For instance, a decrease in youth employment rates could be linked to various factors such as economic fluctuations or civil unrest, but the report does not extensively investigate these contributing aspects. **economic** downturns or civil unrest, but the report doesn't investigate these aspects.

- **Absence of comparison groups:** The report discusses variations in outcomes across implementation areas and household head but does not include comparison groups of non-project participants. For example, comparing targeted households with other comparable non-target households could yield valuable insights, but was not part of the study design during any round of data collection. The lack of a comparison group makes it difficult to attribute impact to project interventions.
- **Generalizability to other regions:** The report mainly focuses on findings from specific regions, such as Tigray, Alamata/Ofla, Amhara, SNNPR-Hadiya, and SNNPR-Gedio and Sidama. The study's methodological approach might not be easily adaptable to other regions with potentially different socio-economic contexts.
- **Analysis of prior rounds:** While this report includes trend data for prior years of the IR assessment, Zerihun Associates only collected the data for the endline. Efforts have been made to recreate the analysis for each section using the prior datasets, but in some cases, it was not possible. In these instances, the point estimates previously reported were used for prior year's values, and only the endline data was newly analyzed. Where reanalysis was done, Zerihun may have used slightly different approaches and methodologies than the previous firms, which could impact the consistency with prior reports.
- **Missing data due to conflict:** Due to the conflict in northern Ethiopia between Nov 2020 – Nov 2022, cross-sectional data could not be collected from households in Tigray, Ofla and Alamata in years 4 and 5. Panel data was also not collected from Tigray, Ofla and Alamata in year 5, and was collected from only 34 out of 156 households in year 4. Thus, throughout the report, cross-sectional performance reported for years 4 & 5 and panel data in year 5[1] excludes Tigray, while baseline, year 1-3 and endline performance includes all regions. Therefore, the total/average figures for years 4 and 5 are not fully comparable with those from Year 1, Year 3, and endline.

5. Findings

The organization of the findings in the research report is designed to provide a comprehensive understanding of the outcomes by presenting both cross-sectional and panel data. Cross-sectional data, gathered from a new sample of projects households at specific time points, offers insights into the state of the outcomes of interest for each survey period across the full project caseload, including households that joined the project in years 2 or 3. This data enables comparisons between different regions and demographic groups at a particular moment in time, shedding light on variations and patterns. On the other hand, panel data, collected from the same households over multiple time periods, helps reveal the dynamics of change and trends over the course of the study, for households that joined the project in its very first year. By tracking the same households over time, the report tries to identify temporal changes, evaluate the outcomes of interventions, and explore how outcomes evolve over the project duration among households who were engaged in the project from its start. This combination of cross-sectional and panel data enhances the richness and depth of the findings, providing a comprehensive picture of both the static and dynamic aspects of the project interventions. Wherever applicable, results from both cross-sectional and panel data were reported in each section. The qualitative analysis, detailed in a separate report, offered

[1] Note: Only 34 household's data were collected in Tigray and Alamata/Ofla region on Year 4

valuable context, nuance, and enriched insights that complemented the quantitative findings. In this report, it provided essential answers to "why" and "how" questions that quantitative data alone might not capture. By triangulating both quantitative and qualitative data, the report achieved a more holistic understanding of the complex dynamics within project outcomes of interest. Qualitative findings, referenced in this report, are presented in the form of case studies, presented in the Annex section, and in a separate qualitative report.

5.1.Household Characteristics

In both the current and previous surveys, respondents were asked to identify the gender of the primary head of the household. If the respondent indicated that an adult male held the role of household head, these households were classified as "Male-headed Households" (MHH). Conversely, households where the respondent identified the household head as female were categorized as "Female-headed Households" (FHH). In most cases, MHH consist of two adult spouses, one male and one female, residing in the same household, while FHH typically consist of a single adult woman without a spouse living in the household.

Across all regions, dual-headed households are the most common household type. Female-headed households, although less common than dual-headed households, represent a significant proportion of households in all regions. This suggests that for many households, women are responsible for household leadership and management.

Single Male-headed households are the least common household type in these regions, with the lowest percentage observed in SNNPR Hadiya (1.3%) and the highest in Amhara (5.8%).

Table 5: Household characteristics during interview time by region

	Tigray and Alamata/Ofla		**Amhara**		**SNNPR-Hadiya**		**SNNPR-Sidama and Gedio**		**Total**	
	%	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**
Cross-sectional										
Sex of HH head										
Male	59	227	78	336	71	68	67	107	69	738
Female	41	157	22	96	29	28	33	53	31	334
Total	**100**	**384**	**100**	**432**	**100**	**96**	**100**	**160**	**100**	**1072**
Sex of respondent 2 (Spouse)										
Male	9	22	5	17	2	1	13	16	8	56
Female	91	211	95	311	99	66	87	105	93	693
Total	**100**	**233**	**100**	**328**	**100**	**67**	**100**	**121**	**100**	**749**
Panel										
Sex of HH head										
Male	51	73	69	87	49	19	52	34	57	213
Female	49	70	32	40	51	20	48	31	43	161
Total	**100**	**143**	**100**	**127**	**100**	**39**	**100**	**65**	**100**	**374**
Sex of respondent 2 (Spouse)										

Male	18	15	11	10	10	2	24	11	16	38
Female	82	70	89	78	91	19	76	34	84	201
Total	**100**	**85**	**100**	**88**	**100**	**21**	**100**	**45**	**100**	**239**

The average household size displays regional variations, with SNNPR-Hadiya having the highest at 6.3, while Amhara exhibit the lowest mean household size at 4.9. Tigray and Alamata/Ofla falls in between with an average household size of 5.1.

Table 6: Average household size

	TIGRAY AND ALAMATA/OFLA	AMHARA	SNNPR-HADIYA	SNNPR-SIDAMA AND GEDIO	MHH	FHH	TOTAL
HH SIZE	5.1	4.9	6.3	5.7	5.6	4.3	5.2

Regarding households with VESA accounts, the dataset also provides information on households where both adult women and men have two VESA accounts. As per Table 7 below, among households that have at least two adults, 37% had two VESA accounts. The denominator for this result includes all households with more than one adult, whether or not they are a married couple (i.e., it includes households with adult children, or other adult relatives). The percentage of households with both adult women and men having their own VESA account varies across regions, with Amhara having the highest percentage at 59% and Tigray and Alamata/Ofla having the lowest at 10%.

Table 7: Percentage of households with both adult women and man having two VESA account by region

	Tigray and Alamata/Ofla		Amhara		SNNPR-Hadiya		SNNPR-Sidama and Gedio		Total	
	%	N	%	N	%	N	%	N	%	N
Households with both adult woman & man having VESA account	10	29	59	225	12	10	51	71	37	335
Total	**100**	**296**	**100**	**383**	**100**	**83**	**100**	**140**	**100**	**902**

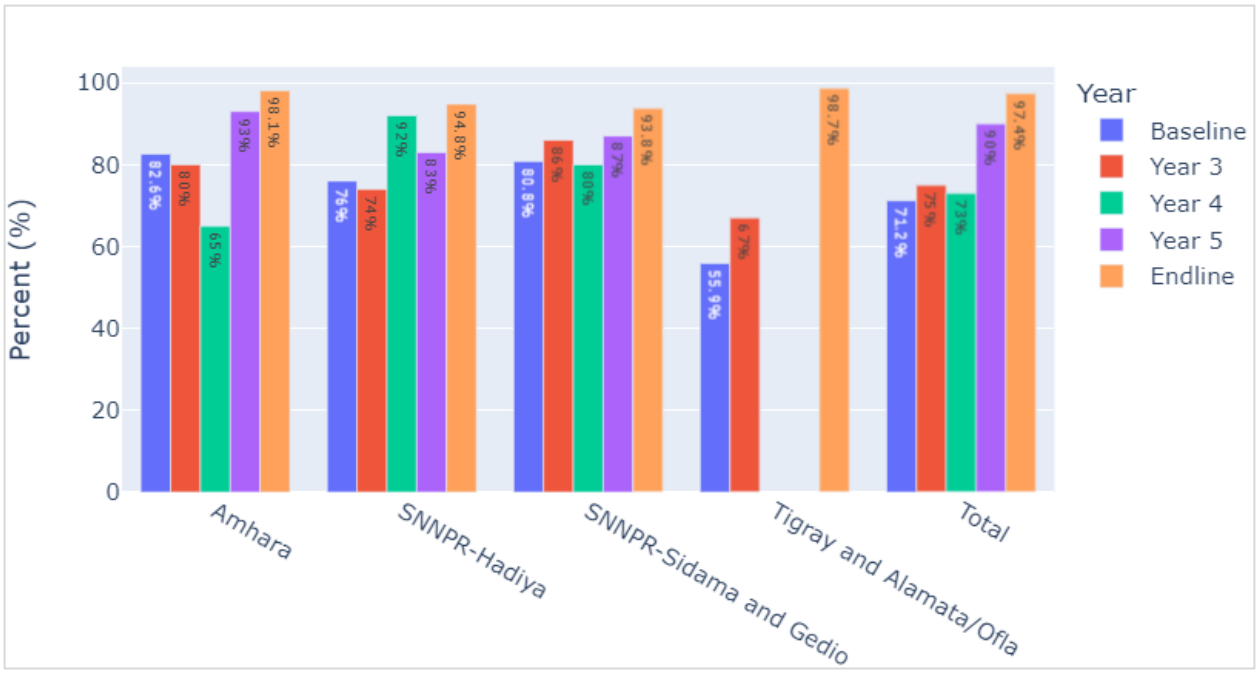
5.1.1. Exposure to Shocks and Capacity to Recover

Exposure to shocks is an assessment that measures the number of shocks households were exposed to over the last 12 months, the extent to which these shocks affected households' wellbeing, and households' perceptions regarding their capacity to recover from the shocks they experienced.

5.1.1.1. Exposure to Shocks and Capacity to Recover: Cross-sectional Trend

Households in all regions experienced increased numbers of shocks over the life of the project. At endline, 100% of households reported having experienced at least one shock in the past year, up from 93% at baseline. Similarly, 97.4% of households reported having experienced at least two shocks in the last year, up from 71.2% of households at baseline.

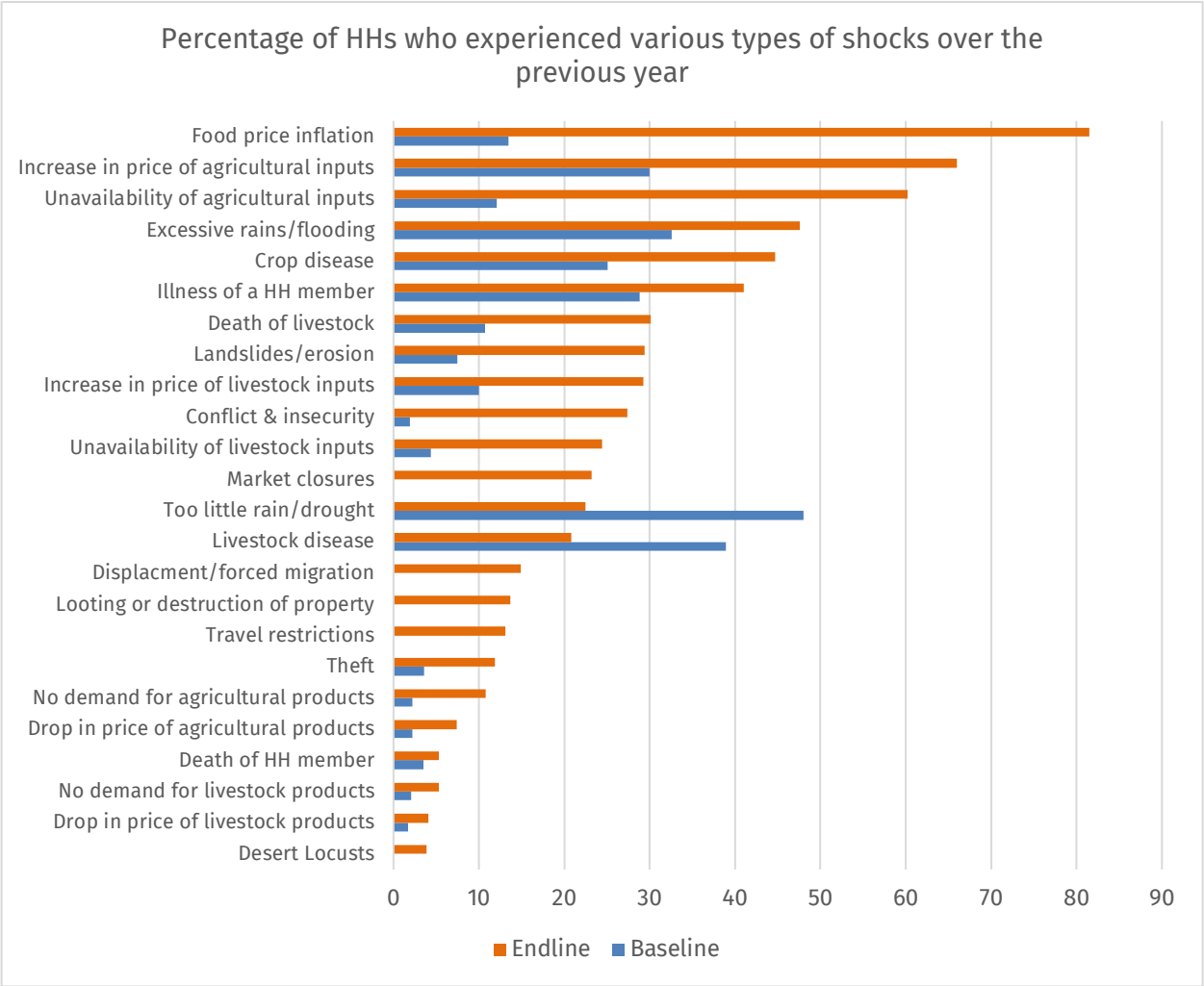
Figure 1: Percentages of households who experienced multiple shocks in the last year



Analyzing household exposure to various types of shocks over the project's duration reveals a significant increase in shock exposure. Of the 19 types of shocks that the project tracked from baseline to endline, exposure to 17 of the shocks increased more than 40% over the life of the project. In particular, households' exposure to conflict and insecurity, food price inflation, agricultural input unavailability and input price inflation, and livestock death increased significantly from baseline to endline, while the percentage of households experiencing drought and insufficient rainfall, or livestock disease, decreased.

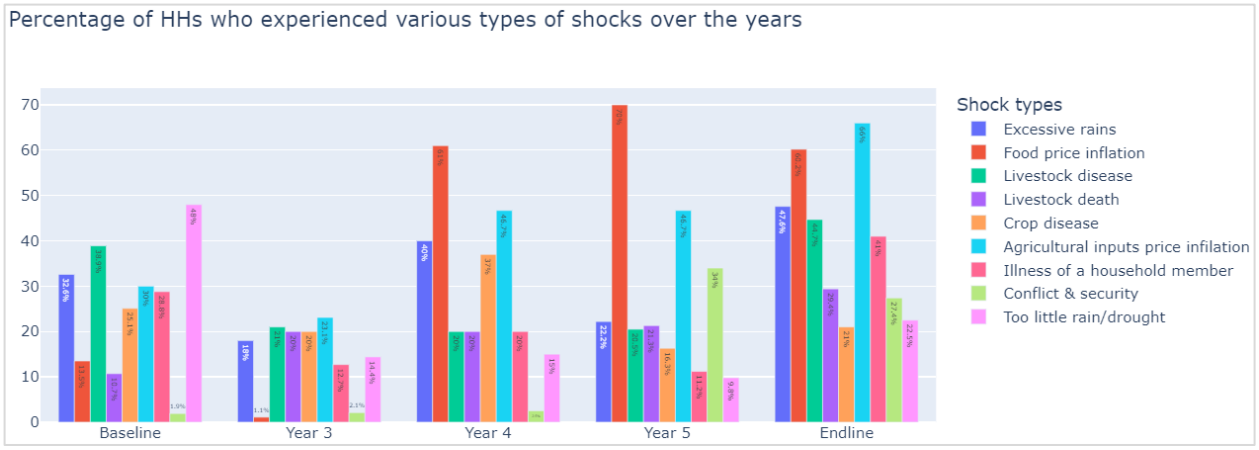
The below graph presents the baseline and endline shock exposure, which shows a doubling of the number of shocks experienced by 30% of households or more (3 shocks at baseline, 6 at endline). Overall, on average there was a 250% increase in the reported exposure to various measured shocks.

Figure 2: Percentage of HHs who experienced various types of shocks over the previous year



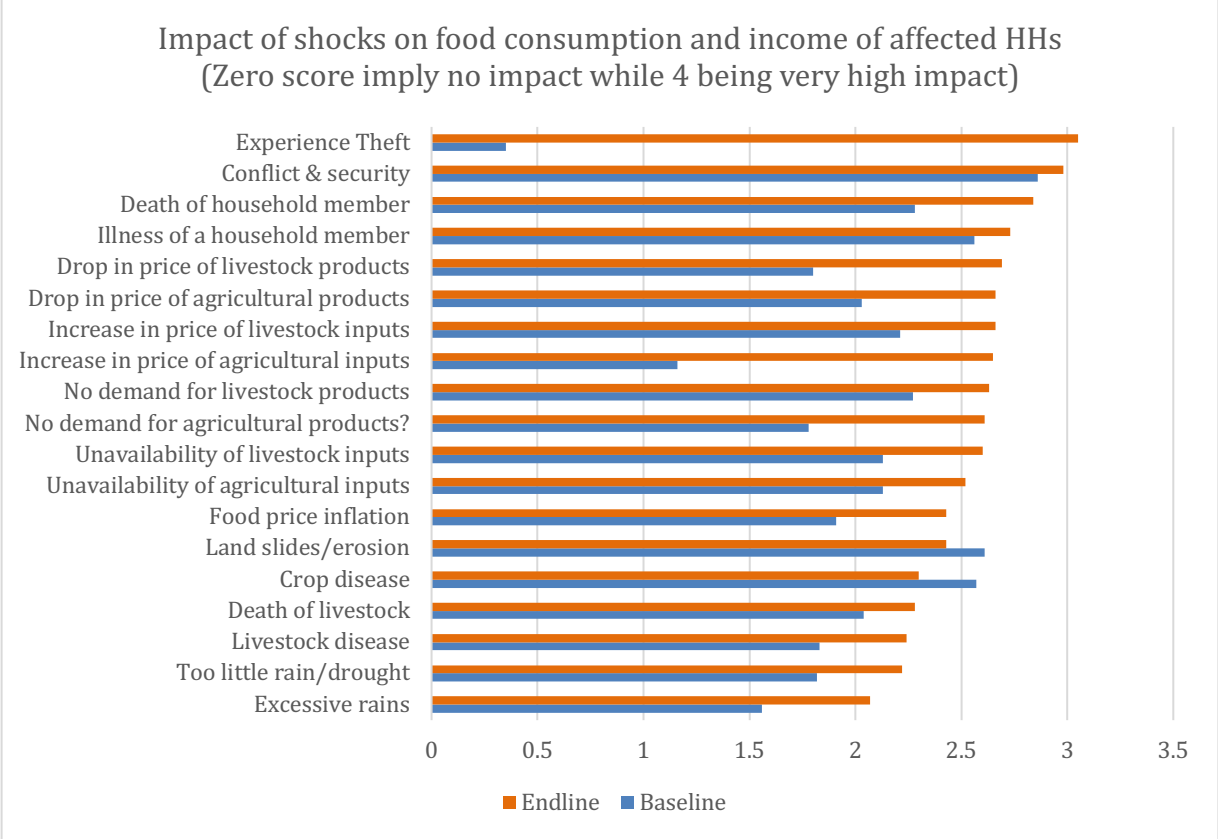
The below graph presents the trend in some of the more prevalent shocks. Inflation took prominence starting in year 4, impacting both food prices and input prices, and constituting a shock for the majority of households. Conflict and insecurity increased significantly in year 5, even though the year 5 data didn't include Tigray, where conflict was most prominent at that time. Too little rain was broadly experienced at baseline but reduced over time.

Figure 3: Percentage of HHs who experienced various types of shocks over the years



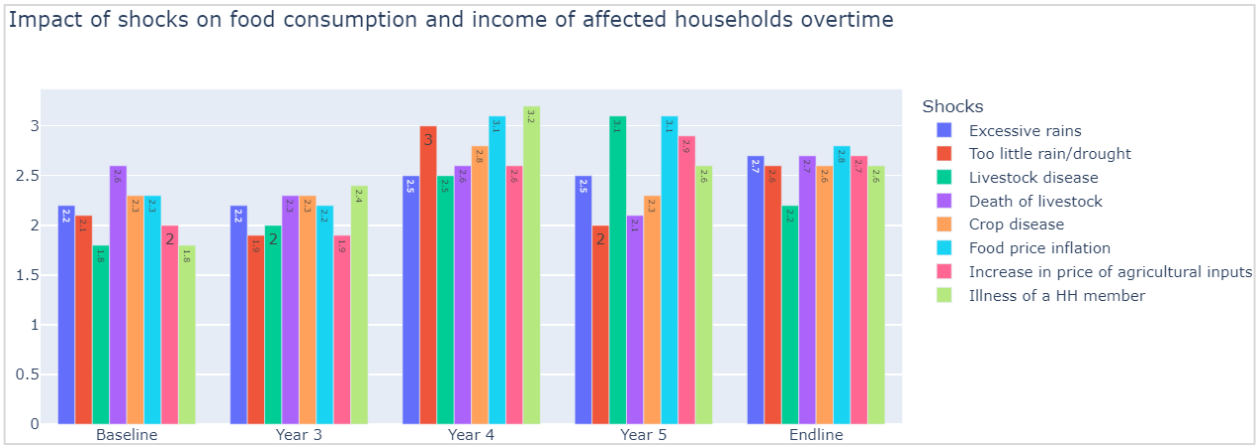
The below graph presents the impact that various shocks have had on households' food consumption and income, as rated by households on a scale from a (no impact) to 4 (very high impact). The impact of shocks on food consumption and income has increased 65% on average from baseline to endline.

Figure 4: Impact of shocks on food consumption and income of affected HHs



The graph below presents the annual variation in the impact of shocks on food consumption and income over the life of the project. The most marked increase occurred between year 3 and year 4, with levels remaining elevated since then.

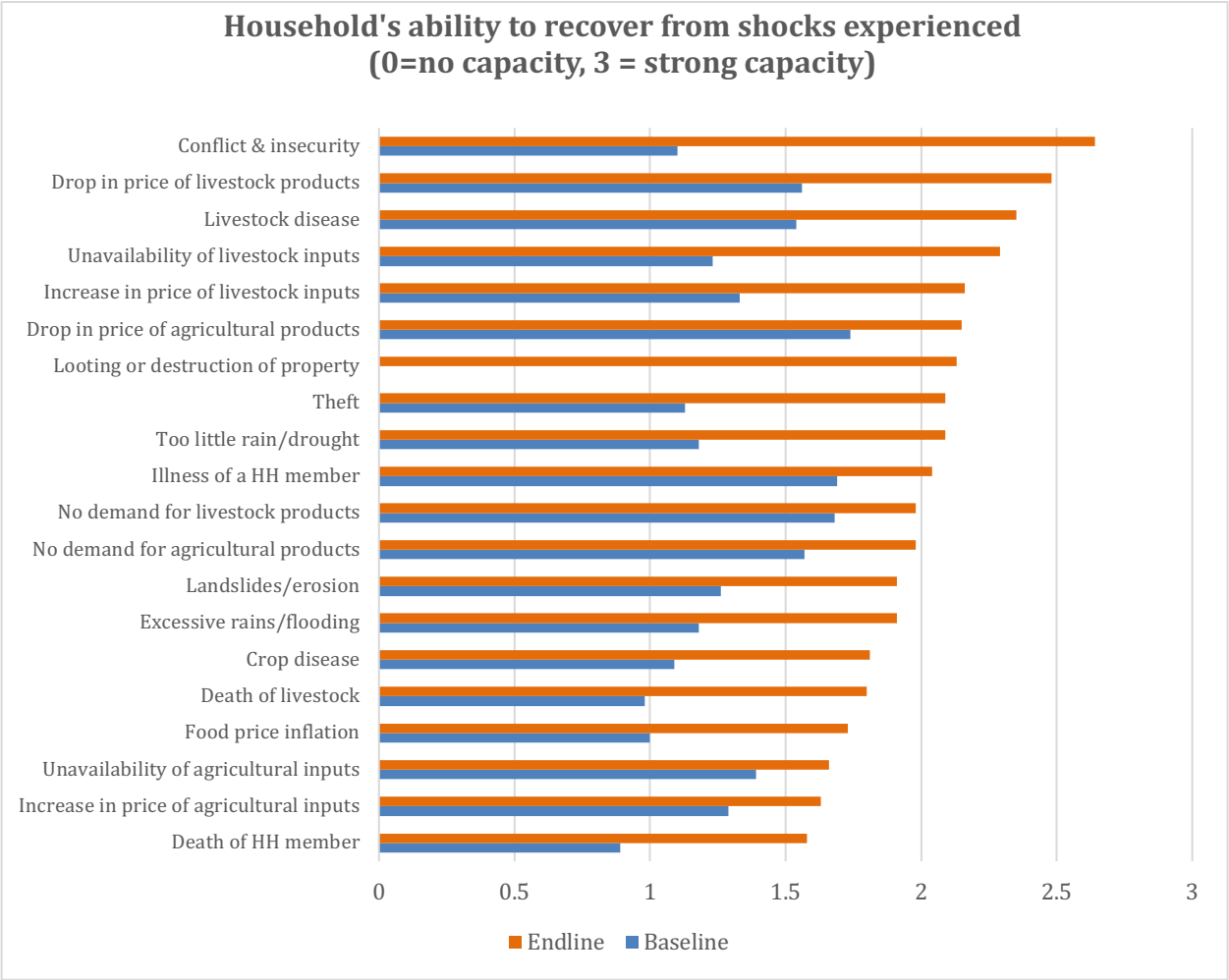
Figure 5: Impact of various types of shock on food consumption and income over the years (mean of scores on a scale of 0 to 4 levels. Zero score imply no impact while 4 being very high impact)



Despite an increase in shock exposure, and an increase in the impact shocks had on income and food consumption, households' reported capacity to recover from shocks[2] improved across all types of shocks between baseline to endline. On average, there was a 58% increase in households confidence to recover across the various types of shocks, with the largest increase being in confidence to recover from conflict and insecurity (140%), likely influenced by the cessation of fighting in Tigray and Amhara regions. Female headed households experienced a more dramatic increase in their recilience capacity (88%) than male headed households (48%) from baseline to endline.

Figure 6: Household's ability to recover from shocks experienced (0=no capacity, 3 = strong capacity)

[2] Household capacity to recover from shocks indicator utilizes mean of scores on a scale of 0 to 3. Zero scores implies no capacity while a score of 3 implies strong capacity to recover.



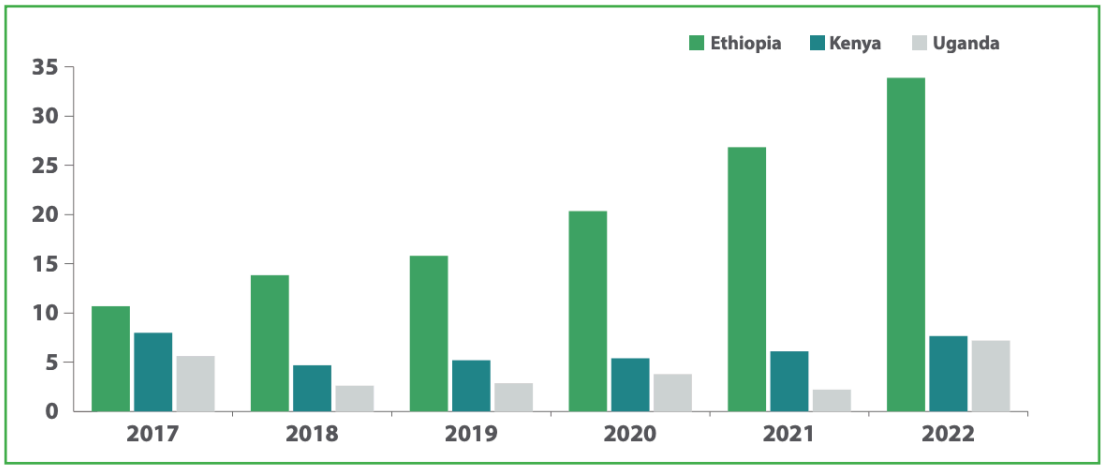
5.2.Household Wellbeing

The asset, income, savings and loans calculations reported in this endline report have been adjusted for inflation in order to make all years comparable with baseline. Since baseline, Ethiopia has experienced climbing inflation rates, as shown in the graph below.

Figure 7: Inflation rate % in Ethiopia and East African countries[3]

[3] Source: https://www.undp.org/sites/g/files/zskgke326/files/2023-03/UNDP%20Quarterly%20Economic%20Profile%20March%202023.pdf

Figure 3: Inflation Rate (%) in Ethiopia and East African countries



Source: *Constructed based on data from IMF, World Economic Outlook, October 2022*

Inflation adjustment was done by collecting the Consumer Price Index (CPI) of the last 12 months prior to the data collection period for each year from 2017 to 2023. The CPI is a measure of the change in prices of goods and services over time. To adjust for inflation, baseline figures were taken as a base comparison for the following years. This calculation produces the adjusted income, asset, savings, and loan values, which is the amount of income and asset values that would have been equivalent to purchasing power in Baseline (2017).

Table 8. Inflation adjustments approach – average consumer price index and multiplication factor for each survey round

	Baseline	**Year 3**	**Year 4**	**Year 5**	**Endline**
Survey time	Oct - Nov 2017	Nov & Dec 2019	Dec - Jan 2020	Jan - Mar 2022	Jun-23
CPI in month of	Oct 2016 - Sep 2017	Nov 2018 - Oct 2019	Dec 2019 - Nov 2020	Jan 2021 - Dec 2021	Jun 2022 - May 2023
Avg. CPI	105.3	139.6	171.1	219.6	330.4
Multiplication Factor		0.75	0.62	0.48	0.32

The effect of the inflation adjustment is that at endline, the "real" (inflation-adjusted) Ethiopian Birr values presented in this report in all trend graphs are 32% of the nominal endline values.

5.2.1. Household Assets

5.2.1.1. Household Asset: Cross-sectional Analysis

The overall trend over time for the analyzed regions demonstrates a significant increase in real (inflation-adjusted) asset values at the Endline compared to baseline, with SNNPR-Hadiya showing the highest percentage increase. Livestock assets consistently contributed significantly to the overall asset value.

At endline, L4R households owned assets valued at 42,461 ETB on average in nominal terms. Overall, asset values increased by 43% in real terms (inflation-adjusted) over the project's duration. This upward trend was observed across all regions.

In Tigray, which had the highest asset values for all periods where data was collected in the region (baseline, year 3 and endline), the value of assets owned increased from baseline to Year 3, then decreased slightly by endline, though they remained higher than baseline. Overall, real asset values in Tigray increased by 30% from baseline to endline.

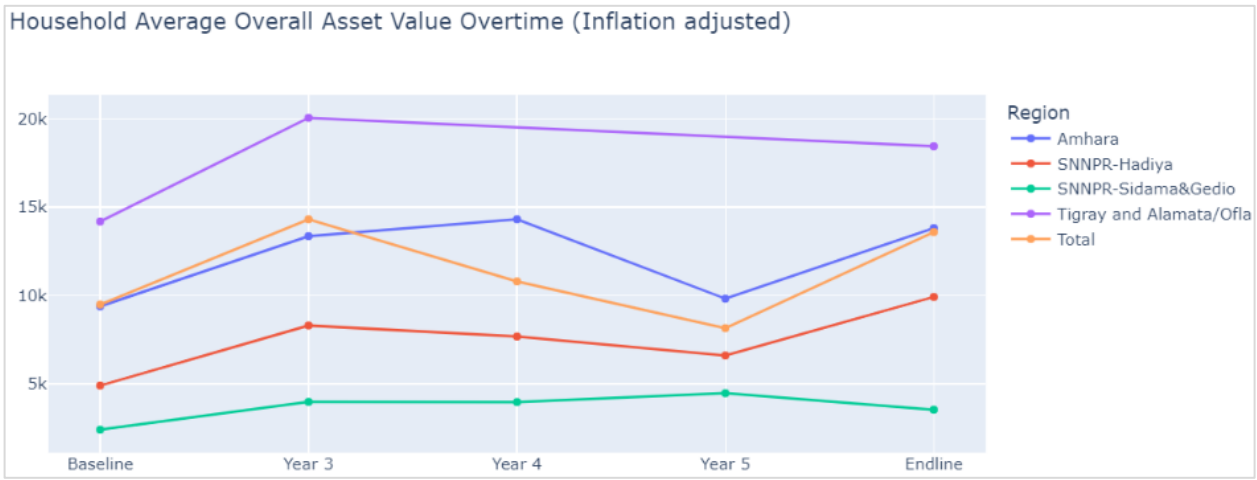
Amhara displayed steady growth in asset values over the observed years from baseline to Year 4, followed by a decline in Year 5 and an improvement at endline, with endline real asset values 47% higher than baseline in Amhara.

Asset values for L4R households in SNNPR-Hadiya were relatively low at baseline, but experienced the greatest increase between baseline and endline, with asset values ending 102% higher at endline than baseline in Hadiya.

In SNNPR-Sidama & Gedio, the overall real asset value increased by 47% from baseline to endline.

Female-headed households' assets were significantly lower than those of male-headed households throughout the project but increased far more rapidly—female-headed households' assets grew by 54%, while those of male-headed households grew by only 35%.

Figure 8: Household's average overall asset value over time (Inflation adjusted) (ETB)



Livestock assets

Livestock assets constituted 76-79% of asset values owned by L4R households every year, representing the importance of livestock ownership in overall household wealth.

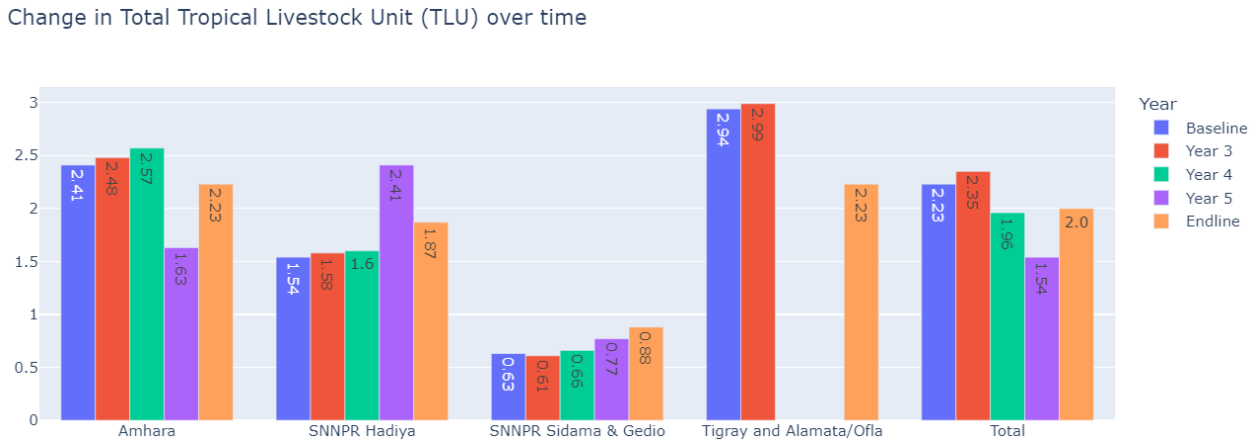
Because the value of livestock assets owned fluctuates based not only on the number of livestock assets but also on the market price of livestock assets, it is useful to analyze trends livestock

ownership in livestock ownership in Tropical Livestock Units (TLUs) as well. Tropical livestock units are livestock numbers converted to a common unit, with large ruminants averaging around 1 TLU and small ruminants averaging around 0.1 TLU.

The northern Ethiopia conflict had a negative impact on TLUs, which dragged down the overall performance – there was a 10% reduction in the average TLU per household between baseline and endline (from 2.23 TLU at baseline to 2 TLU at endline). In analyzing the TLU data across regions from baseline to endline, Tigray and Alamata/Ofla consistently had the highest TLU values, starting at 2.94 at baseline and increasing to 2.99, before dropping precipitously to 2.23 at endline – this reflects a 24% reduction on TLU per household from baseline to endline. Amhara experienced a steady increase in TLU from 2.41 at Baseline to 2.57 at Year4, dropping to 1.63 in year 5 (at the peak of the conflict in Amhara) before settling at 2.23 at endline – 7% lower than baseline.

Conversely, in implementation areas not affected by the northern conflict, there were significant increases in TLUs from baseline to endline, which drove up asset values in these areas. SNNPR-Hadiya witnessed a substantial rise in TLU, starting at 1.54 at Baseline, reaching 2.41 at Year 5, and ending at 1.87 – a 21% increase from baseline. In Sidama and Gedio there was even greater TLU growth, starting at 0.63 at Baseline, dipping to 0.61 at Year 3, and then rising to 0.88 at endline – 40% higher than baseline. While the TLU values in Sidama, Gedio and Hadiya were lower than Tigray and Amhara throughout the project, their growth in TLU over the life of the project was substantial.

Figure 9: Change in Total Tropical Livestock Unit (TLU) Over time

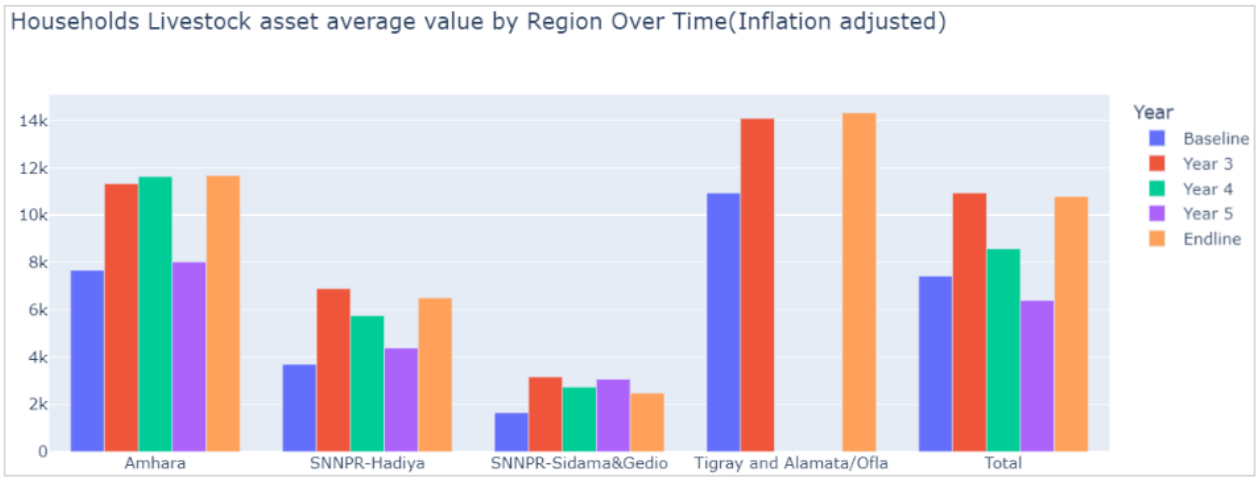


At endline, the value of L4R households' livestock ownership was ETB 33,743 (nominal value). In real (inflation-adjusted) terms, the value of livestock owned by L4R households increased by 45% over the life of the project, despite average TLUs declining by 10%. This reflects substantial increases in the market price of livestock (which is the basis for calculating livestock value).

Throughout the project, there were significant variations in livestock asset values between regions. Tigray and Alamata/Ofla consistently reported the highest value of livestock per household (which

aligns with also having the highest TLUs). SNNPR-Hadiya reported the greatest increase in livestock value, increasing 76% from baseline to endline. All regions reported significant increases between baseline and Year 3.

Figure 10: Household livestock asset average value overtime (Inflation adjusted) (ETB)

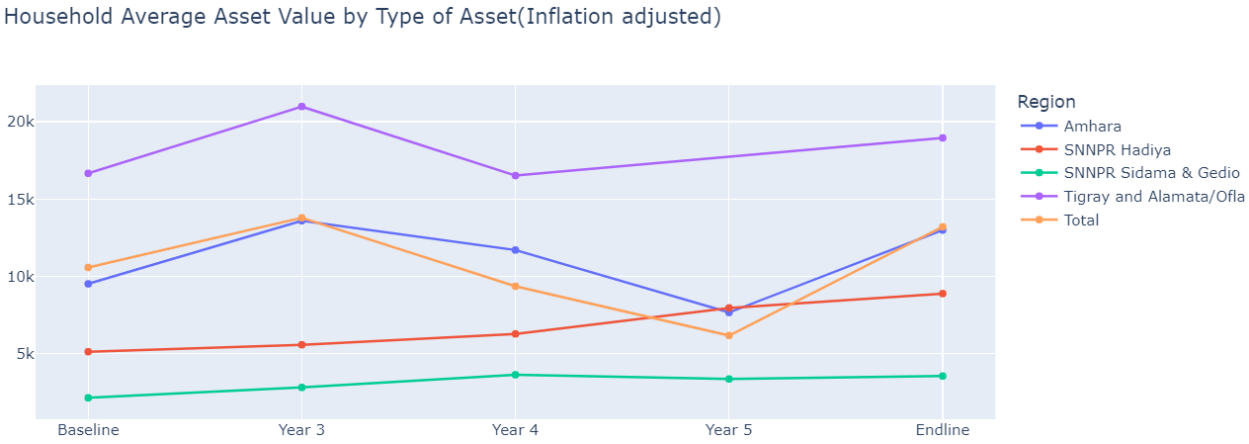


5.2.1.2. Household Asset Ownership: Panel Analysis

Panel data show a more moderate increase in the value of assets owned compared to the cross-sectional data, with a 25% increase in asset values (compared to 43% for the cross-sectional) from baseline to endline.

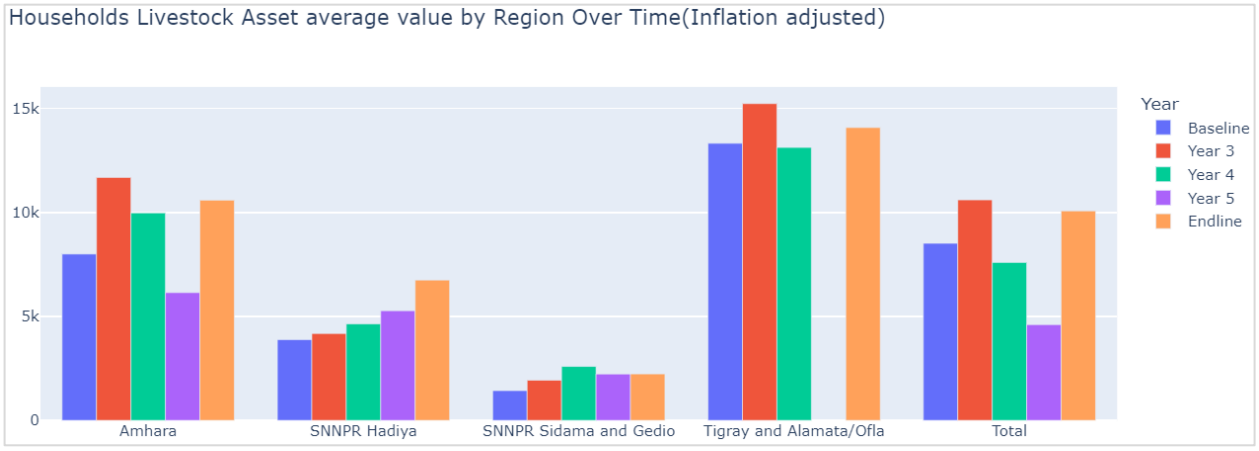
The graph below shows trends in values of assets owned by type across the years. Tigray and Alamata/Ofla data are limited in Year 4 and missing in Year 5, driving down the averages in those years (as the region's asset values are higher than other regions).

Figure 11: Panel households' average overall asset value by region (Inflation adjusted)



The average value of livestock assets increased at a slower rate for panel households (18%) than for households reached through the cross-sectional survey (45%), due largely to higher asset values at baseline for panel households.

Figure 12: Panel households' livestock asset average value in ETB by region overtime (Inflation adjusted)

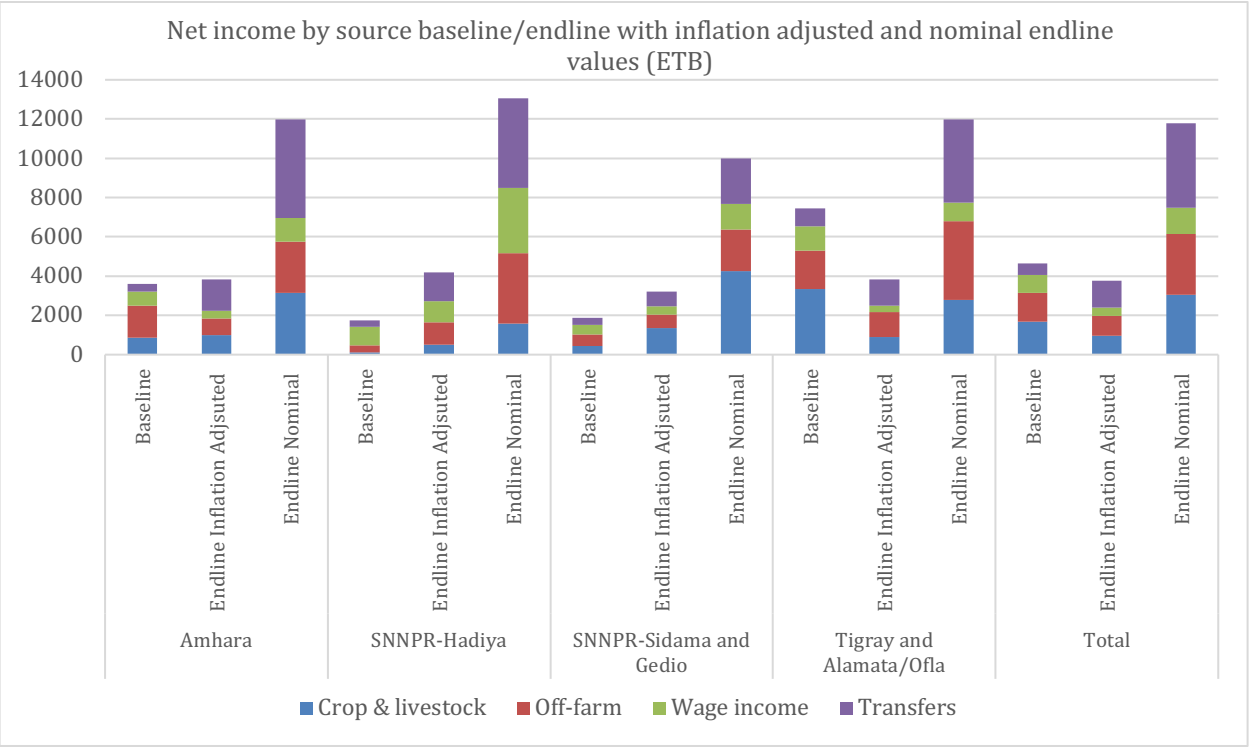


5.2.2. Household Income

5.2.2.1. Household Income: Cross-sectional Analysis

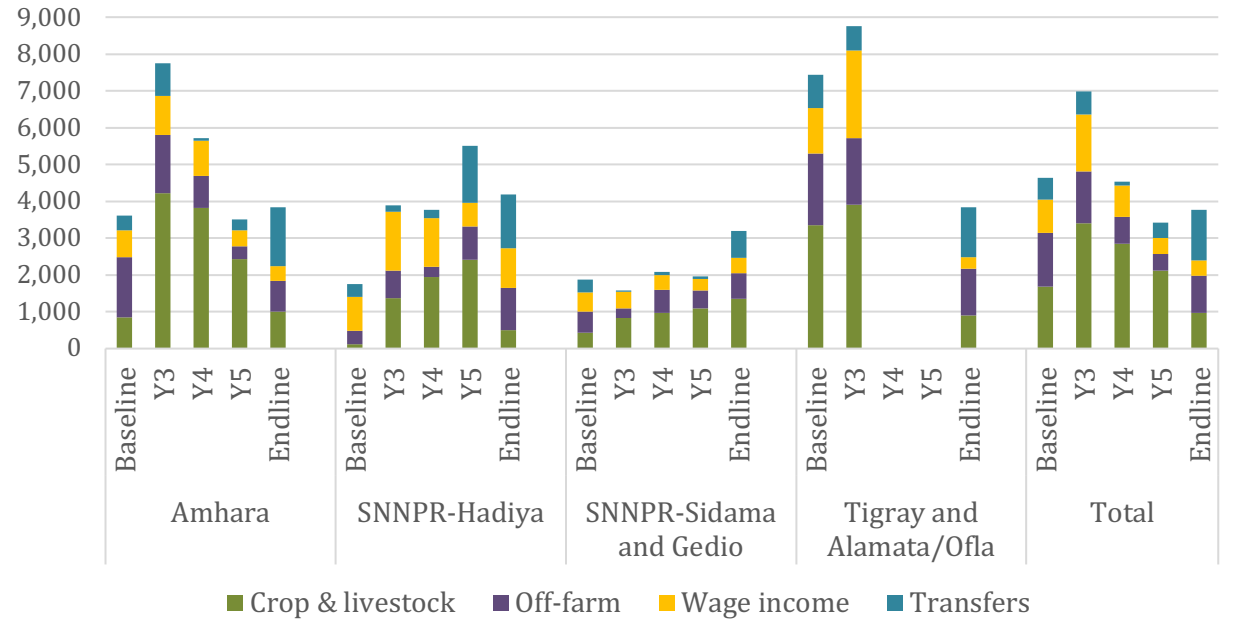
L4R households' average net income (after deduction of business expenses) at endline was ETB 11,787 (nominal), up from ETB 4,634 at baseline (nominal) – a 2.5-fold increase in nominal values. In real (inflation-adjusted) terms however, there was a 19% decline in real incomes over the life of the project. This decline was driven by an increase in input/business expenses across regions, by the skyrocketing inflation which eroded the gains in nominal income, and by a sharp decline in net incomes (48%) in Tigray. All regions other than Tigray experienced increases in average real net income from baseline to endline, with the highest increase being reported for SNNPR-Hadiya (138%), followed by SNNPR-Sidama & Gedio (71%), and Amhara reporting a small increase at 6%. The graph below shows the baseline/endline comparison of net income, presenting both the inflation-adjusted endline values, as well as the nominal endline values, which clearly depicts the impact of inflation on real incomes.

Figure 13. Net income baseline/endline with inflation adjusted and nominal endline (ETB)



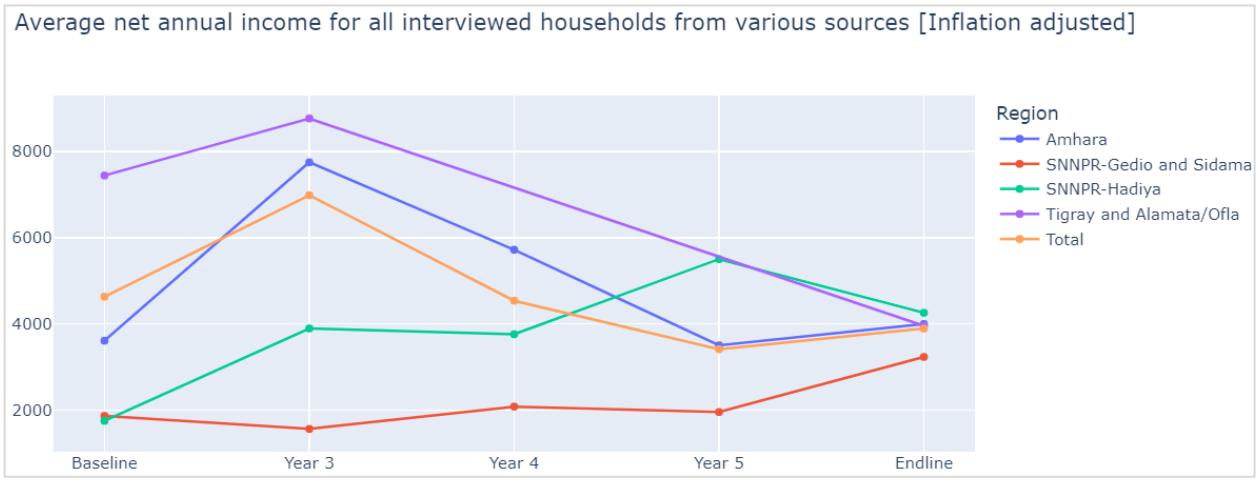
The dataset categorizes income into four primary sources: Crop & Livestock Production, Off-farm, Wage Employment, and Transfers/Other. Each of these sources exhibits variations in income levels over time.

Figure 14: Net Incomes in ETB by region, adjusted for inflation



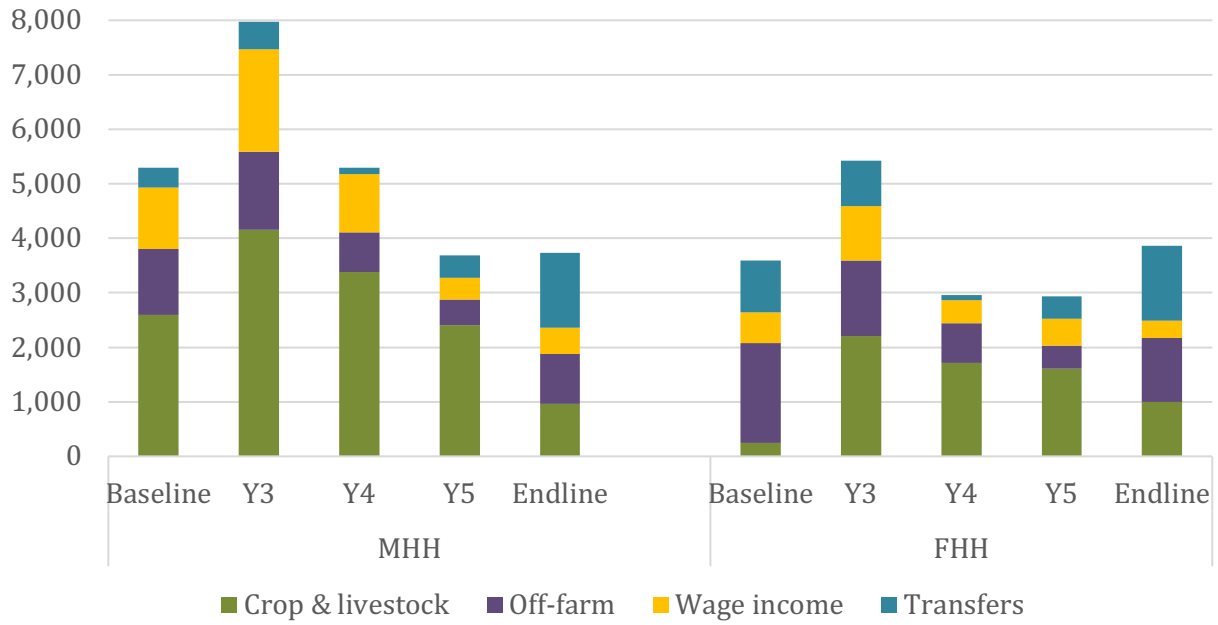
At baseline, there were significant differences in income levels across regions; the gap between regions was much smaller at endline due to the significant decline in incomes in Tigray and the significant improvements in SNNPR-Hadiya and SNNPR-Sidama & Gedio in particular. Notably, L4R households in Hadiya had the lowest net incomes of any region at baseline and the highest net incomes of any region at endline.

Figure 15: Trend in household average net income over time by region (Inflation adjusted)



At baseline, female-headed households' incomes were only 68% of their male-headed counterparts' incomes. This is unsurprising, as female-headed households are likely to have only one adult income earner, while many male-headed households are likely to have two. Over time, however, female-headed households saw their real incomes grow, while those of male-headed households declined. In fact, at endline, FHH had higher net income than MHH (12,082 ETB and 11,653 ETB respectively (nominal)) While male-headed households' real net incomes decreased by 30% over the project period, the incomes of female-headed households *increased* by 8% in real terms. At endline, female-headed households' incomes were 104% those of male-headed households.

Figure 16: Net Incomes in ETB by sex of household head, adjusted for inflation



Crop and Livestock Income: Unadjusted net incomes from crop and livestock production (with input expenses and other production costs subtracted) were ETB 3,044 at endline, up from ETB 1,683 at baseline – nearly a 2-fold increase. When adjusted for inflation however, there was a 42% decrease in real net incomes from crop and livestock over the life of the project. As with overall income, the decrease in crop and livestock incomes was driven by a severe decline in income for households in Tigray, which saw a 73% decrease in real net incomes from crop and livestock between baseline and endline. Similar to the trend in net income, all other regions saw significant increases in real crop and livestock incomes, ranging from 19% in Amhara to 215% in SNNPR-Sidama and Gedio and 310% in SNNPR-Hadiya (note that Hadiya's baseline was extremely low). Net, inflation-adjusted incomes from crop and livestock had increased significantly from baseline to Year 3 across all regions, before the onset of COVID-19 and conflict. Crop and livestock income continued to increase in SNNPR-Hadiya and SNNPR-Sidama and Gedeo through Year 5, but began declining in Amhara beginning in Year 4. Only SNNPR-Sidama and Gedio saw a steady increase in inflation-adjusted net incomes from crop and livestock every year from baseline to endline.

Net incomes from crop and livestock represented 36% of total household net incomes at baseline, rising to 62% in Year 5 before dropping to 26% at endline.[4] At endline in SNNPR-Sidama and

[4] It should be noted that the endline survey was conducted at a different time of year than other surveys, and much more time had passed between the harvest period and the survey. Therefore, households' recollections of crop and livestock income (crop income in particular) may be less accurate. Alternatively, the lower net income from crop and livestock may have been due to the exceptionally high cost of inputs in 2022, due to local inflation and the global economic crisis caused by the Ukraine conflict.

Gedio, crop and livestock incomes represented 42% of overall net incomes for households, the highest of any region.

Off-farm Income: Net income from off-farm accounted for 31% of total household net incomes at baseline, and 26% of total income at endline. The inflation-adjusted value of off-farm incomes stayed constant through Year 3, but its percentage contribution to overall incomes dropped in relative terms as households reported significant increases in crop and livestock and wage employment incomes. At endline, households reported 26% of their net incomes coming from off-farm sources. SNNPR-Hadiya saw a particularly impressive rise in incomes from off-farm over the life of the project, from ETB 353 at baseline to ETB 3,578 at endline in nominal terms – a 10-fold increase. When adjusted for inflation, this still represents a 224% increase in real net income from off-farm sources. In Amhara, real (inflation-adjusted) incomes from off-farm stayed stable from baseline to Year 3, then declined significantly in years 4 and 5, before increasing again at endline. At endline, Tigray reported the highest contribution of off-farm net incomes to overall net incomes, at 33%.

Wage Employment: The contribution of wage employment to household net income decreased from baseline (20%) to endline (11%), after an increase in Year 3. The overall decrease is driven by a decline in incomes from wage employment in Tigray, Amhara and SNNPR-Sidama and Gedeo. Only in Hadiya did households see an increase in incomes from wage employment (ETB 3,353 in nominal terms at endline, up from ETB 927 at baseline—an increase of 16% when adjusted for inflation). At endline, households in Hadiya had the highest proportion of net income (26%) coming from wage employment, compared to other regions.

Transfer and other income: Income from transfers and other sources (cash transfers/gifts from relatives, community organizations, and NGO projects, but not including L4R) increased significantly across all regions from baseline to endline, and accounted for 36% of total net incomes at endline. L4R cash-transfers implemented during the final year were excluded from the analysis to make the data comparable with prior years.

Number of income sources: The total average number of income sources per household was assessed, as it is an important indicator for the level of income diversification by households. The analysis revealed that **the average number of income sources per household rose to 1.7 income sources at endline**, up from 1.5 sources at baseline**. This data shows that, on average, households diversified their sources of income,** indicating a positive trend towards enhanced income diversification during the project period. Male-headed households had slightly more income sources than FHH from baseline through year 5, but at endline MHH and FHH had the same number of income sources. Households in Tigray had on average the most income sources at baseline and endline.

Table 9: Average number of income source of households

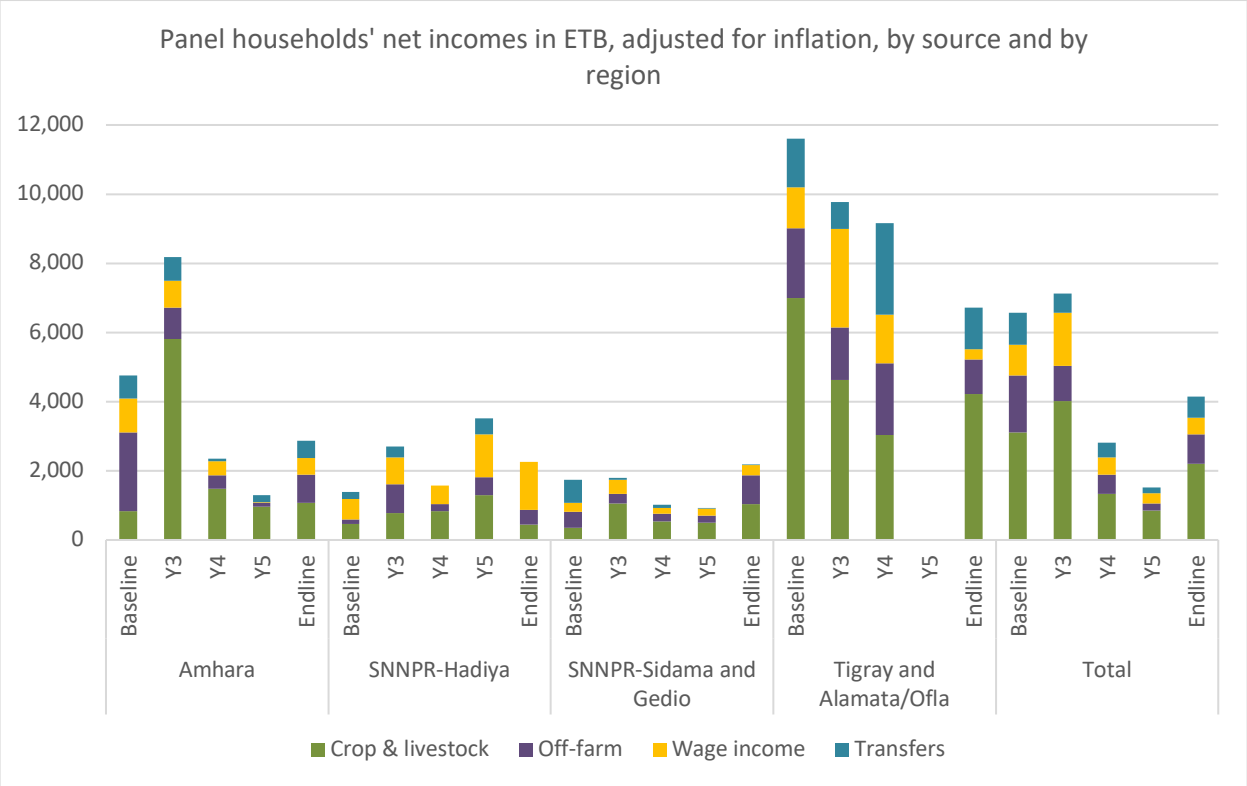
Average number of income source of households	Tigray	Amhara	SNNPR-Hadiya	SNNPR-Hadiya and Gedio	MHH	FHH	Total

Baseline	2.2	1.1	1.0	1.0	1.6	1.5	1.5
Year3	2.0	2.0	1.3	1.2	1.9	1.7	1.8
Year4		1.4	1.8	1.7	1.6	1.5	1.6
Year5		1.4	2.2	1.3	1.5	1.4	1.5
Endline	1.9	1.7	1.7	1.5	1.7	1.7	1.7

5.2.2.2. Household Income: Panel Analysis

Panel households' average net income (after deduction of business expenses) at endline was similar to those of cross-sectional households - ETB 12,984 for panel households, compared to ETB 11,787 for households in the cross-sectional sample (nominal), **but there were significant differences in trends for the two sets of households**, as outlined below.

Figure 17: Household average net income in ETB for panel households by region [Inflation adjusted]



The baseline net income for panel households was significantly higher than for households in the cross-sectional sample (ETB 6,565 average net incomes at baseline for panel households, compared to ETB 4,634 for households in the cross-sectional sample); therefore, although endline totals were similar, panel households experienced a smaller increase in nominal net incomes, and a more significant decrease (37%) in real (inflation-adjusted) net incomes. As with the cross-sectional data, the decline was driven largely by decreases in real net incomes in Tigray, but panel households in Amhara also experienced a decrease in real net incomes (contrary to households in

the cross-sectional survey). While the cross-sectional data showed Hadiya as having the highest net inflation-adjusted income at endline, the panel shows Tigray and Alamata/Ofla as having the highest net income at endline.

At endline, panel households report a significantly higher proportion of their income from crop and livestock, and a significantly lower proportion of their income from wage employment and transfers than households in the cross-sectional sample.

The panel survey collected data from Tigray and Alamata/Ofla in Year 4 (this area was missing from the cross-sectional data), revealing a decline in incomes from crop and livestock and wage employment, and an increase in incomes from off-farm and transfers during that period.

At endline, 52% of households were earning income from on-farm, 38% from off-farm, 16% from wage employment, and 58% from transfers – there were increases in the percentage of households earning income from off-farm and transfers (significant increase), while there was a decrease in households earning income from on-farm and wage employment. The sharp increase in households earning transfer income at endline was driven largely by Amhara and Tigray, Alamata/Ofla, and likely is related to increased support from relatives to households impacted by the conflict.

5.3.Household Livelihood Activities

5.3.1. Crop and Livestock Activity

5.3.1.1. Crop and Livestock Activity: Cross-sectional Analysis

After an initial increase in the percentage of households engaged in at least one Value Chain (VC) and earning income from it from 49.5% at baseline to 71.0% in Year 3, this figure decreased to 45.9% by the endline. However, the **percentage of households engaged in two or more prioritized VC and earning income from them increased from 38% at baseline increased slightly, to 40% by the endline.** There was an increase in the proportion of households engaged in 2 or more prioritized livelihoods from baseline to endline in all regions except Tigray.

Male-headed households reported slight increases in engagement in and income from two or more value chains (34% to 40%), while female-headed households showed relatively little change, remaining at 40% at baseline and endline.

In the Tigray and Alamata/Ofla region, VC engagement started strong, with 74.1% of households participating in one or more value chains at the baseline and declining to 56.5% at the endline. Engagement in 2 or more VC also declined in Tigray, from 60% at baseline to 52% at endline.

Amhara began with lower VC engagement at 36.5% of households reporting engagement in one or more value chain at baseline. Amhara then experienced substantial growth, reaching 69.0% in Year 3, then declining in years 4 and 5, increasing to 43.5% at endline – a 19% increase from baseline. The percentage of Amhara households engaging in two or more value chains increased from 22% at baseline to 36% at endline – a 61% increase.

SNNP-Hadiya, starting with modest VC engagement at 26.9% in the baseline, and witnessed a significant surge to 54.0% in Year 3, and at endline, only 20.8% of Hadiya households engaged in at least one VC. However, this is because engagement in two or more value chains increased from 12% at baseline to 18% at endline – a 54% increase in households engaged in 2 or more VCs.

Lastly, SNNPR Sidama & Gedio initiated VC activities with moderate engagement at 31.9% at the, increasing to 41.9% of households engaged in at least one VC at endline. Households engaged in two or more value chains also increased, though more modestly, from 32% to 34% at endline.

Figure 18: Percentage of households who engaged in and earned income from at least one prioritized value chain activity

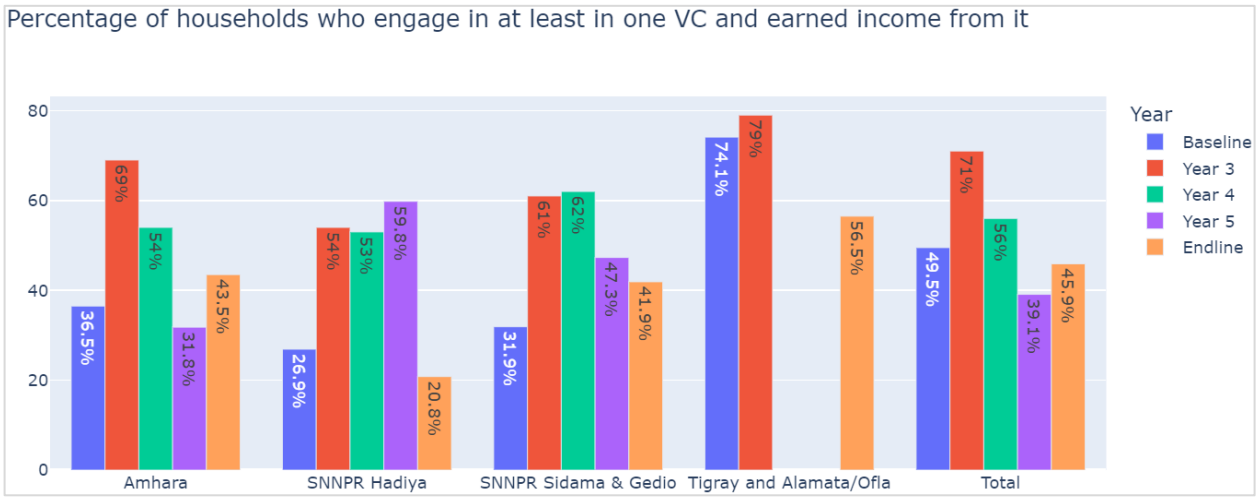
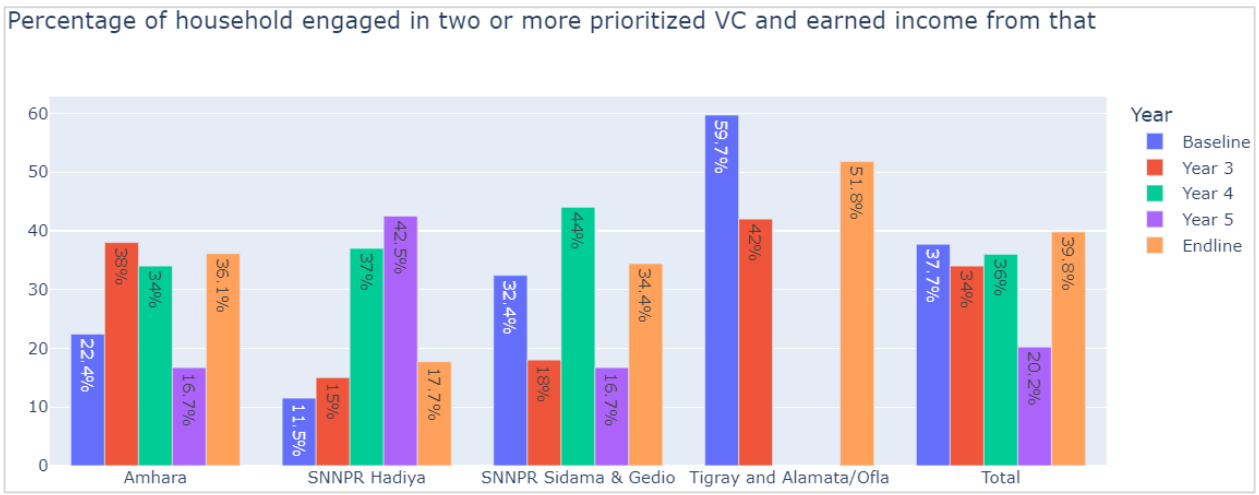


Figure 19: Percentage of households who engaged in and earned income from two or more prioritized value chain activities



Engagement in prioritized value chains: Regarding engagement in specific prioritized value chains, there were **increases** in the proportion of project households who engaged in cattle

fattening (30% increase), goat fattening (74% increase), poultry (1% increase), lentil (31% increase), pepper (2% increase), onion (242% increase) and potato (79% increase). There was a **decrease** in the proportion of households engaged in sheep fattening (31% decrease), honey (19% decrease), and wheat (75% decrease).

Table 10: Percentage of households among total households who participated in various value chain types

VC Types	Baseline				Endline				Baseline/ Endline change (%)
	MHH	***FHH***	***Total***		***MHH***	***FHH***	***Total***		
	%	%	%	N	%	%	%	N	
Cattle fattening	10.3	5.3	8.4	1065	11.7	9.3	10.9	1072	30%
Sheep fattening	14.9	16.2	15.4	1065	9.9	12.3	10.6	1072	-31%
Goat Fattening	4	2.4	3.4	1065	6.2	5.1	5.9	1072	74%
Poultry (chickens)	11.8	13.1	12.3	1065	13	11.1	12.4	1072	1%
Poultry (egg)	17.2	13.1	15.6	1065	16	15	15.7	1072	1%
Honey	4.6	1	3.2	1065	3.4	0.9	2.6	1072	-19%
Wheat	31.6	26.4	29.6	1065	8.4	5.4	7.5	1072	-75%
Lentil	4	1.2	2.9	1065	4.7	1.8	3.8	1072	31%
Haricot bean	4.3	2.2	3.5	1065	3.7	3.3	3.5	1072	0%
Pepper	0.8	0.8	0.88	1065	0.9	0.9	0.9	1072	2%
Onion	1.4	1	1.2	1065	4.6	3	4.1	1072	242%
Potato	2.3	1.2	1.9	1065	3.5	3	3.4	1072	79%

Agriculture productivity: At the baseline, FHH had lower agricultural productivity in terms of the number of eggs produced per chicken, kg of honey per beehive, and yields of various crops like wheat, lentils, haricot beans, pepper, and potatoes when compared to MHH. The endline data provides a notable transformation. FHH have not only caught up with MHH but, in some cases, even exceeded productivity in MHH. For instance, FHH achieved higher honey production per beehive and, remarkably, surpassed MHH in terms of wheat yields per hectare at endline. This shift highlights the capacity of FHH to excel in agriculture when given the opportunity, support, and access to resources. It also suggests a narrowing gender gap.

In the case of wheat, for instance, MHH's average yield per hectare increased from 1.3 quintals to 1.84 quintals, while FHH's yield surged from 0.8 quintals to 5.14 quintals. The combined total yield demonstrated a remarkable overall increase. This trend was also observed in lentils, haricot beans, and pepper, demonstrating that the growth in agricultural productivity was not limited to a single crop.

Table 11: Household annual productivity from households who engaged in various VC by commodity

Prioritized VC	Unit of measurement	MHH	FHH	Total

		Mean	*N*	*Mean*	*N*	*Mean*	*N*
Baseline							
Poultry	# of egg per chicken	98.7	112	92.3	54	96.6	166
Honey	Kg per beehive	4.1	30	3.2	4	4.0	34
Wheat	Quintal per hectare	1.3	206	0.8	108	1.2	314
Lentil	Quintal per hectare	1.6	26	0.4	5	1.4	31
Haricot bean	Quintal per hectare	1.2	28	2.7	9	1.6	37
Pepper	Quintal per hectare	2.8	9	0.0	4	2.0	13
Onion	Quintal per hectare	7.5	15	10.1	5	8.1	20
Potato	Quintal per hectare	0.4	5	.	0	0.4	5
Endline							
Poultry	# of egg per chicken	130.14	118	128.52	50	129.66	168
Honey	Kg per beehive	4.14	25	5.33	3	4.26	28
Wheat	Quintal per hectare	1.84	62	5.14	18	2.58	80
Lentil	Quintal per hectare	5.74	35	2.37	6	5.25	41
Haricot bean	Quintal per hectare	2.05	27	1.86	11	2	38
Pepper	Quintal per hectare	24.01	7	5.1	3	18.34	10
Onion	Quintal per hectare	6.04	34	6.11	10	6.05	44
Potato	Quintal per hectare	4.57	26	6.15	10	5.01	36

5.3.1.2. Crop and Livestock Activity: Panel Analysis

Engagement in multiple value chains was promoted by the project as a way to diversify income sources and increase resilience to shocks. At baseline, 51% of panel households were engaged in one or more of the prioritized value chains, while 31% were engaged in two or more prioritized value chains. By endline, there was a 45% increase in panel households engaged in two or more prioritized value chains – a much larger increase than among cross-sectional households - while there was a slight decline (4%) in households engaged in one or more value chains. All regions except Tigray and Alamata/Ofla had significant increases in the percent of panel households engaged in two or more value chains by endline, ranging from a 154% increase (in Amhara) to a 238% increase (Sidama and Gedio). Tigray and Alamata/Ofla experienced a decline both in households engaged in one or more prioritized value chains (17% decline) and households engaged in two or more value chains (1% decline).

Figure 20: Percentage of panel households who engaged in one or more prioritized value chains

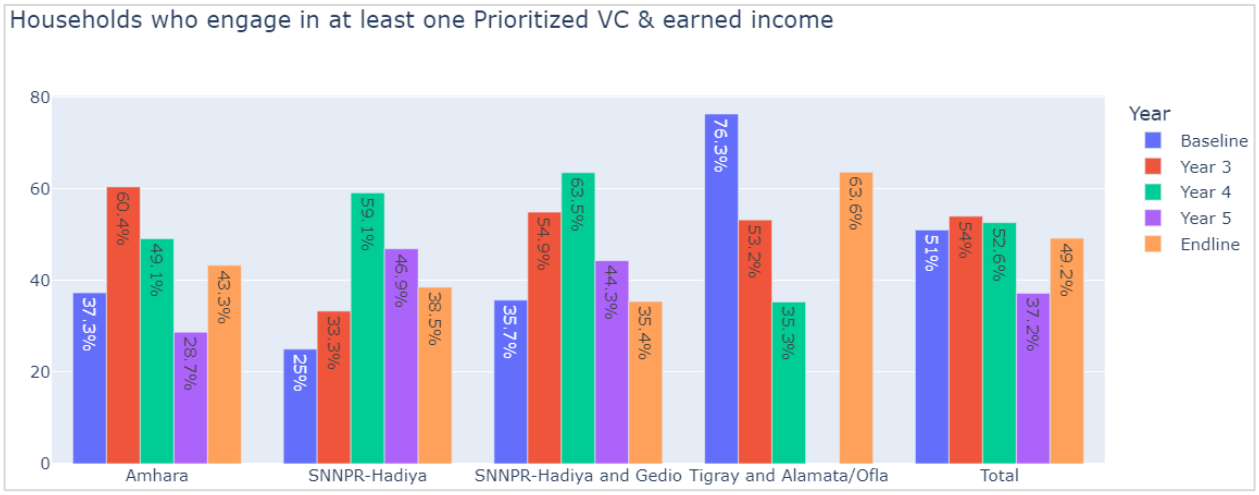
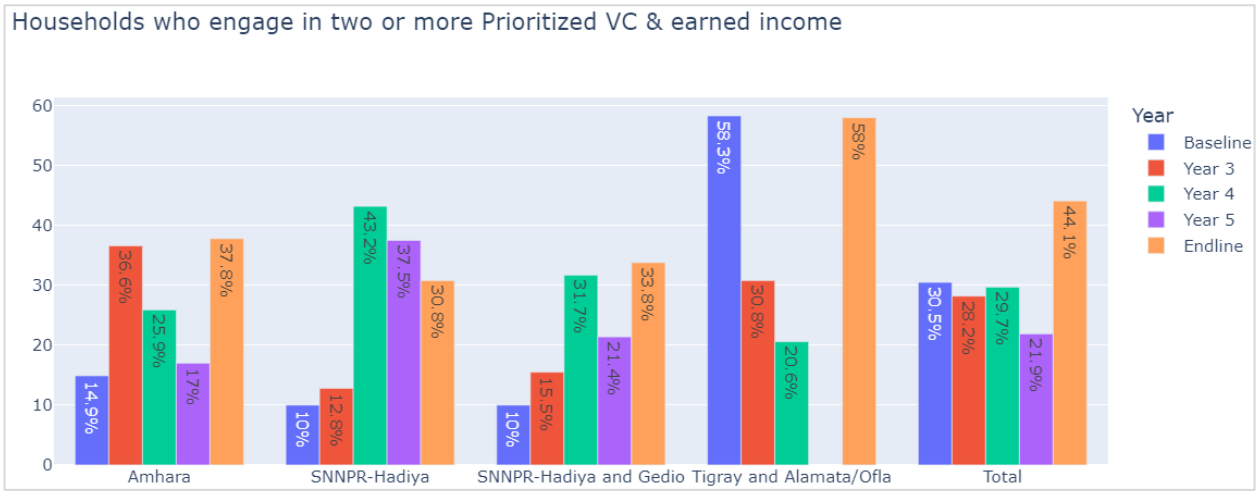


Figure 21: Percentage of panel households who engaged in two or more prioritized value chains



5.3.2. Improved Agricultural Practice: Cross-sectional Analysis

For each of the prioritized value chains in which households were engaged, the project provided trainings and technical support to households to improve their management practices. As the improved practices were defined after the baseline, there is no data available in the baseline survey regarding the adoption of improved practices. In Year 3, the majority of improved practices exhibited very high adoption rates, indicating the success of initial promotional efforts and the receptiveness of participating households. However, as we move into subsequent years, we observe fluctuations in adoption rates, and reductions in improved practices at endline, suggesting that maintaining consistent adoption is not without challenges. See annex for detailed results on Improved Agricultural Practices Table_A 4: Percentage of households who adopted various promoted improved practices.

5.3.3. *Input Access*

Over the years, the sources of agricultural inputs have varied. The baseline and year 3 data allowed for only one response for source of input per input type, while the years 4, 5 and endline data allowed for multiple responses. As a result, it is not possible to compare the trend data. However, the data does show a significant increase in the types of inputs that are accessed from agro-dealers at endline. At baseline, agro-dealers were primarily used to source concentrate feed and silage, with less than 5% of households sourcing other inputs from them. At endline, of the 14 inputs measured, there were 11 different inputs that between 12%-38% of households sourced from agro-dealers.

Government organizations and cooperatives/unions consistently played a significant role as suppliers of fertilizer and crop seeds. In contrast, the private sector emerged as the primary source for pesticides and herbicides. Notably, the private sector dominated the provision of vegetable seeds.

When it comes to concentrated livestock feed sources, there has been a noticeable shift, with cooperatives/unions becoming more prominent compared to self-production. The sources of veterinary drugs remained diverse, with significant contributions from both government organizations and the private sector.

Fertilizer sourcing has become much more diversified over time. At baseline, 53% of households who accessed fertilizer accessed from cooperatives and unions and 44% accessed from the government, while just 2.1% sources from agro-dealers or the private sector. At endline, 37% of households reported sourcing fertilizer from the private sector, 33% from government, 27% from cooperatives and unions, 14% from agro-dealers, and 5% from NGOs. This likely reflects diversification of the available types of fertilizer as well, including liquid and organic fertilizers, which have become available from more sources.

See annex for detailed result on *Input Access* Table_A 5: Percentage of household who applied various inputs by sources.

5.3.4. *Access to Market Outlets*

The project aimed to strengthen and establish inclusive market systems that created opportunities for target participants to sell their produce at fair prices. This support included facilitating market information that informed households decision-making as well as linking them to marketing collectives that offer market outlets at reasonable prices. The paragraph and subsequent figure below report on the extent of utilization of market outlets by participants.

5.3.4.1. Access to Market Outlets: Cross-sectional Analysis

The average total value of sales per household at the endline was ETB 7,860 up from ETB 1,632 at the baseline. When adjusted for inflation, this corresponds to a 54% increase in the real value of sales.

Among all households, the average total value of sales through collectives (cooperatives and farmer economic and marketing associations [FEMAs]) per household at the endline was ETB 186, down from ETB 673 at the baseline. In inflation-adjusted terms, this corresponds to a 91% decrease in the value of sales through collectives. See annex for detailed result on average value of sales by each value chain commodity in ETB Table_A 3: Average value of sales by each value chain commodity in ETB by region overtime.

Table 12: Household sales through marketing collectives

	Tigray and Alamata/Ofla	**Amhara**	**SNNPR Hadiya**	**SNNPR Sidama & Gedio**	**Total**
Baseline					
Average total value of sales per household from any market outlet (ETB)	3711	899	348	1094	1632
Average value of sales through collectives per households (ETB)	2000	0	350	447	673
Percentage share of sales through collectives	5.3	0.0	10.0	4.0	4.0
N	417	362	104	182	**1060**
Year 3					
Average total value of sales per household from any market outlet (ETB)	4895	5068	1351	733	4102
Average value of sales through collectives per households (ETB)	43	72	48	0	49
Percentage share of sales through collectives	0.9	1.4	3.6	0.0	1.2
N	**416**	**402**	**81**	**147**	**1046**
Year4					
Average total value of sales per household from any market outlet (ETB)		10233	4239	2428	7438
Average value of sales through collectives per households (ETB)		51	247	40	76
Percentage share of sales through collectives		0.5	5.8	1.7	1.0
N		**397**	**93**	**162**	**652**
Year 5					

Average total value of sales per household from any market outlet (ETB)		5975	9544	2693	5695
Average value of sales through collectives per households (ETB)		503	230	493	464
Percentage share of sales through collectives		8.0	2.0	18.0	8.0
N		**412**	**87**	**150.0**	**649**
Endline					
Average total value of sales per household from any market outlet (ETB)	11000	6447	4267	6297	7860
Average value of sales through collectives per households (ETB)	47	333	0	233	186
Percentage share of sales through collectives	0.3	1.2	0.0	0.0	0.6
N	**384**	**432**	**96**	**160**	**1072**

Figure 22: Average value of sales through any market outlet by region (inflation adjusted)

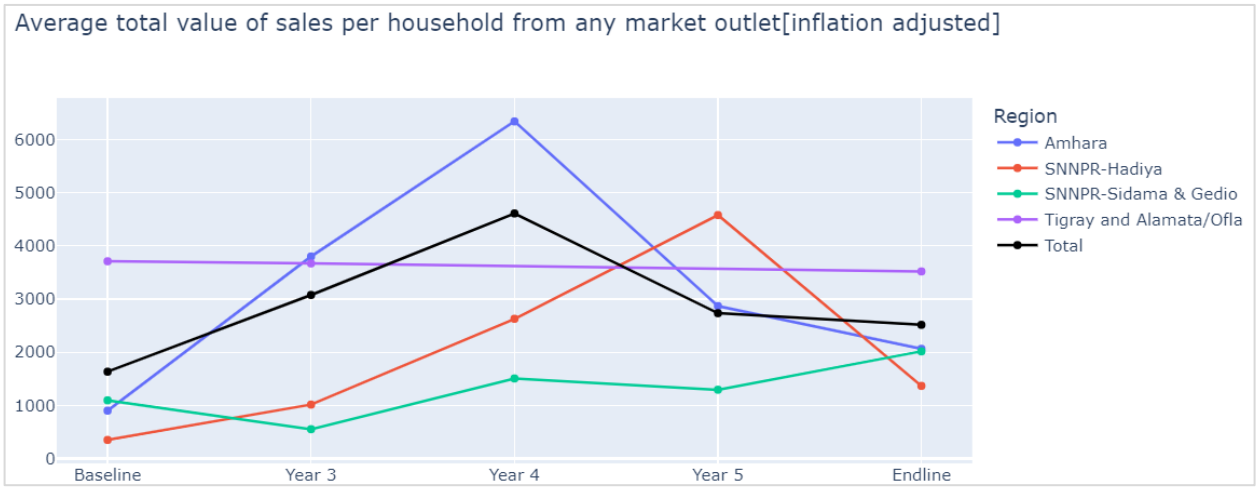
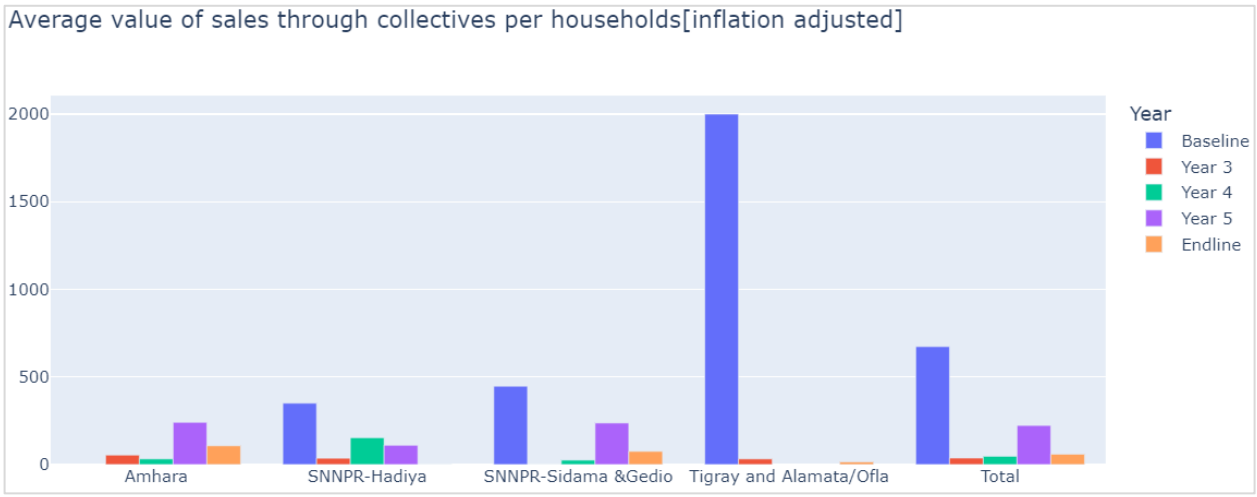


Figure 23: Average value of sales in ETB through collectives (Inflation adjusted)



5.3.4.0. Access to Price Information: Cross-sectional Analysis

The percentage of households who reported accessing market information (market price) decreased from 50.2% at baseline to 36.8% at endline. In terms of household composition, at baseline and in year 3, MHH had more access to market information than FHH, however, from year 4 to endline, FHH had more access to market information.

Marketplaces were the major sources of information on market price and buyers of products at baseline (53.4%), but by endline, the major sources of information were neighbors, friends, and family (48.1%), for both male- and female-headed households. These two sources remained the primary sources of information on baseline (83%) to endline (75%), but the proportion of market information obtained from radio and traders increased from 8.6% at baseline to 16.8% at endline.

5.3.5. Off-farm Activity: Cross-sectional Analysis

There was a small increase in the proportion of households receiving income from one or more off-farm activity between baseline and endline (30.6% and 32.6% respectively), but a more than a three-fold increase in households receiving income from 2 or more off-farm activities (from 3.2% at baseline to 10% at endline). At endline, the SNNPR-Hadiya and SNNPR-Gedio and Sidama had the highest percentage of households earning income from at least one off-farm activity (around 47% each) with SNNPR-Hadiya reporting highest percentages in the two or more category (22.2%) and SNNPR-Gedio and Sidama reporting the lowest (6.6%).

Figure 24: Percentage of households who have income from at least one off-farm activity by region overtime

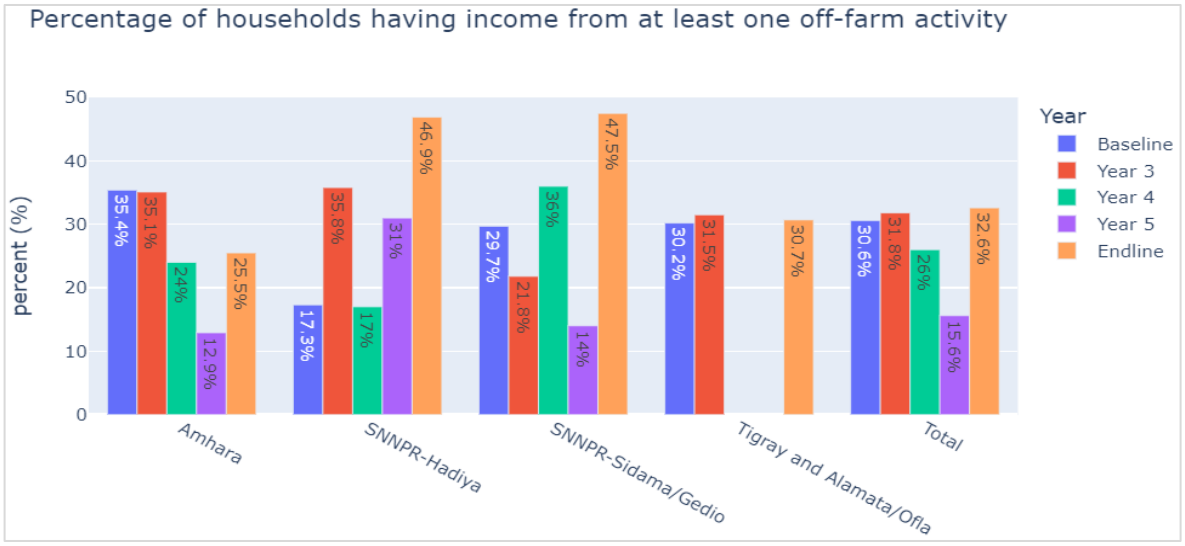
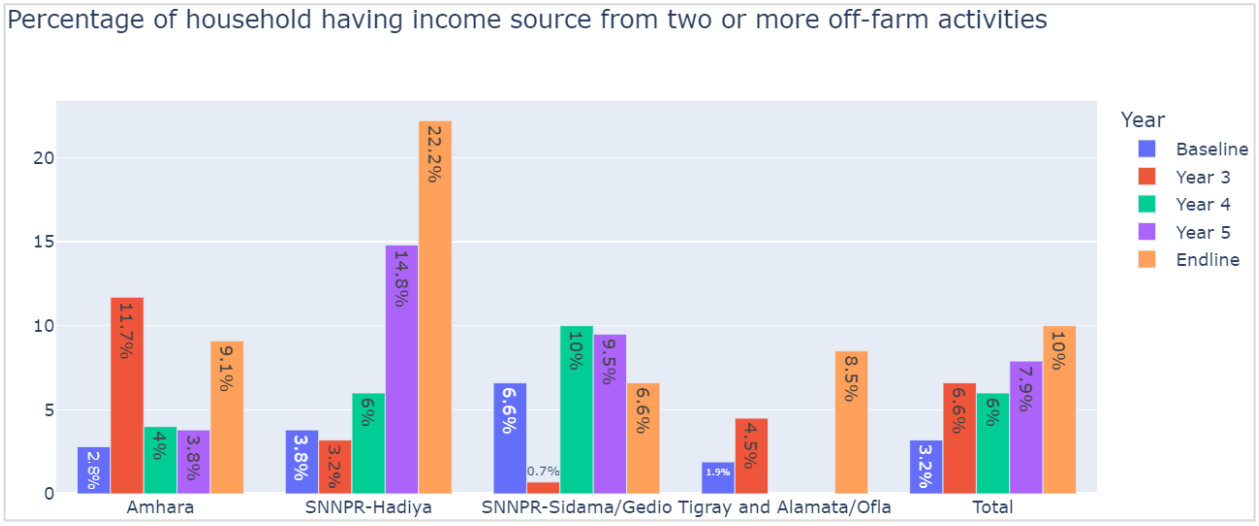
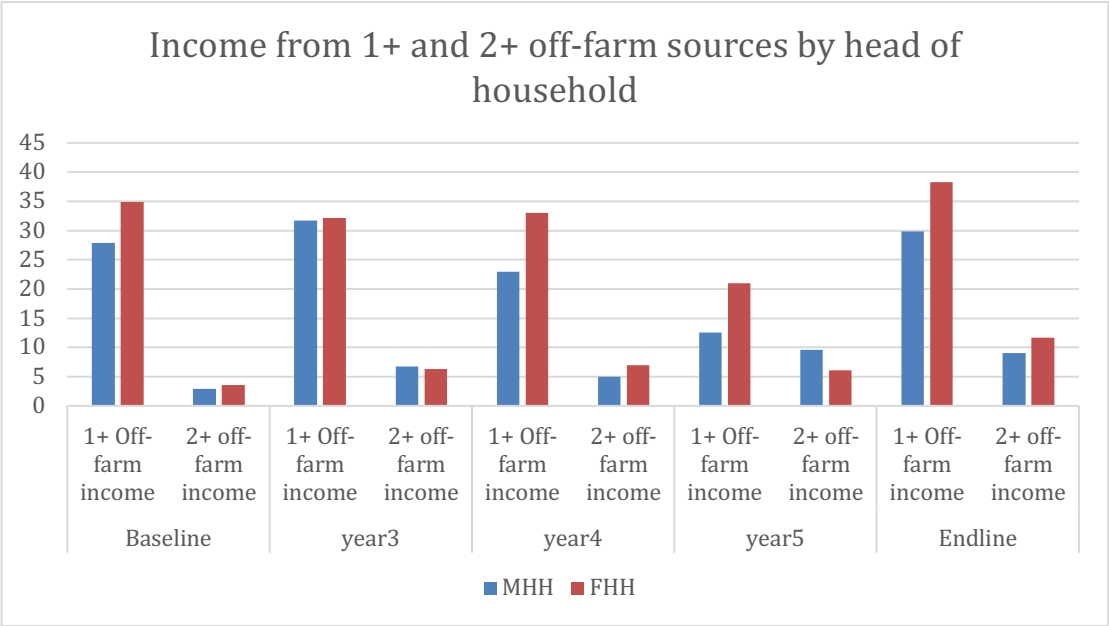


Figure 25: Percentage of households who have income from at least two or more off-farm activity by region overtime



In terms of household composition, FHH consistently reported higher rates of receiving income from at least one and at least two off-farm activities than MHH, with the exception of year 5, where FHH were slightly less likely to earn income from two or more off-farm sources than MHH (9.6% and 6.1% respectively).

Figure 26: Income from 1+ and 2+ off-farm sources by head of household



Petty trade[5] has been the most important off-farm activity across regions and household compositions, with 39.3% of households with off-farm income engaged in petty trade at baseline, and 49.3% of households with off-farm income engaged in petty trade at endline. Engagement in micro-franchise also showed a significant increase over the life of the project (1.5% to 6.6%), although the percentage of households with off-farm income reporting income from micro-franchise remains small at endline.

5.3.6. Wage Employment: Cross-sectional Analysis

The proportion of households who engaged in wage employment shows a decreasing trend from baseline to endline (22.5% to 14.6%) with an exception on year 3 (27.4%). Regular wages decreased from 4.9% to 3.8%, while casual or irregular agricultural wages declined from 10.1% to 6.0%. Furthermore, other daily labor work decreased from 8.0% to 5.6%. In summary, there was an overall decrease in households earning regular wages, casual or irregular agricultural wages, and other daily labor work from baseline to endline.

Figure 27:Percentage of households who engaged in regular wage employment by region

[5] Petty trade includes the buying and reselling of agricultural and industrial products and excludes the production and selling of agricultural produce.

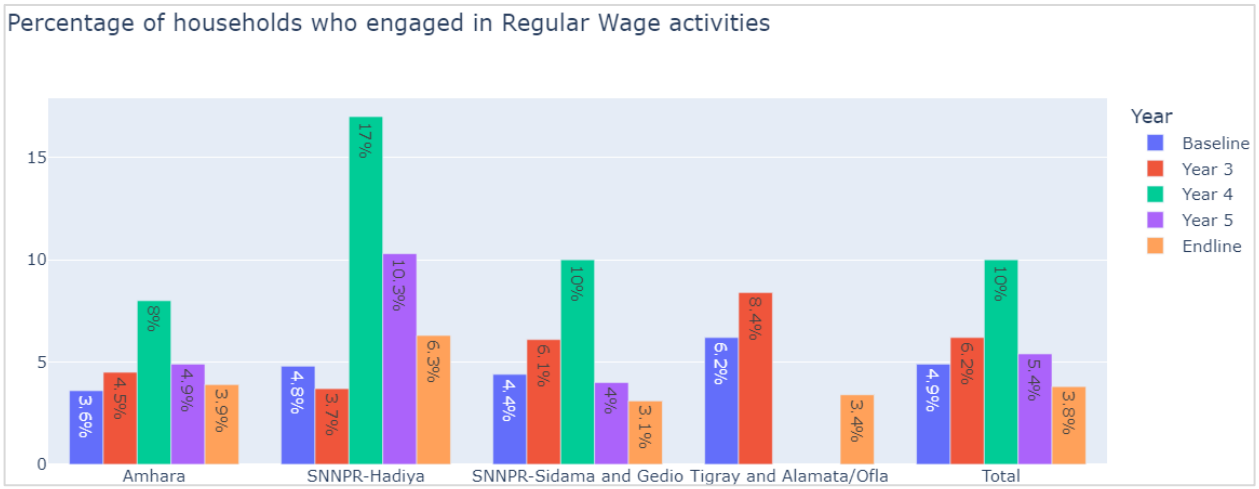


Figure 28: Percentage of households who engaged in casual/irregular wage by region

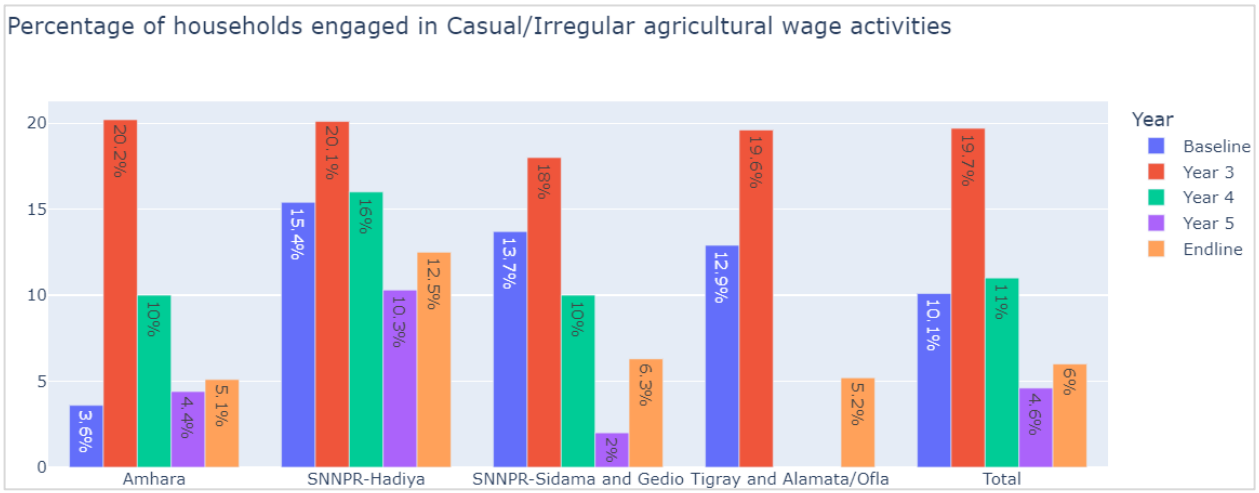
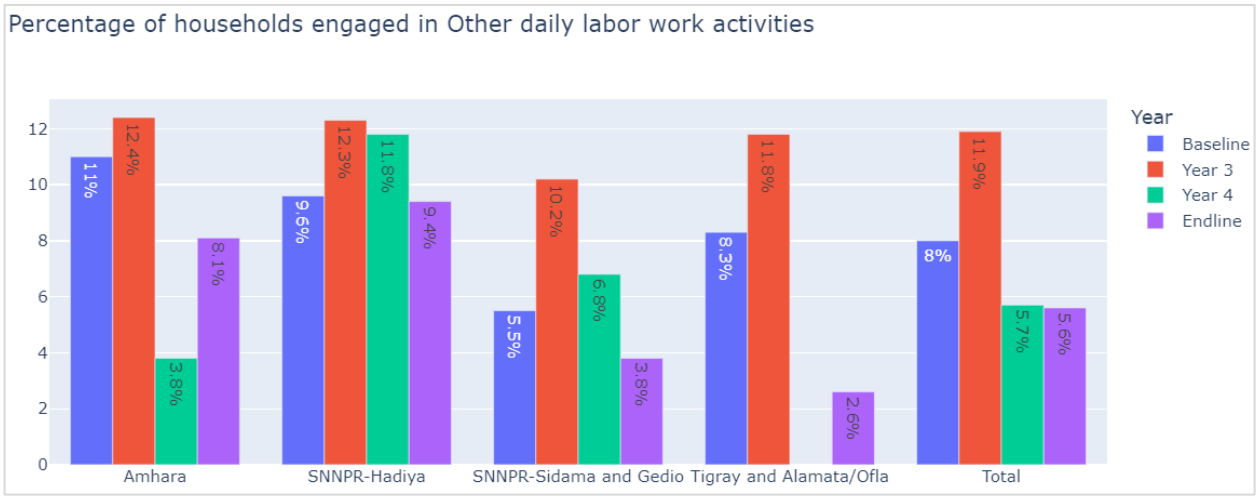


Figure 29: Percentage of households who engaged in other daily labor work activities by region



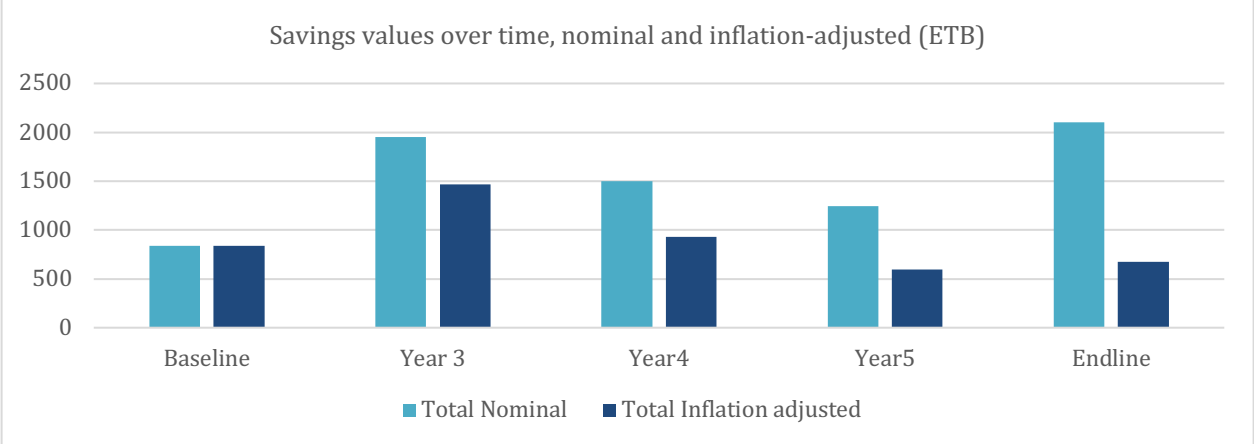
5.4. Financial Services

5.4.1. Financial Services: Cross-sectional Analysis

5.4.1.1. Savings

L4R households' savings trends reflect a strong household commitment to save, although increases in savings did not always keep up with inflation. In nominal terms, both annual savings and current savings increased significantly from baseline to endline. However, when adjusted for inflation, the average annual savings shows a decrease of 19% in real value, while the current savings show an increase of 62% in real value. At endline, households reported having saved an average of 2,105 ETB in the last 12 months, up from just 837 ETB at baseline. When adjusted for inflation, however, this represents a 19% decrease in the real value of savings. In terms of current savings, households reported an average of 969 ETB in current savings at endline, up from just 599 ETB at baseline. When adjusted for inflation, this represents a 62% increase in real current savings.

Figure 30: Savings values over time, nominal and inflation-adjusted (ETB)



The percentage of households saving at endline was 84%, down slightly from a baseline of 87.5% (note that the baseline value appears high because all households surveyed at baseline had just joined VESAs and begun to save in these VESAs—hence this figure does not accurately represent pre-project savings rates). VESAs are the primary institution in which households are saved. At endline, Amhara had the highest proportion of households actively saving, while SNNPR-Hadiya had the lowest percentage.

Figure 31: Percentage of HHs who saved in at least one financial institution

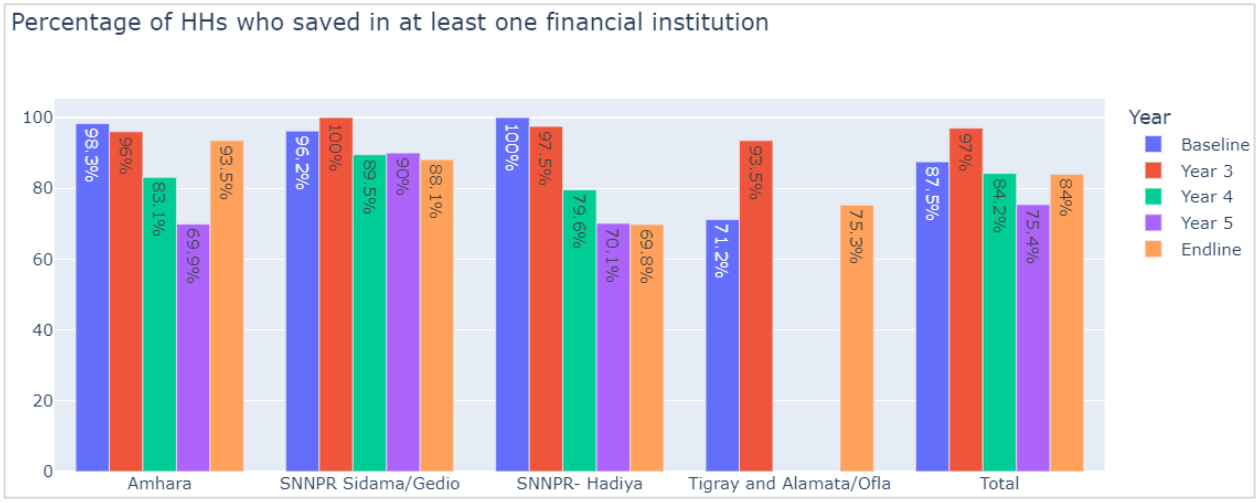


Figure 32: Percentage of households who saved in financial institution for last 5 years by source

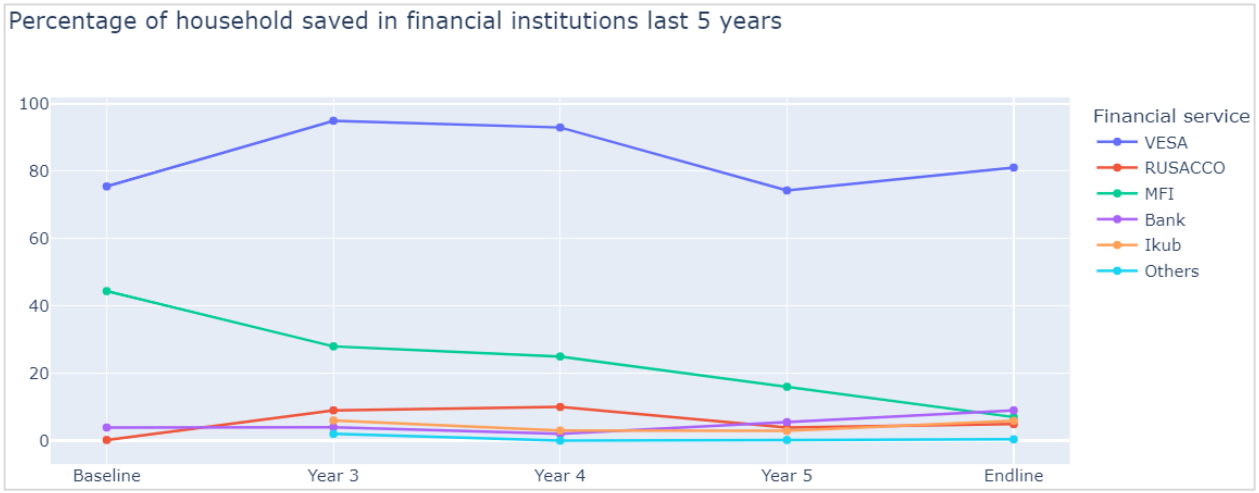


Figure 33: Household's total average saving in ETB in the last 12 months by region (Inflation adjusted)

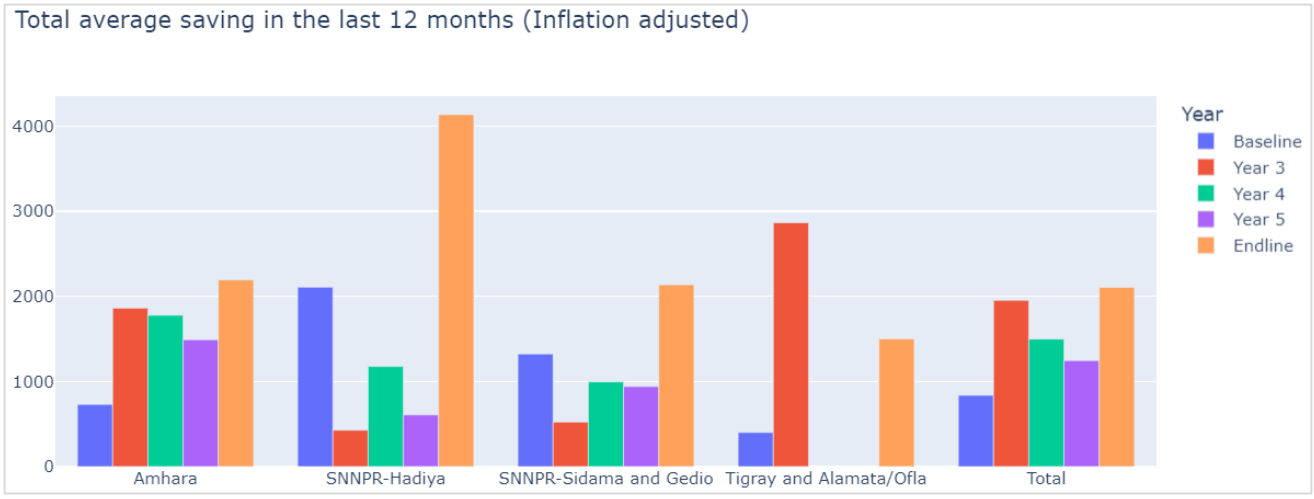


Figure 34: Household's current average saving balance from any saving institution [Inflation adjusted]

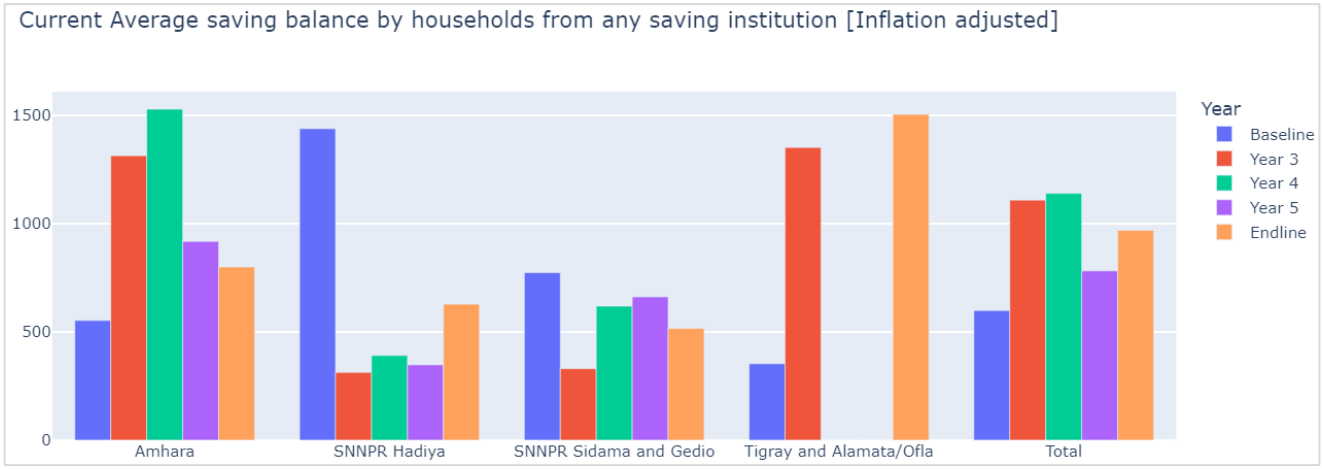


Figure 35: Percentage of households who saved in VESA in the last 5 years

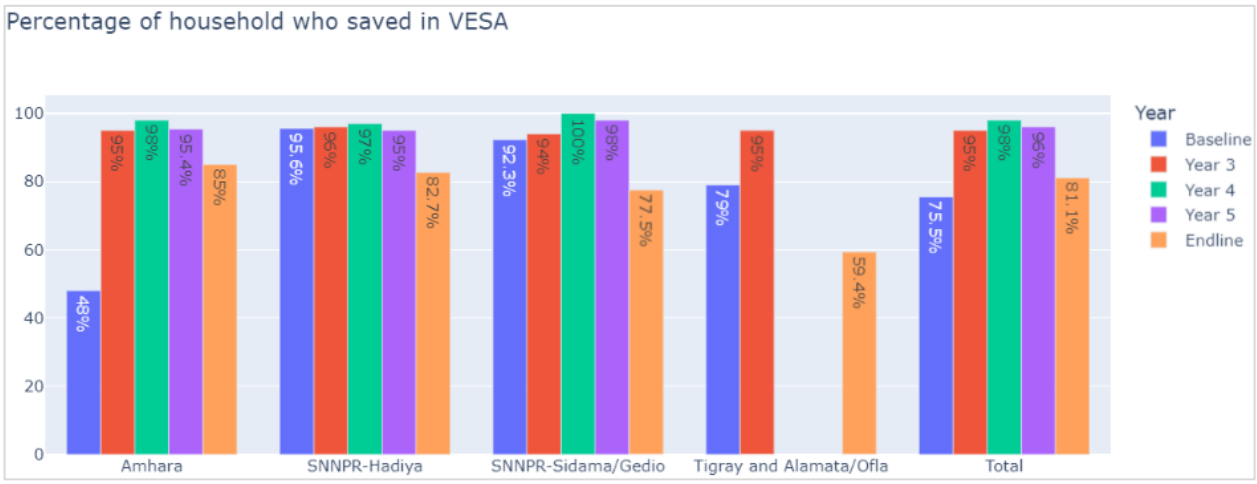
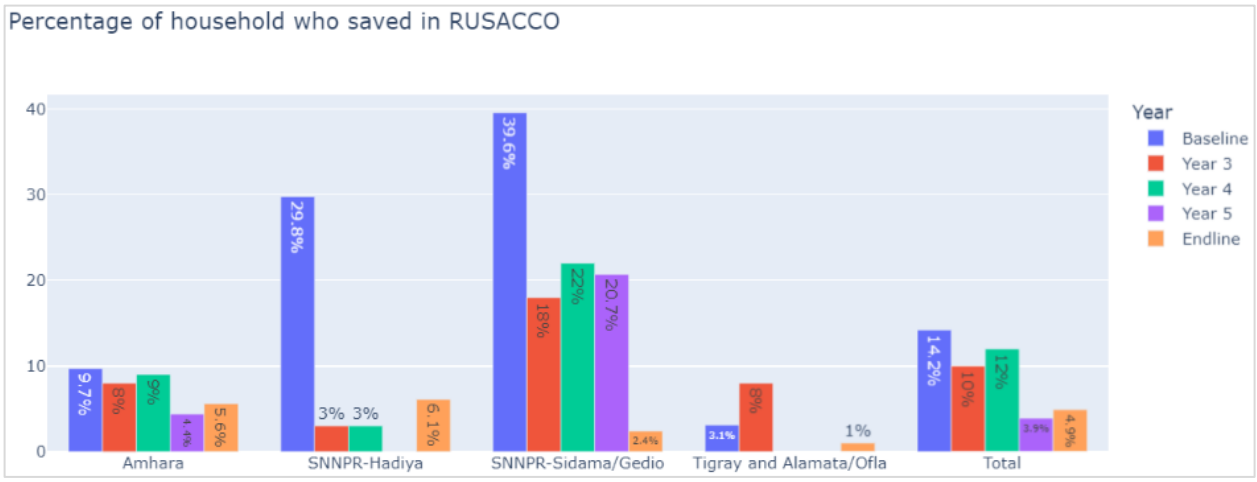


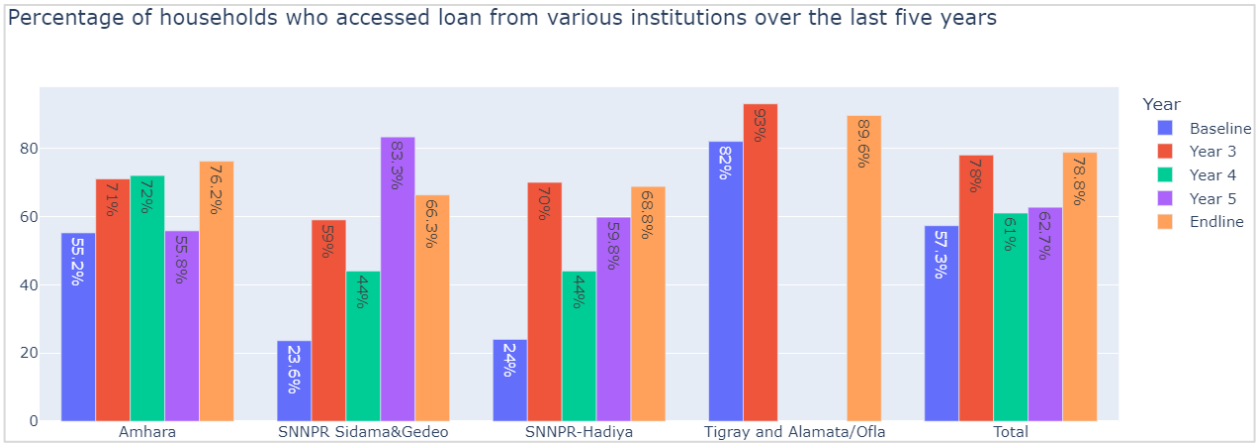
Figure 36: Percentage of households who saved in RuSACCO in the last 5 years



5.4.1.2. Loans

Household loan access increased significantly over the life of the project. At endline, 79% of households reported having accessed a loan in the last five years, up from just 57% at baseline, reflecting a 38% average increase in loan access across regions, though regional variations were significant. Both MHH and FHH loan access increased, though the increase for MHH was more significant than FHH (41% and 31% increase respectively).

Figure 37: Percentage of households who accessed loan from various institutions over the last five years



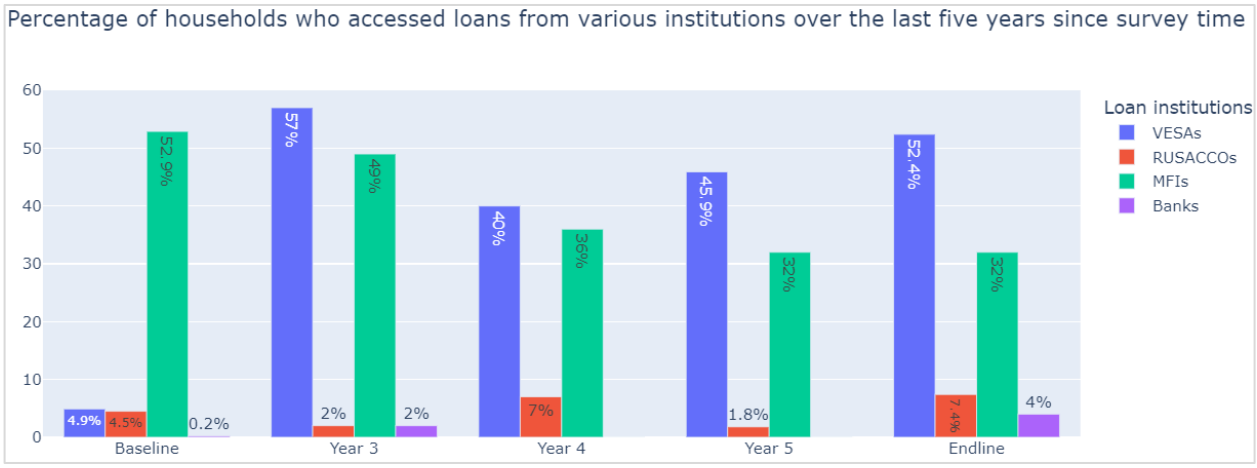
Tigray stood out with the highest reported loan access in the previous five years, both at baseline (82%) and endline (89.6%). The robust endline performance was likely influenced by the 5-year recall period, encompassing the time before the conflict, and capturing loan access in year 3, when 93% of households in Tigray reported accessing loans in the last 5 years. Tigray also had much higher loan access to begin with.

SNNPR-Hadiya and SNNPR-Sidama-Gedio reported the greatest improvements in loan access over the life of the project: at endline, 68.8% of households in Hadiya and 66.3% of households in SNNPR-Sidama & Gedio reported having accessed a loan in the last five years, up from just 24% and 23.6% respectively at baseline. Hence SNNPR-Hadiya saw a 187% increase in loan access from baseline to endline, while SNNPR-Sidama & Gedio saw a 181% increase.

In Amhara, 76.2% of households reported having accessed a loan in the previous five years at endline—an increase of 38% over the baseline figure of 55.2%.

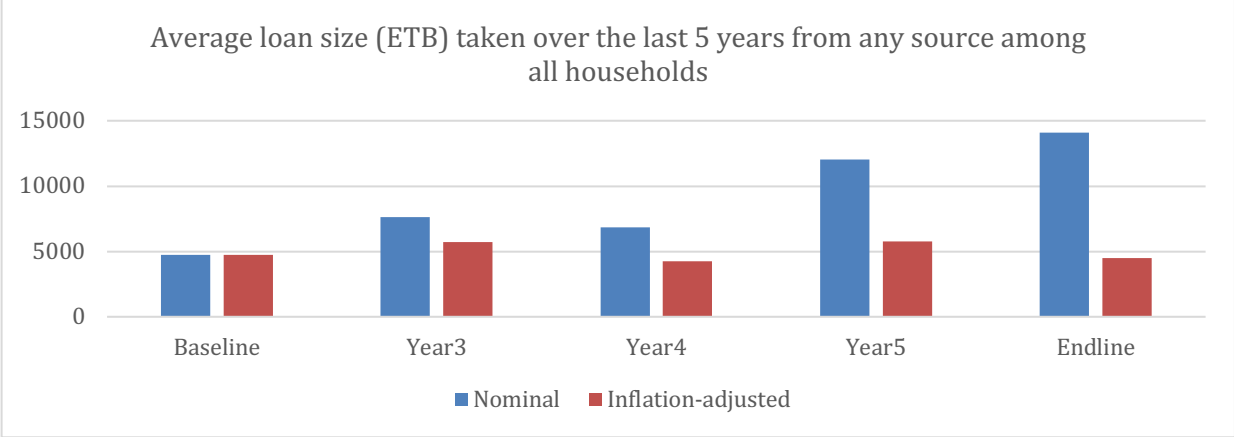
Microfinance Institutions (MFIs) and VESAs are the two main financial institutions from which households accessed loans in the last five years. At baseline, 52.9% of all households reported accessing loans from MFIs, and 4.9% of households reported accessing loans from VESAs. By endline VESA access increased to 52.4%, and MFIs access had decreased to 32%. The five-year recall period was intended to capture the full project period but may have made it difficult for households to recall accurately. At endline, female-headed households' access to VESA loans was slightly higher than that of male-headed households (54.2% compared to 51.6%), but their access to MFI loans was slightly lower (30.5% compared to 32.7%).

Figure 38: Percentage of households who accessed loans from various institutions over the last five years since survey time by loan source



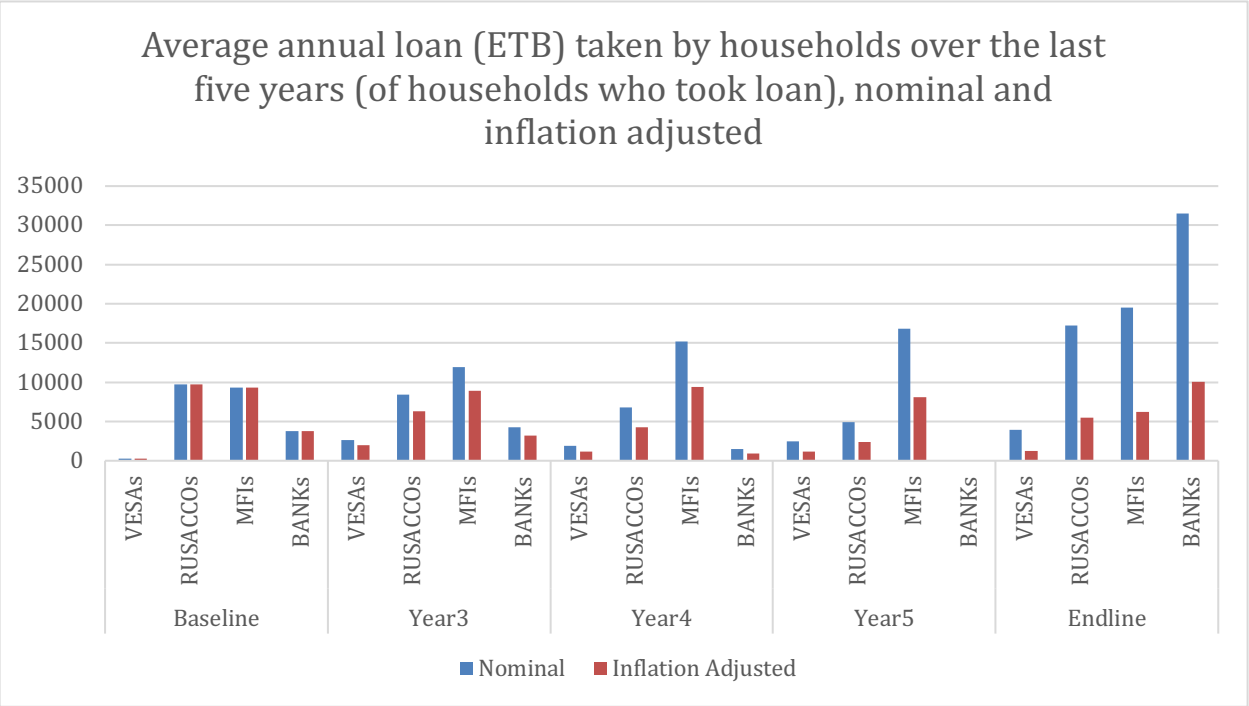
Loan sizes from any source increased 196% in nominal terms from baseline to endline, but decreased 5% in inflation-adjusted terms. The average nominal loan size at endline was 14,066 ETB, up from 4,746 ETB at baseline.

Figure 39: Average loan size (ETB) taken over the last 5 years from any source among all households



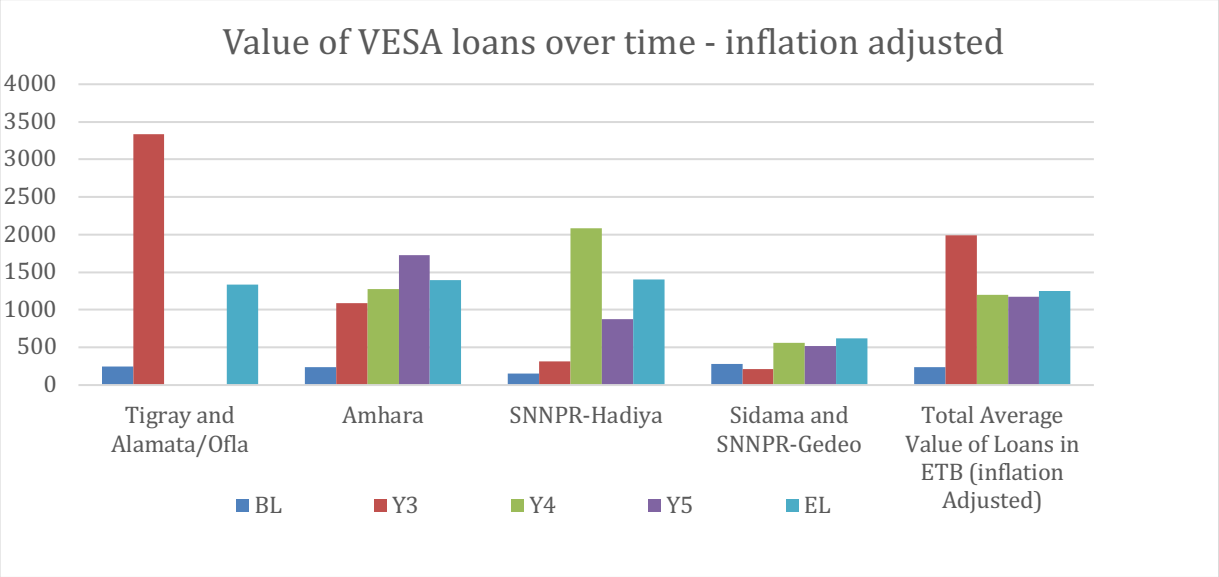
Among households who took loans from each source, the average nominal loan values reported at endline were ETB 3,921 from VESAs, ETB 17,243 from Rural Saving and Credit Cooperatives (RuSACCO), ETB 19,510 from MFIs, and ETB 31,467 from banks. When adjusted for inflation, VESA loan values increased by 424% from baseline to endline, while RuSACCO loan values decreased by 43%, MFI loan values decreased by 33%, and bank loan sizes increased by 169% among households who took loans from these institutions. As seen in the below graph, inflation has significantly eroded loan values in real terms.

Figure 40: Trend in the value of loan by type over time – inflation adjusted - ETB



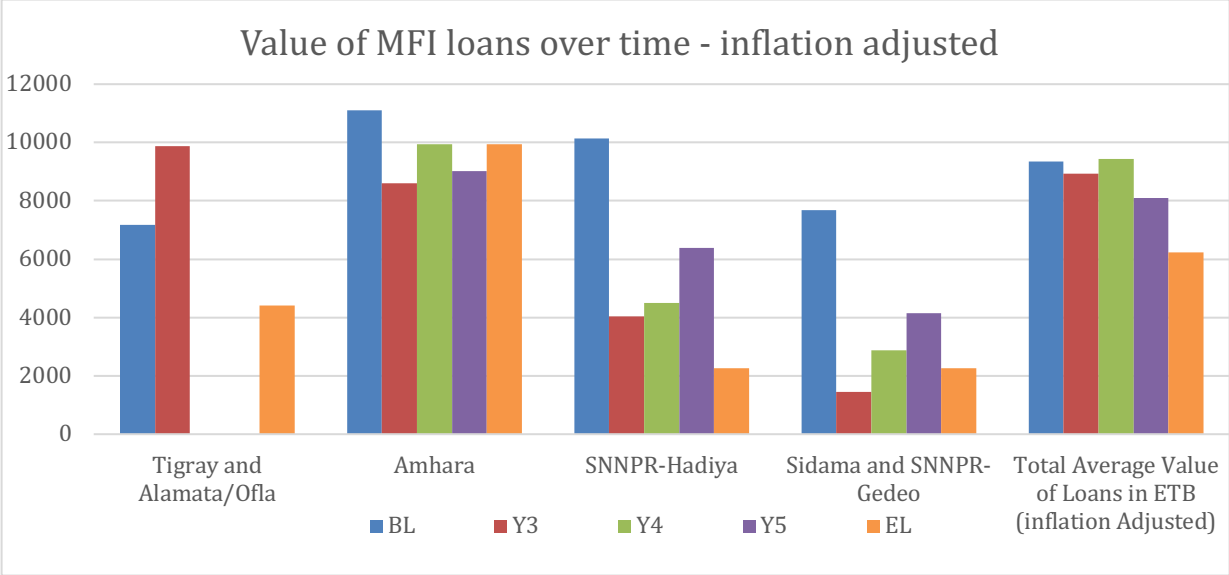
VESA loan sizes increased between baseline and year 3 for all implementation areas, and could have been on track to continue to increase, if not for the occurrence of major shocks (COVID-19 following by conflict). Data on VESA loan size is unavailable for Tigray in years 4 & 5 (appears as zero in the below graph but is actually N/A). VESA loans in Amhara, Hadiya, and Sidama and Gedio all increased from baseline to endline, even after adjusting for inflation.

Figure 41: Value of VESA loans over time – inflation adjusted, ETB



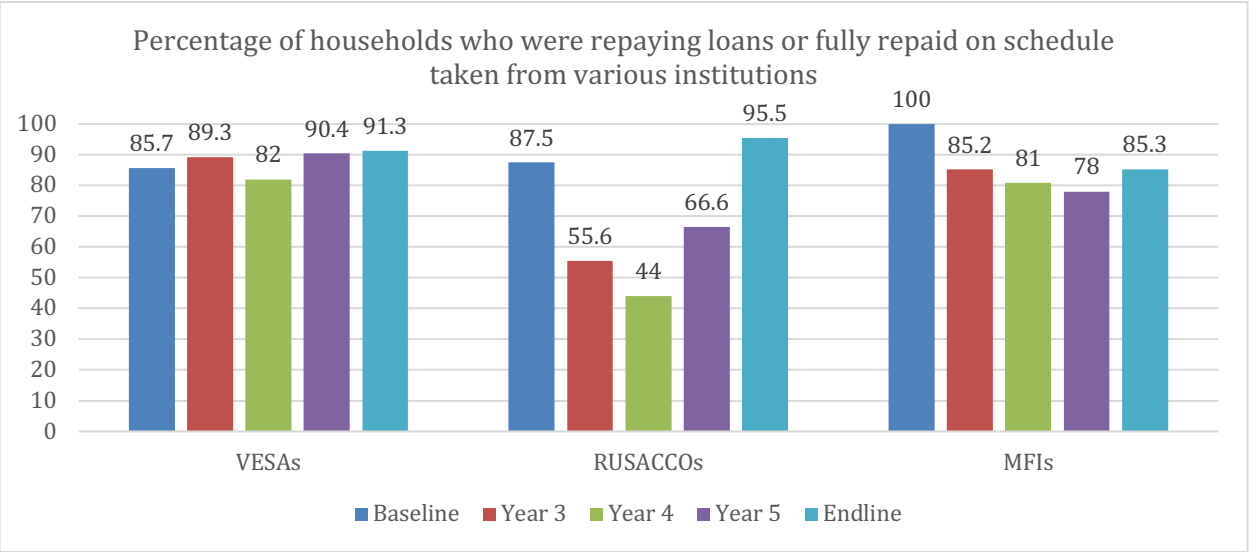
At endline, the average MFI loan value for project households was 19,510 ETB, a significant increase from baseline of 9,340 ETB. When adjusted for inflation, however, the real value of loans decreased by 33%. MFI lending in Amhara was strong throughout the project period, even after adjusting for inflation, while MFI loan sizes and the other implementation areas experienced a decline in inflation-adjusted values.

Figure 42: Households' average annual MFI loan size taken over the last five years, among households that took loans from MFIs – inflation adjusted - ETB



Percentage of households who had taken a loan from various institutions in the last 5 years who were repaying loans or fully repaid on schedule increased slightly from baseline to endline for VESA and RUSACCO loans but decreased slightly for MFIs. At Endline, among households whose loans had matured, 91% of households with VESA loans were repaying them on time, or had fully repaid them, 96% had repaid or were repaying their RuSACCO loans, and 85% had repaid or were repaying their MFI loans, compared to baseline where 86% were repaying their VESA loans, 88% were repaying their RuSACCO loans, and 100% were repaying their MFI loans. There was more variability in loan repayment from RUSACCOs over the life of the project, compared to other loan types, however at endline RUSACCO loan repayment was higher than at any other point. It is important to note that far more households were taking loans at endline compared to baseline. Declines in repayment were recorded from Tigray and Alamata/Ofla, which had 100% repayment rates for VESA, RuSACCO and MFI loans at baseline, and only 85%, 78%, and 78% respectively at endline. This is most likely due to financial institutions not fully operating at endline and challenges in repayment due to loss of assets and income. At endline, MHH were slightly more likely to have repaid or be repaying their loans than FHH.

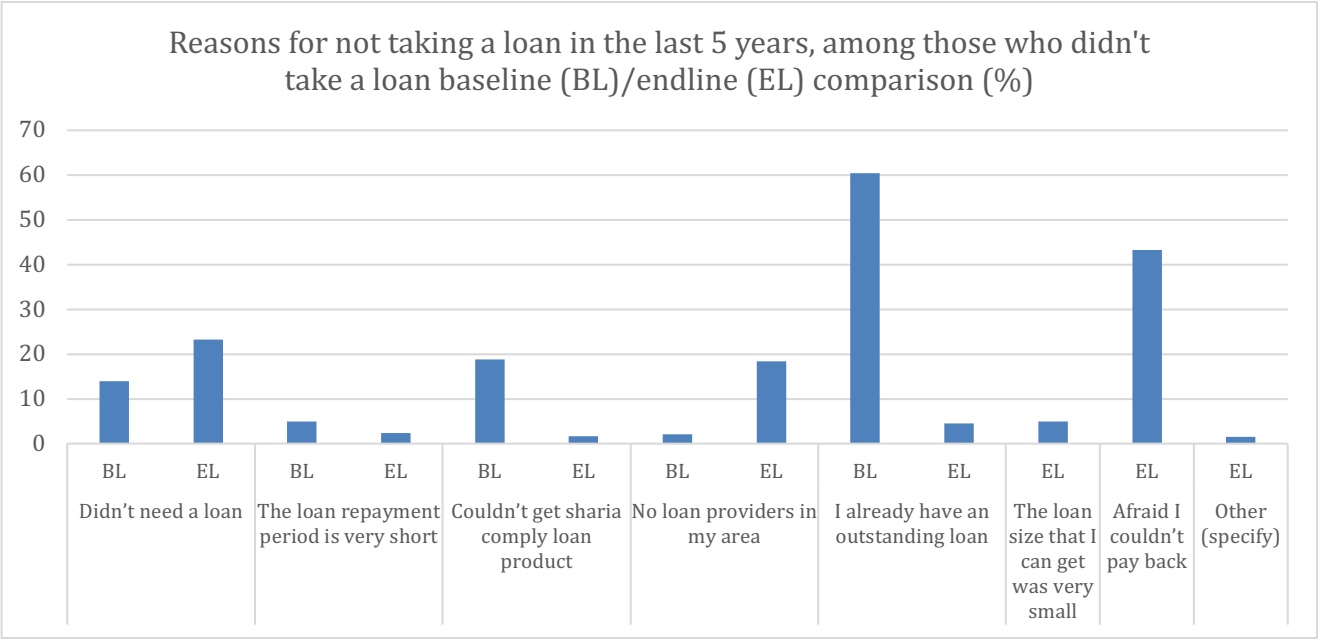
Figure 43: Percentage of households who were repaying loans or fully repaid on schedule taken from various institutions



Regarding loan use, 77% of households reported to have used over 90% of the loans they received for the intended purpose at endline, up from 54% at baseline. Improvements in loan use were particularly significant in SNNPR-Hadiya and SNNPR-Sidama and Gedio, which showed 95% and 178% increases, respectively, in the percentage of households using over 90% of the loans for the intended purpose. In terms of household composition, there were no significant variations in loan use between MHH and FHH.

For households who reported not accessing loans from any source in the last 5 years, their main reason at baseline was because of outstanding loans (60%), however at endline, the primary reasons for not taking a loan in the last 5 years was fear of not being able to pay back (43%) and not needing a loan (23%). Notably, there was a significant decline in households reporting that they didn't take a loan because they could not get a sharia-compliant loan product – from 18% at baseline to just 1.7% at endline.

Figure 44: Reasons for not taking a loan in the last 5 years, among those who didn't take a loan baseline (BL)/endline (EL) comparison



5.5. Gender Equality and Women's Empowerment[6]: Cross-sectional

The project worked to address gender inequalities through integrating gender approaches in its activities to build women's agency and improve an enabling environment for women's empowerment. This section assesses the outcomes of these efforts using key gender indicators.

The assessment adopted a few modules from the abbreviated Women Empowerment in Agriculture Index (WEAI) and computed women's empowerment based on selected indicators of WEAI, instead of administering the entire module and constructing of the index. The responses of women in male-headed households were used to calculate achievement in the five empowerment domains based on WEAI aggregation protocol. These domains are detailed below:

- **Input in production decisions** measures the extent to which women can influence households' decisions, focusing on agriculture productions, including major household expenditure. Women are considered to have achieved "adequate empowerment" on input in productive decisions if there are at least two types of decisions in which they have some input in decisions, make the decision, or feel they could make the decision to a medium extent if they wanted to.
- **Ownership of assets** examines whether an individual has sole or joint asset ownership of land and other productive assets, based on a comprehensive list of asset types. According to this indicator, a woman is considered "adequately empowered" on ownership if she reports having sole or joint ownership of any of the items, conditional on the household's owning those assets. Furthermore, for the woman to be considered adequately empowered in this domain, ownership cannot be limited to one minor asset only (poultry, non-mechanized equipment, or small consumer durables).

[6] Note: Calculations for the five empowerment domains are based on WEAI aggregation protocol. The same approach is used for all the years with the exception of year 5 as base questions for computing these domains were missing in year 5 datasets and took the pre calculated fields from the dataset previously reported results.

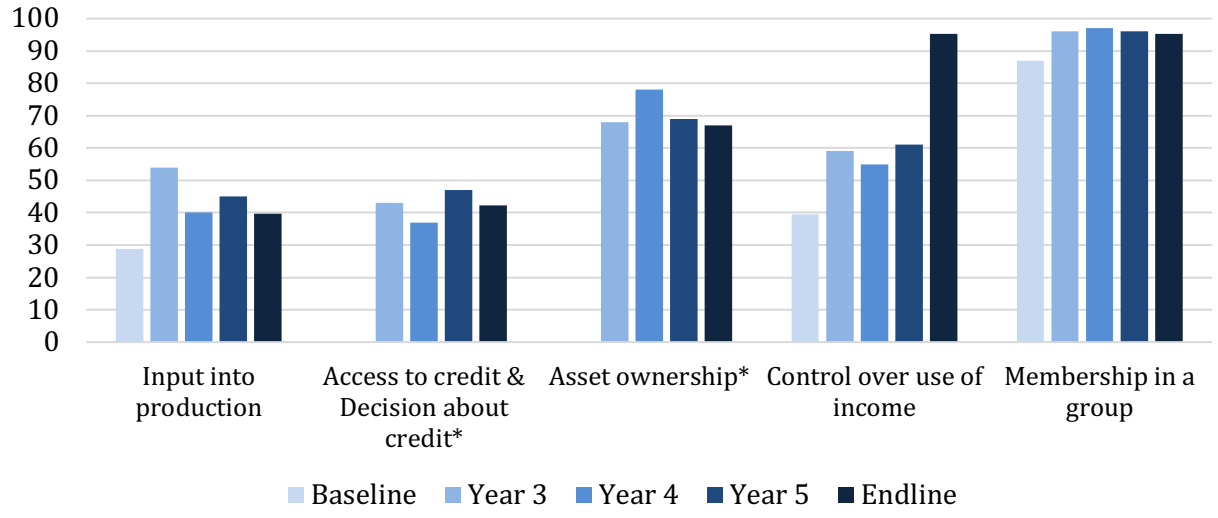
- **Access to and decisions about credit** examines decision making about credit: whether to obtain credit and how to use the credit obtained from various sources. To have achieved "adequate empowerment" in this indicator, a woman must belong to a household that has used a source of credit in the past year, and must have participated in at least one decision about it. Women who live in households that do not use any source of credit are considered to be "inadequately empowered" on access to credit and hence are assigned the value 0 for this indicator.
- **Control over use of income** assesses the level of women's influence and participation in decisions pertaining to household income and expenditure. A woman is considered "adequately empowered" on control over use income if she has at least some input in decisions on at least one income generating activity of the household *and* if she feels she could participate in the decision making related to that activity at least to a medium extent.
- **Group membership** indicates whether the woman is an active member of at least one formal or informal group, including a VESA. A woman is considered "adequately empowered" on group membership if she is an active member of at least one group, with the understanding that social capital is a resource.

For the women's empowerment indicators that were collected at both baseline and endline, there was a positive trend in achieving adequate empowerment for all indicators between baseline and endline.

- Input into production **increased 38%** (from 29% to 40%)
- Control over use of income **increased 142**% (from 40% to 95%)
- Membership in a group **increased 8%** (from 87% to 94%)

Two of the indicators of women's empowerment were not included at baseline (asset ownership, and access to and decisions about credit), but added in from year 3 to endline. For these indicators the change between year 3 and the endline were minimal.

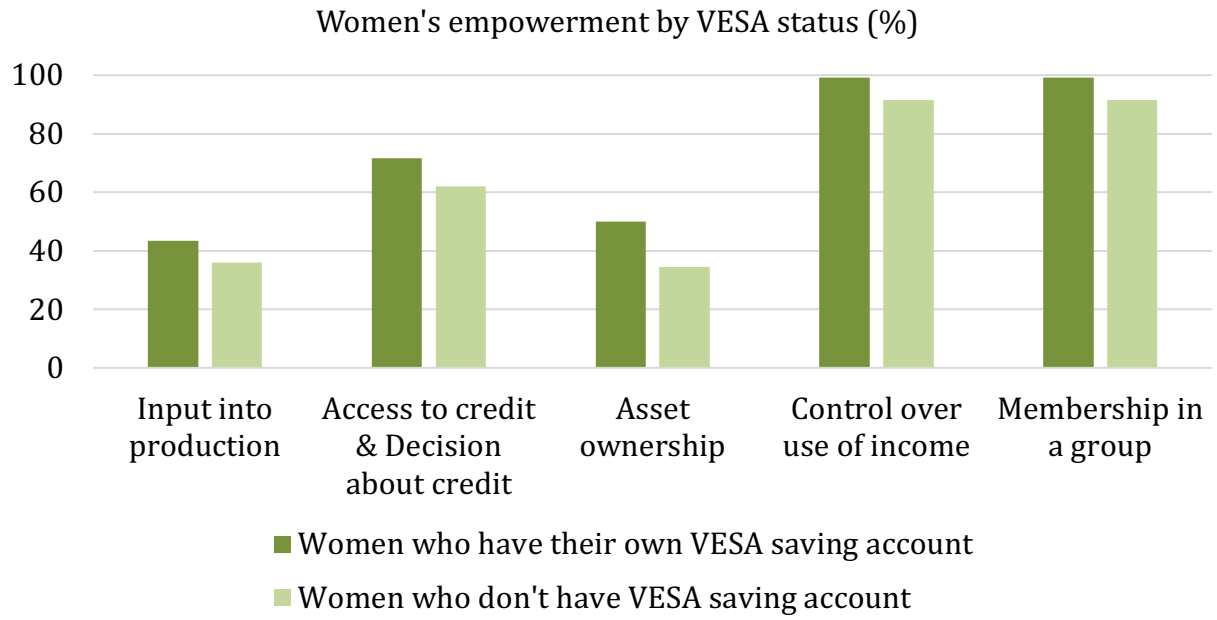
Figure 45: Percentage of women who achieved empowerment adequacy.



Leadership in a group is also an important indicator of empowerment. Holding a leadership role in a group **increased 86%** from baseline to endline (17% to 30%).

Women who have their own VESA saving accounts are more likely to have positive empowerment indicator outcomes. From baseline to endline, women who have their own VESA saving accounts relatively had (i) more input into production, (ii) more access to credit and decision about credit (iii) more asset ownership, and (iv) more control over use of income.

Figure 46: Women's empowerment (using WEIA) by VESA status (%)



Among women with VESA accounts, the endline findings indicate substantial progress and empowerment in various domains. In the "Control over use of income" domain, 99.1% of women with VESA saving accounts exhibited adequate empowerment, underlining the significance of VESA account ownership in achieving autonomy in financial decisions. In the "Asset ownership" domain, 50% of these women had achieved empowerment, illustrating a positive connection between VESA accounts and the capacity to accumulate and manage assets effectively. Similarly, 71.7% of women with VESA accounts had attained empowerment in the "Access to credit & Decision about credit" domain, emphasizing the beneficial role of VESA accounts in enhancing access to credit and informed decision-making. Furthermore, 43.4% of these women were found to have achieved adequate empowerment in the "Input into production" domain, indicating that VESA account ownership may contribute to greater involvement in various aspects of production.

In contrast, the analysis among women without VESA accounts reveals a different scenario. Within the "Control over use of income" domain, 91.5 % of women without VESA saving accounts had achieved adequate empowerment by the endline. While this is still relatively high, it illustrates the challenge many women face in gaining control over their finances without VESA account support. While 34.4% of these women exhibited adequate empowerment in asset ownership, this percentage was notably lower compared to women with VESA accounts, suggesting the potential

benefits of VESA accounts in facilitating asset accumulation. In the "Access to credit & Decision about credit" domain, 62.1% of women without VESA accounts had achieved adequate empowerment, highlighting the role of VESA account ownership in empowering women to access credit and make informed decisions in this context. Lastly, in the "Input into production" domain, 35.9% of women without VESA accounts exhibited adequate empowerment.

The percentage of women in MHH who reported being supported by their husbands on household chores increased 47% from baseline to 70% at endline (a 51% increase). Households in Tigray and Alamata/Ofla experienced the greatest change, with an 82% increase (from 38% to 69%), while Hadiya experience the least change, increasing just 4% (from 67%-70%), largely due to having a high value at baseline).

Women who report that their husband's support them with household chores "sometimes" increased 305% between baseline and endline (from 11% to 45%), while those reporting their husbands support them with household chores "most of the time" decreased 18% from baseline to endline (from 37% to 30%). There was a 51% decline in women who reported that their husbands "rarely" support them with household chores (from 52% to 25%). Women in both Hadiya and in Gedio and Sidama experienced significant increases (110% and 126% respectively) in reporting that their husbands support them "most of the time", while women in Tigray experienced the largest increase in their husbands supporting them "sometimes", with a 439% increase.

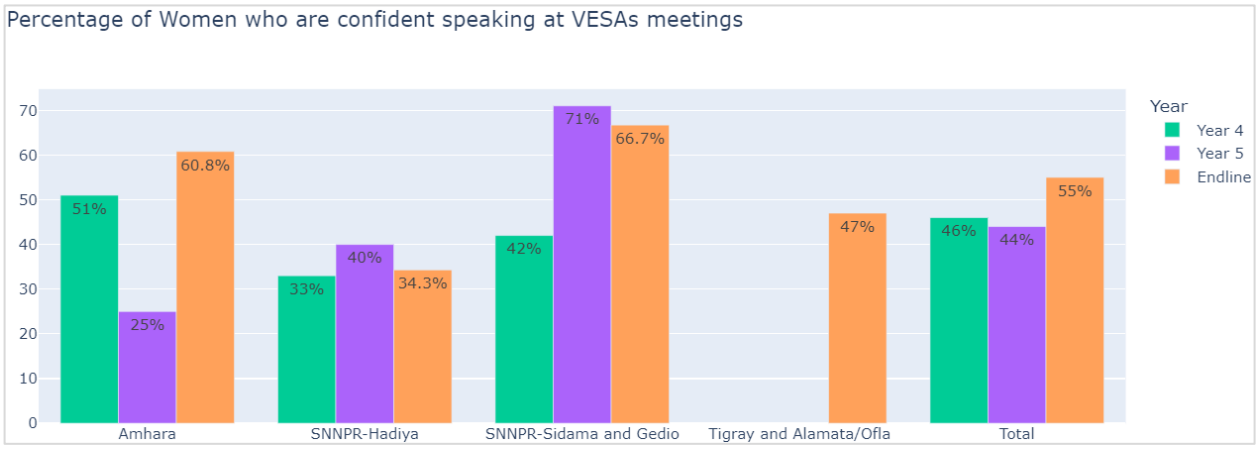
Women's perception on the fairness of chore sharing between men and women within the household has shifted over time, from the majority (71%) of women reporting that the sharing of household chores was "fair" or "very fair" at baseline to only 49% reporting that the sharing of household's chores was "fair" or "very fair" at endline. This represents a 30% decrease in women reporting that chore share is "fair" or "very fair". Conversely, women reporting that household chore sharing was "very unfair" or "unfair" increased 73% from baseline to endline (from (29% to 51%). It should be noted that this indicator measures women's perception of the fairness of chore sharing, and not the actual practice of chore sharing (which is detailed above) – thus the increase in the perception of unfairness could be interpreted as an increase in women's empowerment, due to increased expectations that men participate in household chores.

Women were asked about when their husband helps them with chores, including during exceptional times (when she is pregnant, giving birth or sick), as well as unexceptional times (when he sees she is busy with other things, or in "normal" circumstances). **Women reported increases in their husbands helping with chores during normal times – a 22% increase in helping when she is busy with other things (from 52% to 63%), and a 23% increase in helping in "normal circumstances" (from 21% to 26%).** There were decreases in women reporting that their husbands help with chores during exceptional times – a 16% reduction when pregnant (from 75% to 63%), and a 17% reduction when giving birth (from 78% to 65%). There was no change in women reporting their husbands help with chores when they are sick – holding at 74%.

Women's level of confidence in speaking at VESA meetings increased from Year 4 to endline (this indicator was not measured at baseline and year 3 results are omitted due to variations in survey methodology used): at endline, the majority of women (55%) reported feeling confident

("moderately confident" or "very confident"), up from 46% in Year 4. There were significant variations across regions: SNNPR- Gedio and Sidama reported a 59% improvement, with 66.7% of women reporting being confident speaking in VESA meetings at endline, up from just 42% in Year 4. Women in SNNPR-Hadiya reported the lowest levels of confidence at endline (34.3%) and the smallest increase from Year 4 (4% increase).

Figure 47: Percentage of women who are confident in speaking at VESA meetings



During the project start up, the team conducted a gender analysis using outcome mapping, which identified women's hopes and aspirations, including:

- Lending to other women in their community
- Helping other women in their community
- Doing business with other women in their community
- Being able to sell products on credit to other women in their community

Measurement of these actions were integrated into the IR assessment in Year 3, and collected through endline – there is thus no baseline data for these indicators.

In terms of women's support to others in their community, women who provide cash loans to other members of the community declined from year 3 to endline (20.8% to 14%, respectively), and those who help members of the community also declined (from 21% to 14%). The decline in this indicator was particularly pronounced for Tigray. Women in SNNPR-Hadiya and SNNPR-Sidama and Gedio reported an improvement in the provision of loans to other women.

Other aspects of women's business engagement with their community declined from Year 3 to endline as well. The percentage of women who did business with other women in their community declined from 27.1% in Year 3 to 5.9% at endline, while the percentage of women who sold products on credit declined from 16.5% in Year 3 to 4.2% at endline. Like above, the declines in women's business engagement were driven be sharp reductions in Tigray.

5.6.Household Nutrition and Health

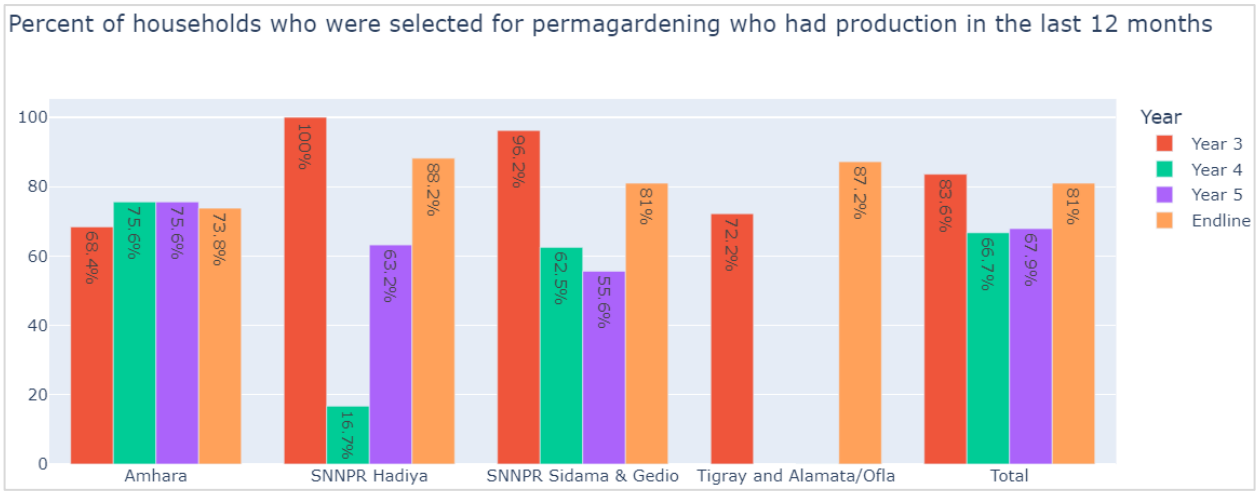
The project actively worked towards attaining household food security and nutrition by creating awareness on essential nutrition activities and increasing availability of nutrient dense foods at household levels. This survey assessed the nutrition status of the sampled households based on universal nutrition indicators and investigated whether households' participation in production of nutrition dense food has created differences in their nutrition status.

5.6.1. Participation in Perma-gardening Production

Over the course of the project's implementation, many households were trained in perma-garden/homestead gardening and reported having production in the last 12 months. This initiative aimed to empower households with knowledge and skills to create sustainable gardens and homesteads. Data collection on Perma gardening status began in year 3, after the initiative had begun.

Over the course of the perma-gardening initiatives, substantial changes were observed from baseline to endline. Initially, 7% of households reported being selected to engage in perma-gardening, which significantly increased to 37.2% of households at the endline assessment. Among those selected to engage in Perma gardening, the percentage of households reporting vegetable production in the last 12 months remained high -83.6% at baseline and 81% at endline. The high production in Tigray at endline is likely at least in part attributable to the vegetable seed distribution implemented by the layered Biruh Tesfa project, which targeted L4R households.

Figure 48: Percent of households who were selected for perma-gardening who had production in the last 12 months by region



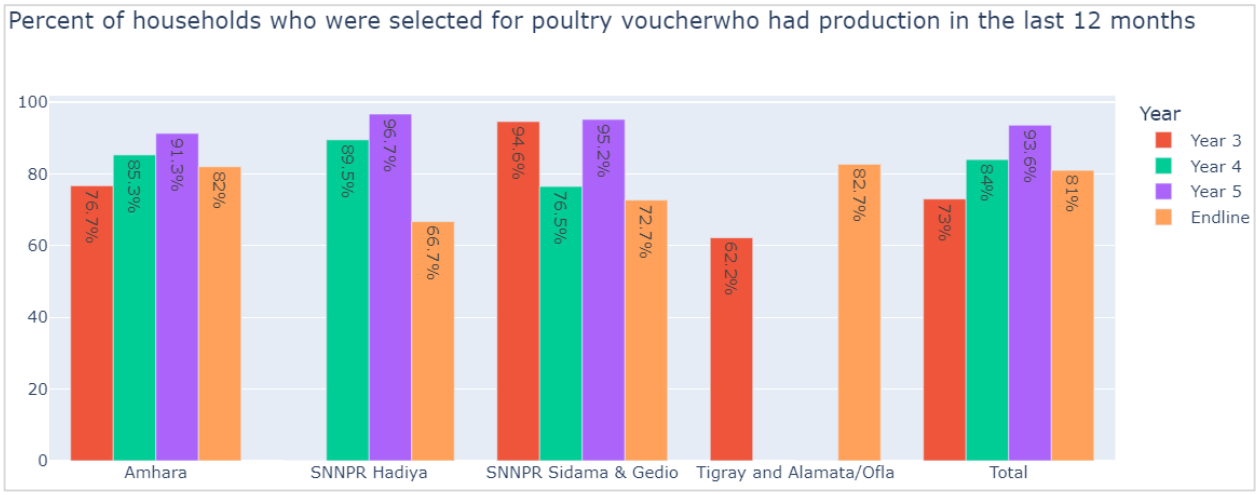
5.6.2. Participation in Poultry Voucher

The project implemented a poultry voucher scheme to increase engagement in poultry production for nutrition. Poultry vouchers covered the cost of poultry feed for 3.5-4.5 months and in some cases also covered the cost of pullets and/or the cost of mesh wire for poultry coop construction. A subset of households were targeted to receive poultry vouchers; these households all received

training in poultry management. At the Endline, 81% of households targeted with poultry vouchers at any point of the project reported producing poultry in the last 12 months – up from 73% at baseline. Among households that did not continue to engage in poultry production, the primary reasons were death of chickens and inability to cover additional costs of production (poultry coop, pullets or feed).

At Endline, 76% of FHH produced poultry in the last 12 months of Household's that received poultry vouchers, while 83.7% of trained MHH did so.

Figure 49: Percent of households who were selected for poultry voucher who had production in the last 12 months



5.6.3. Exclusive Breast Feeding

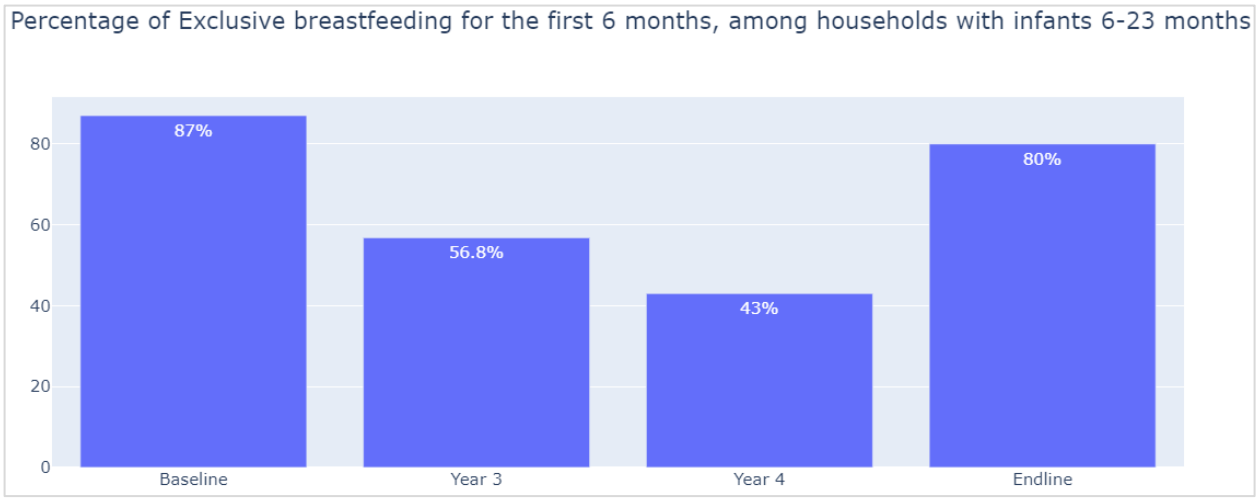
The World Health Organization (WHO) recommends exclusive breastfeeding[7] for the first six months of life (and sustained for up to two years) to ensure optimal health for newborns. Breastfeeding provides essential nutrients to newborns, immunologic protection, and ensures optimal growth and development; it is economical, safe, and is associated with reduced newborn mortality and morbidity. This indicator calculates the number of infants 0-5 months (<6 months) of age who are fed exclusively with breast milk during a specified reference period and is expressed as a percentage of the total number of infants 0−5 months (< 6 months) of age in the same period.[8] The sample size of households that had children with the age of 6-24 months was a subset of the overall cross-sectional sample – at baseline, 192 sampled households had infants with the age of 6-24 months, and at endline, 155 sampled households had infants with the age of 6-24 months. Therefore, the sample sizes are too small to allow disaggregation by region or by MHH/FHH. Refer to annex for a detailed disaggregation of households with children under the age of 24 months Table_A 7: Number of children under the age of 24 month by region [Cross-sectional].

[7] World Health Organization, Exclusive Breastfeeding Rate: Indicator Sheet, n.d.
[8] Ibid

5.6.3.1. Exclusive Breast Feeding: Cross-sectional Analysis

There was a slight decline in average exclusive breastfeeding rates over the survey period: at endline, 80% households with infants 6-23 months had exclusively breastfed their babies for the first 6 months, up from 87% at baseline.

Figure 50: Percentage of infants who were exclusively breastfeed for the first 6 months, among children 6-24 months

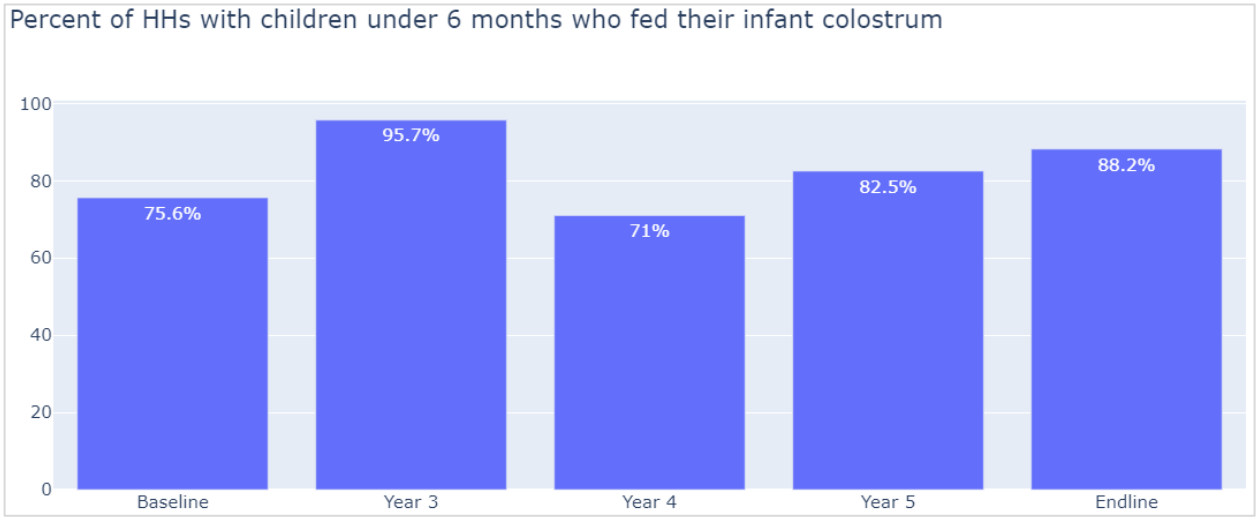


5.6.4. Feeding Infant with Colostrum: Cross-sectional Analysis

Colostrum, the first milk produced by a mother's mammary glands, is rich in essential nutrients and antibodies, making it crucial for a newborn's health and development.

the percentages of mothers feeding their infants with colostrum rose slightly, from 75.6% at baseline to 88.2% at baseline.

Figure 51: Percentage of households with children 0-6 months who feed infant with colostrum



5.6.5. Early Initiation of Breast Feeding

Early initiation of breastfeeding (breastfeeding within an hour of birth) is promoted because it provides newborns with colostrum, which is important for the development of the immune system, and stimulates the production of breastmilk after birth.

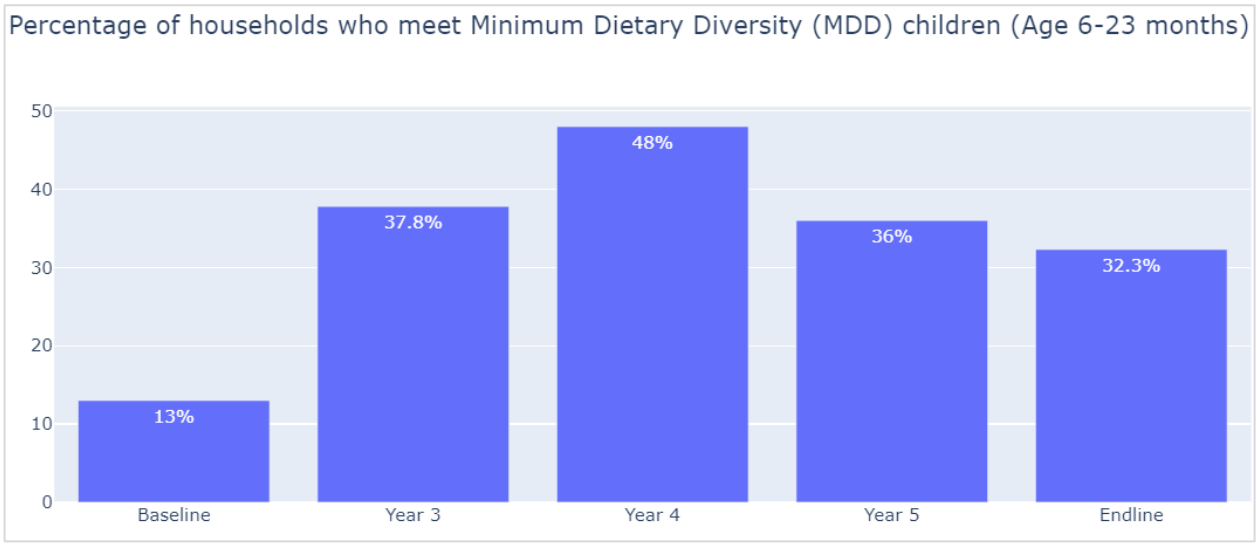
Early initiation of breastfeeding is measured as the percentage of women with children between 0-23 months who breastfed their child within less than an hour after birth. **Early initiation of breastfeeding decreased by 28% among project households from baseline to endline (from 78.8% to 56.9%).**

5.6.6. Minimum Dietary Diversity (MDD) Children (Age 6-23 months): Cross-sectional Analysis

Dietary diversity is a proxy for adequate micronutrient density of foods. Minimum dietary diversity (MDD) assesses food intake among children aged 6-23 months from at least four food groups. The cut-off of four food groups is associated with better-quality diets for both breastfed and non-breastfed children. Consumption of food from at least four food groups means that the child has a high likelihood of consuming at least one animal source of food and at least one fruit or vegetable in addition to a staple food (grains, roots, or tubers). The four food groups are drawn from a list of seven food groups: grains, roots, and tubers; legumes and nuts; dairy products (milk yogurt, cheese); flesh foods (meat, fish, poultry, and liver/organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables.

Children's MDD Increased 148% during the life of the project - from 13% at baseline to 32% at endline. Both MHH and FHH saw significant improvements, with 161% and 123% increases respectively between baseline and endline. There was significant variation in the changes in MDD in children between regions, however the small sample size (155 households at endline had children 6-23 months) makes it challenging to draw any conclusions, particularly in regions with small sample sizes.

Figure 52: Percentage of children 6-23 months who meet MDD (Minimum Dietary Diversity) for children

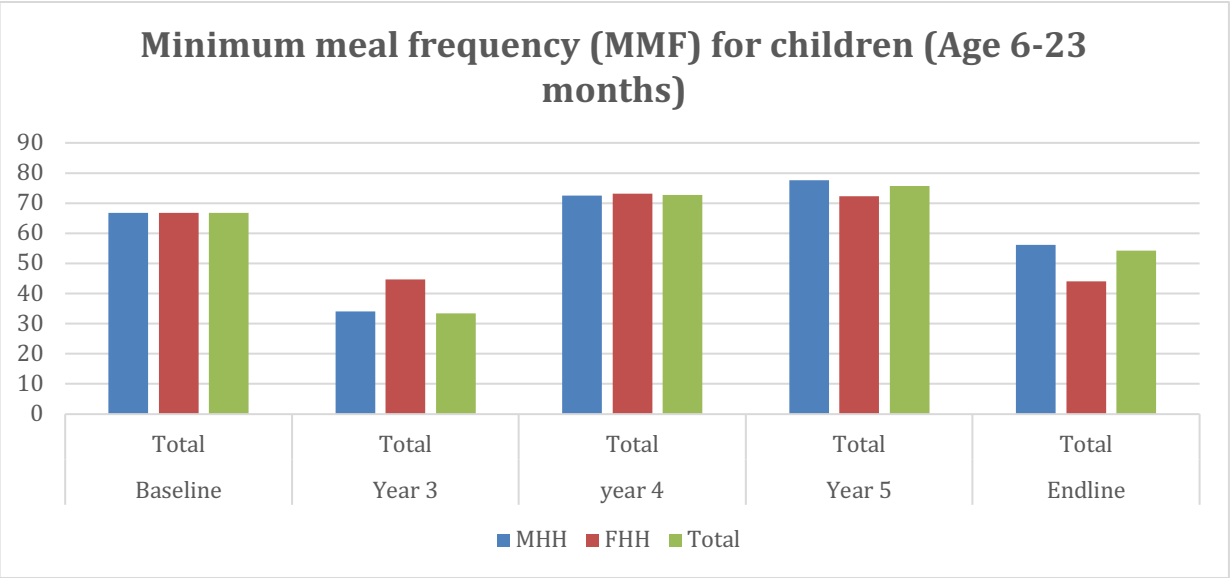


5.6.7. Minimum Meal Frequency (MMF) Children (6-23 months): Cross-sectional Analysis

Minimum meal frequency (MMF) is an indicator that measures the proportion of children 6-23 months of age who consumed solid, semi-solid or soft foods at least the minimum number of times during the previous day. A breastfed child 6-23 month is considered to met MMF if the child was fed of solid, semi-solid or soft foods 3 times for the past 24 hours since the interview time, and a non-breast-fed child 6-23 month is considered to met MMF if the child was fed of solid, semi-solid or soft foods 4 times for the past 24 hours since the interview time. Feeding meals less frequently than recommended by WHO/UNICEF can compromise a child's total energy and micronutrient intake, which in turn may cause stunting and micronutrient deficiencies. Therefore, this indicator measures the proportion of children 6-23 months who consumed meals/snacks at least the recommended number of times.

Overall, MMF declined 19% from baselines to endline (from 67% to 54%). While MHH and FHH were on par in child MMF at baseline, a gap was created at endline, with FHH seeing a greater reduction in MMF than MHH.

Figure 53: Minimum meal frequency (MMF) for children (Age 6-23 months)

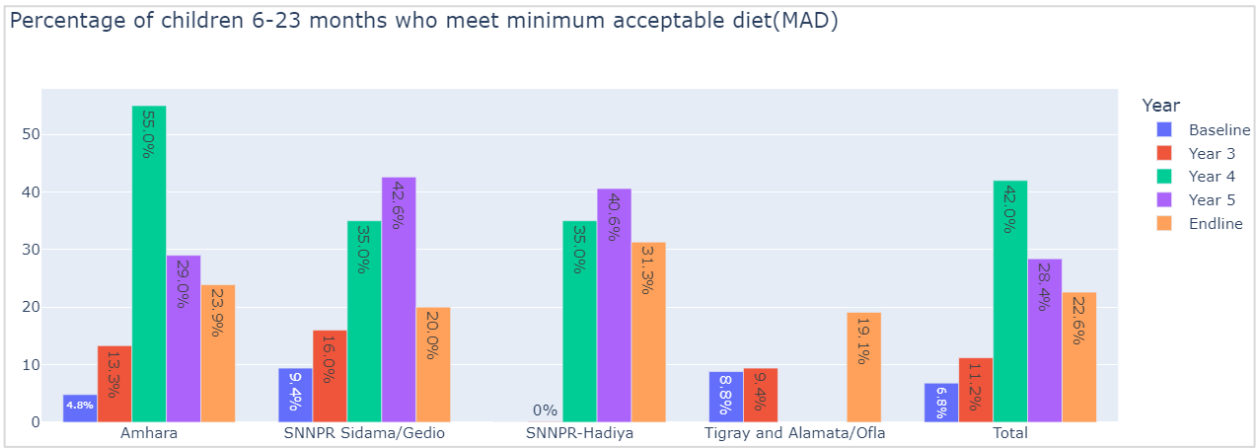


5.6.0. Minimum Acceptable Diet (MAD) Children (Age 6-23 months): Cross-sectional Analysis

To ensure appropriate growth and development, infants and young children should be fed a minimal acceptable diet (MAD). The MAD is a combination of the MDD and MMF. Based on WHO recommendation, minimum acceptable diet is met when children aged 6-23 months achieve minimum dietary diversity and the minimum meal frequency.

The MAD for children aged 6-23 months was 22.6% at endline, which marks a significant increase compared to baseline (6.8%). This increase is due to the significant gains made in minimum dietary diversity. However, when looking at the trends over the life of the project, MAD was highest in year 4, and declined thereafter.

Figure 54: Percentage of children 6-23 months who meet MAD (Minimum Acceptable Diet) for children



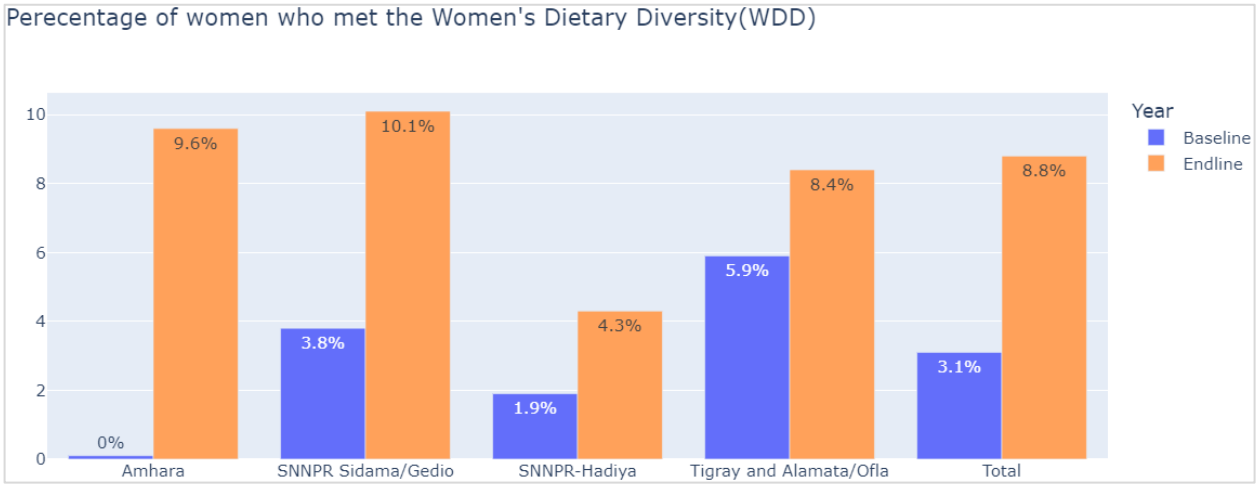
5.6.1. *Women's Dietary Diversity (WDD)*

Women's dietary diversity (WDD) measures whether or not women 15–49 years of age have consumed at least five out of ten defined food groups the previous day or night.[9] The proportion of women 15–49 years of age who reach this minimum in a population can be used as a proxy indicator for higher micronutrient adequacy, one important dimension of diet quality. The ten food groups included in the WDD- indicator are grains, white roots and tubers, and plantains; pulses (beans, peas, and lentils); nuts and seeds (including groundnut); dairy; meat, poultry, and fish; eggs; dark green leafy vegetables; other vitamin A-rich fruits and vegetables; other vegetables; and other fruit. Data for this indicator was collected from adult women in both MHHs and FHHs.

5.6.1.1. Women's Dietary Diversity (WDD): Cross-sectional Analysis

There was a 184% increase in WDD between baseline and endline (from 3.1% to 8.8%), however, MDD still remained low at endline. Due to issues with the analysis is the middle years, only baseline and endline data is considered comparable.

Figure 55: Percentage of households who meet Women's Dietary Diversity (WDD)

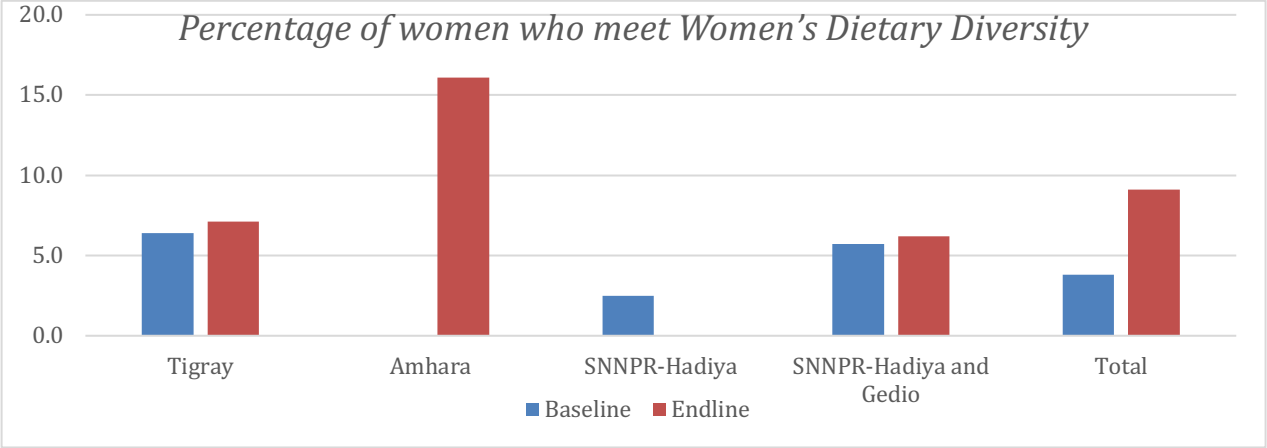


5.6.1.2. Women's Dietary Diversity (WDD): Panel Analysis

The panel analysis showed a similar trend to the cross-sectional data - overall WDD increased from baseline (3.8%) to endline (9.1%). Amhara showed the greatest increase, from no women meeting MDD at baseline, to 16% achieving MDD at endline. Hadiya on the other hand saw a decline in women achieving MDD, from 6% at baseline, to 0% at endline.

[9] Food and Agriculture Organization of the United Nations, Minimum Dietary Diversity for Women: A Guide to Measurement, 2016

Figure 56: Percentage of women who meet Women's Dietary Diversity (WDD)

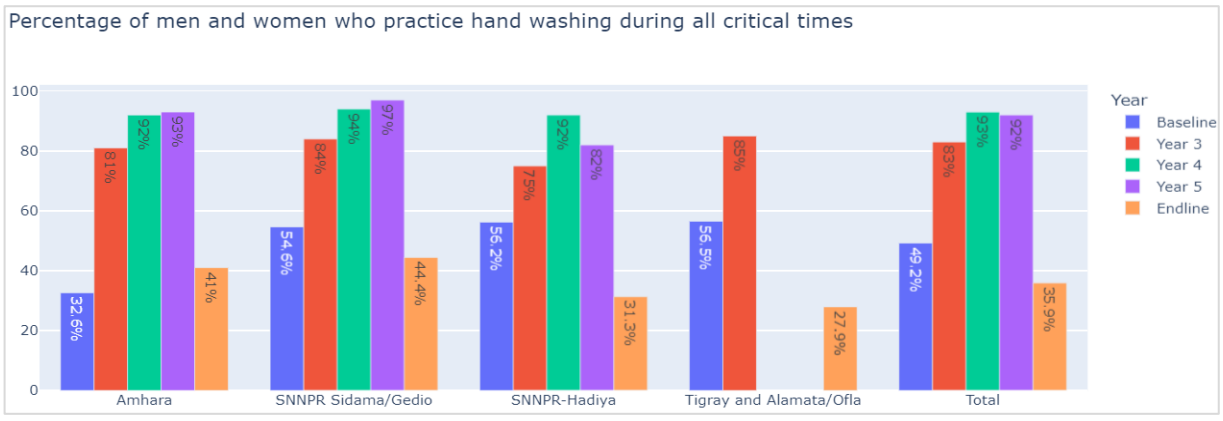


5.6.2. Hand Washing Practice: Cross-sectional Analysis

The hand washing practice indicator measures the proportion of respondents who washed their hands with soap or ash at all critical occasions (these include: after going to the toilet, after attending to a child who defecated, before preparing food, before feeding a child, and before eating) in the past 2 days. Washing hands with soap is the most effective way for preventing diarrheal diseases. This indicator therefore measures whether people (report to) wash their hands with soap or ash at all important moments in the last 24 hours.

Between baseline and endline there was a decline in handwashing, from 49% to 36%. Tigray region reported the most drastic decline, from 57% to 28%.

Figure 57: Percentage of men and women who practiced hand washing during all critical times over time by region



5.6.3. Open Defecation Practice: Cross-sectional Analysis

Over the life of the project, open defecation rates remained at 33%, but the regional results show declines in all regions except Tigray. Rates of open defecation increased significantly in

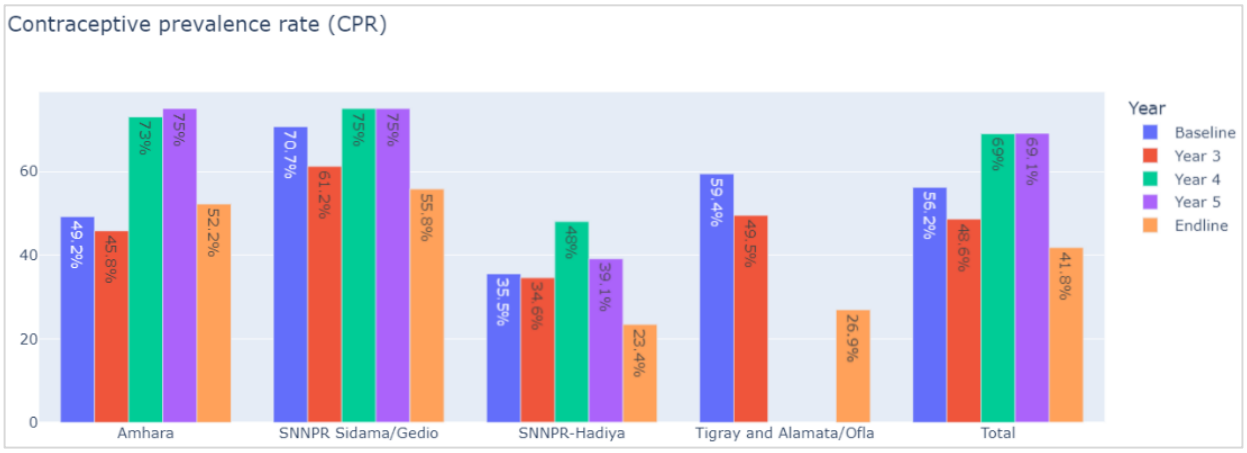
Tigray (from 36.2% to 63.0%) but decreased in Amhara (40.6% to 22.7%), SNNPR-Hadiya (31.7% to 8.3%), and SNNPR-Sidama and Gedeo (13.7% to 2.5%).

5.6.4. Family Planning & Use of Contraceptive Methods: Cross-sectional Analysis

Contraceptive prevalence rate[10] is an indicator that measures the percentage of women aged 15-49 years, married or in-union, who are currently using, or whose sexual partner is using, at least one method of contraception, regardless of the method used. Contraceptive prevalence rate is an indicator of health, population, development, and women's empowerment. It also serves as a proxy measure of access to reproductive health services.

Overall, the Contraceptive Prevalence Rate declined from 56% at baseline to 42% at endline. In Year 3, the rate dropped to 48.6%, before rising again in Year 4 (69.0%) and holding steady in Year 5 (69.1%). The endline data, unfortunately, showed a decrease in contraception use, falling to 41.8%. This decline was particularly significant in Tigray (where the contraceptive prevalence rate fell from 59.4% at baseline to 26.9% at endline), but also quite pronounced in SNNPR-Hadiya (35.5% at baseline to 23.4% at endline) and SNNPR-Sidama and Gedio (70.7% at baseline to 55.8% at endline). Only in Amhara did the use of contraceptives increase slightly (from 49.2% at baseline to 52.2% at endline).

Figure 58: Contraceptive Prevalence Rate (CPR) by region



5.6.1. Household Food Security

5.6.1.1. Food Consumption Score (FCS)[11]

Food Consumption Score (FCS) is used as a proxy indicator of current food security. FCS is a composite score based on dietary diversity, food frequency, and the relative nutritional importance of different food groups consumed over the last 7 days. The subsequent paragraph

[10] WHO, Indicator Metadata Registry List, Contraceptive Prevalence, n.d.
[11] Note: FCS data was collected only at endline, therefore trends for FCS could not be reported

details the question prompt and answer options used in the survey, as well as the methodology used to calculate the FCS.

FCS is calculated using a four-step method that is based on households' food consumption for the past seven (7) days. First, using standard seven-day food frequency data, all food items are grouped into nine specific food groups. Second, the value obtained from each food group is multiplied by its weight and new weighed food group scores are created. Third, the weighted food group scores are summed, thus, creating the FCS. Finally, using thresholds, variable food consumption score is recoded from a continuous variable to a categorical variable to calculate the percentage of households with poor, borderline, and acceptable food consumption. The thresholds for these categories are as follows: "poor" (FCS = 0 to 21); "borderline" (FCS = 21.5 to 35); and "acceptable" consumption (FCS >35). To put this in perspective, the most diversified and best consumption with maximum FCS at 112 means all food groups are consumed seven days a week.

At endline (the only period FCS was measured), 61.8% of sample households had an "acceptable" FCS, 30.9% had a "borderline" FCS, and 7.4% had a "poor" FCS.

The data in **Error! Reference source not found.** presents the endline FCS disaggregated by region. FCS is categorized into three groups: poor, borderline, and acceptable.

SNNPR-Hadiya faces a significant food security challenge, with the majority of households classified as Borderline.

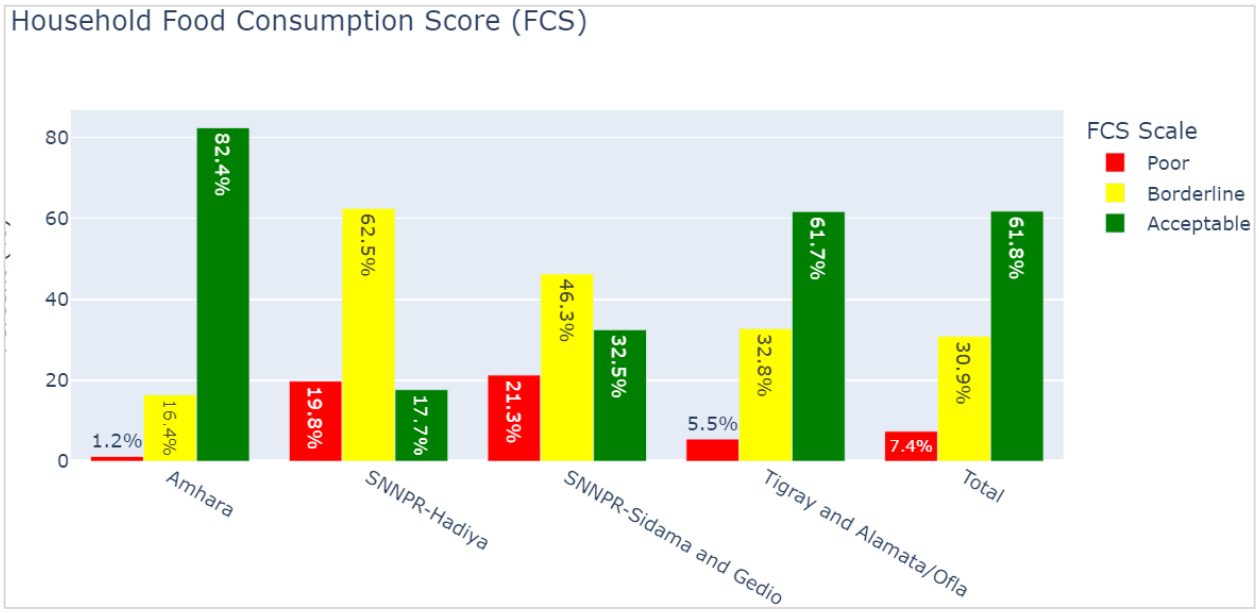
In Tigray and Alamata/Ofla, households with acceptable FCS account for the majority at 61.7%. Borderline households make up 32.8, while 5.5% of households fall into the poor category, indicating relatively good food consumption overall.

In Amhara, the distribution is as follows: 1.2% Poor, 16.4% Borderline, and 82.4% Acceptable. This region has a high percentage of households with an acceptable food consumption score, indicating relatively better food security compared to other regions.

SNNPR-Hadiya region faces a significant challenge, with the majority of households classified as borderline. Similar to SNNPR-Hadiya, SNNPR-Sidama and Gedio region also has a considerable number of borderline households.

In summary, the data reveals variations in food consumption scores across different regions, with Amhara, Tigray and Alamata/Ofla having a relatively higher percentage of households in the acceptable category, while SNNPR-Hadiya and SNNPR-Sidama and Gedio face more significant food security challenges with higher percentages of borderline and poor FCS households.

Figure 59: Household Food Consumption Score (FCS) at endline by region



5.6.1.2. Food Insecurity Experience Scale (FIES): Cross-sectional Trend Analysis

The survey also assessed the food security status of the sampled households using the Food Insecurity Experience Scale (FIES) which is a measure of access to food at the individuals or households' levels. FIES measures the severity of food insecurity based on how respondents answer questions about their ability to obtain sufficient food. Women in the sampled households and men in MHH where there was no adult woman present were asked the FIES questions to capture the varying degrees of food shortages experienced by the household, as women are often responsible for food preparation and feeding. Two versions of the FIES tool were applied – a 12-month version (which was used at baseline) and a 30-day tool, to see whether there was an improvement towards the end of the project.

12-month FIES:

After a significant increase from baseline to Year 3, food security levels declined sharply during the second half of the project and are lower at endline than at baseline. At endline, 4% of L4R households were food secure for the entire year, down from 16% at baseline. The proportion of households experiencing severe food insecurity also increased over time, with 59% of L4R households experiencing severe food insecurity in the last year at endline, up from 31% at baseline.

Table 13: Households Food Insecurity Experience Scale (FIES) over time, 12-month recall over time by region

FIES 12-month Recall	Disaggregated by Region

		Tigray and Alamata/Ofla		Amhara		SNNP-Hadiya		SNNPR-Sidama and Gedio		Total	
		%	n	%	n	%	n	%	n	%	n
Baseline	Food secure	30	125	9	32	6	6	1	2	**16%**	**165**
	Moderately food insecure	61	255	63	229	21	22	36	65	**54%**	**571**
	Severely food insecure	9	37	28	101	73	76	63	115	**31%**	**329**
Year 3	Food secure	49	203	43	172	44	36	39	57	**45%**	**468**
	Moderately food insecure	17	72	25	99	12	10	6	9	**18%**	**190**
	Severely food insecure	34	141	33	131	43	35	55	81	**37%**	**388**
Year 4	Food secure			38	152	7	6	10	16	**27%**	**174**
	Moderately food insecure			33	129	5	5	16	26	**25%**	**160**
	Severely food insecure			29	116	88	82	74	120	**49%**	**318**
Year 5	Food secure			21	85	14	12	19	29	**19%**	**126**
	Moderately food insecure			28	117	30	26	33	50	**30%**	**193**
	Severely food insecure			51	210	56	49	47	71	**51%**	**330**
Endline	Food secure	2	6	7	30	0	0	1	1	**4%**	**37**
	Moderately food insecure	39	151	42	182	28	27	27	43	**38%**	**403**
	Severely food insecure	59	227	51	220	72	69	73	116	**59%**	**632**

These findings illustrate the various challenges experienced by households, including the northern conflict, and the effects of inflation on food prices, all of which have contributed to the worsening of food insecurity.

Figure 60: Households Food Insecurity Experience Scale (FIES) over time, 12-month recall

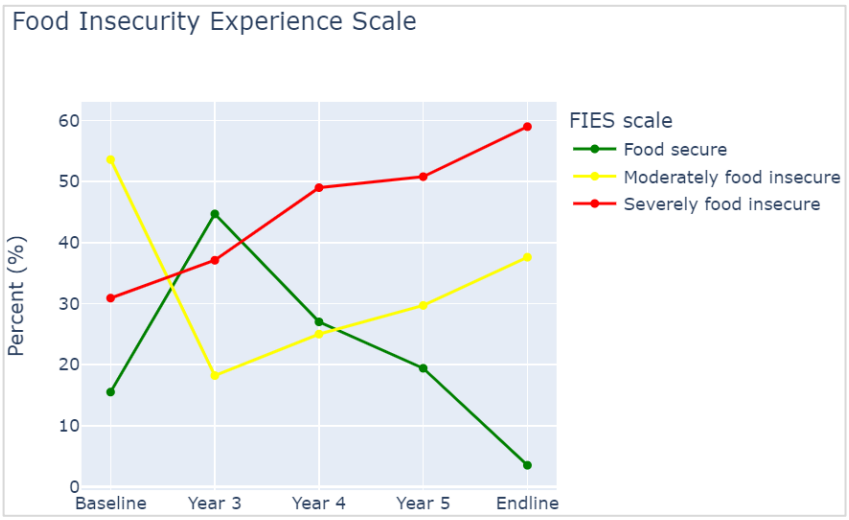


Figure 61: Percentage of households who were food secure by region (FIES, 12-month recall)

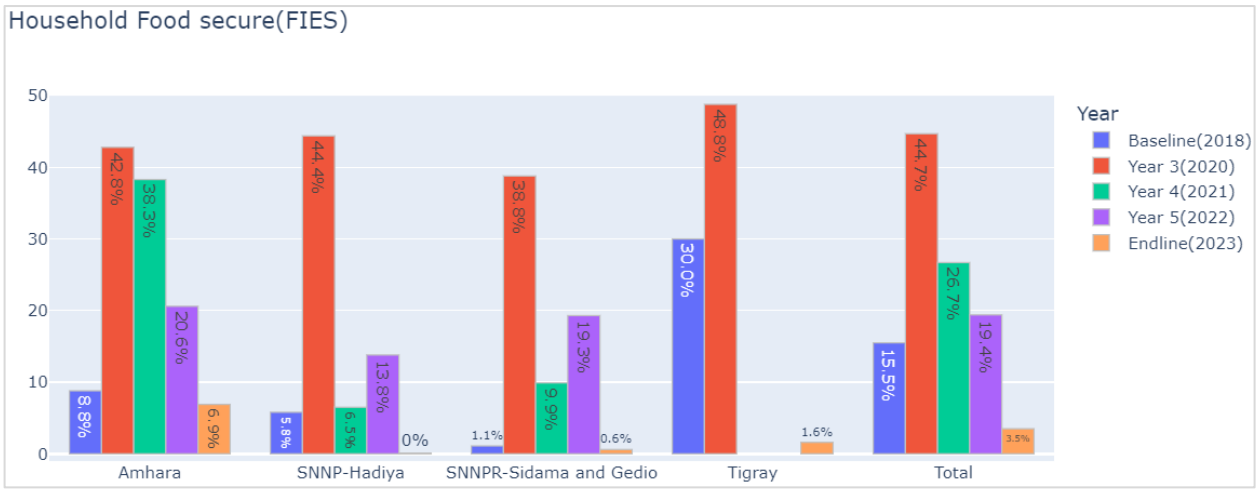
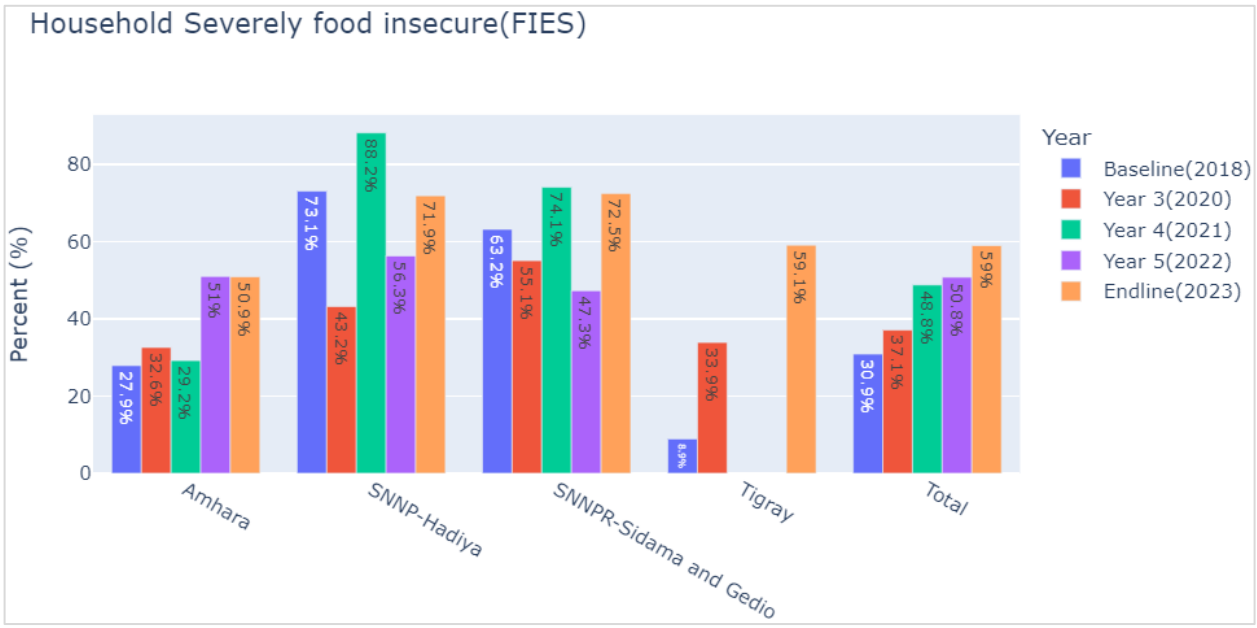


Figure 62: Percentage of households severely food insecure by region (FIES)



30-day FIES:

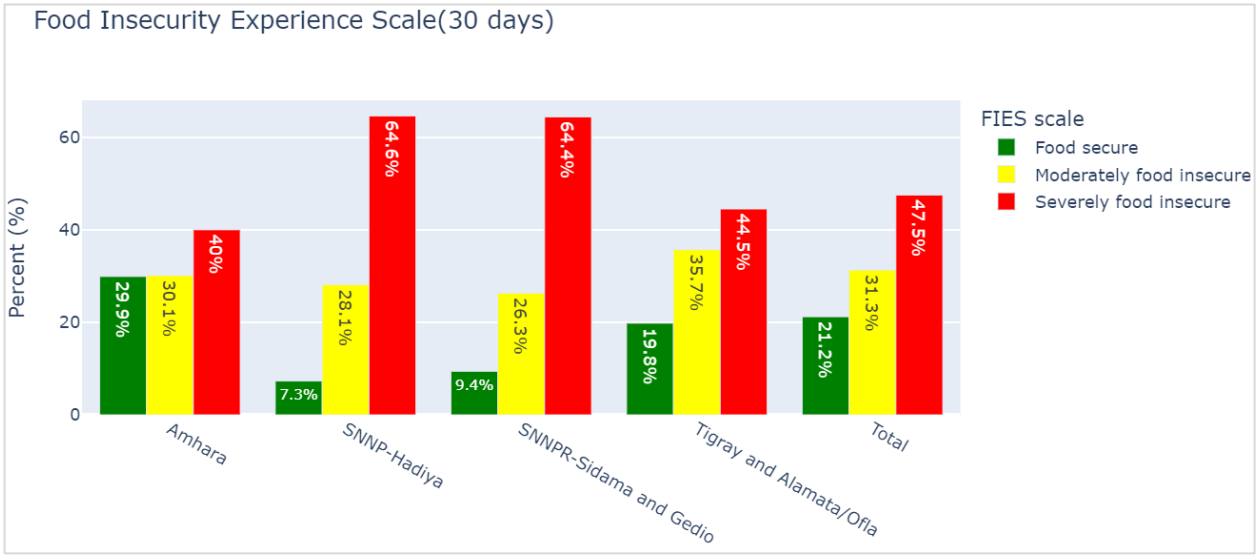
The FIES 30-day recall data highlights improved food security compared to the 12-month FIES, with 21% of households food secure, 31% moderately food insecure, and 48% severely food insecure in the last 30 days.

There continues to be varying degrees of food security challenges across different regions with the 30-day FIES, with SNNP-Hadiya and SNNPR-Sidama and Gedio experiencing the highest prevalence of severely food insecure households. In SNNP-Hadiya, 64.6% of households fall into the severely food insecure category, while in SNNPR-Sidama and Gedio, this figure is 64.4%. Food secure households constitute the smallest group in both regions, accounting for just 7.3% and 9.4%, respectively. Additionally, a significant portion of households, 28.1% in SNNP-Hadiya and 26.3% in SNNPR-Sidama and Gedio, are classified as moderately food insecure.

In Tigray and Alamata/Ofla, there is also a substantial food security challenge, with 44.5% of households classified as severely food insecure. Moderately food insecure households make up 35.7%, while food secure households represent the smallest category at 19.8%. This suggests that Tigray and Alamata/Ofla are also facing a significant food security challenge, with a majority of households experiencing moderate to severe food insecurity.

In Amhara, the distribution of food security categories is relatively balanced, with 29.9% of households being food secure, 30.1% moderately food insecure, and 40.0% severely food insecure. While this region faces food security challenges, it is not as severely affected as the other regions.

Figure 63: Households Food Insecurity Experience Scale (30-day recall) at endline



5.6.1.3. FIES: Panel Trend Analysis

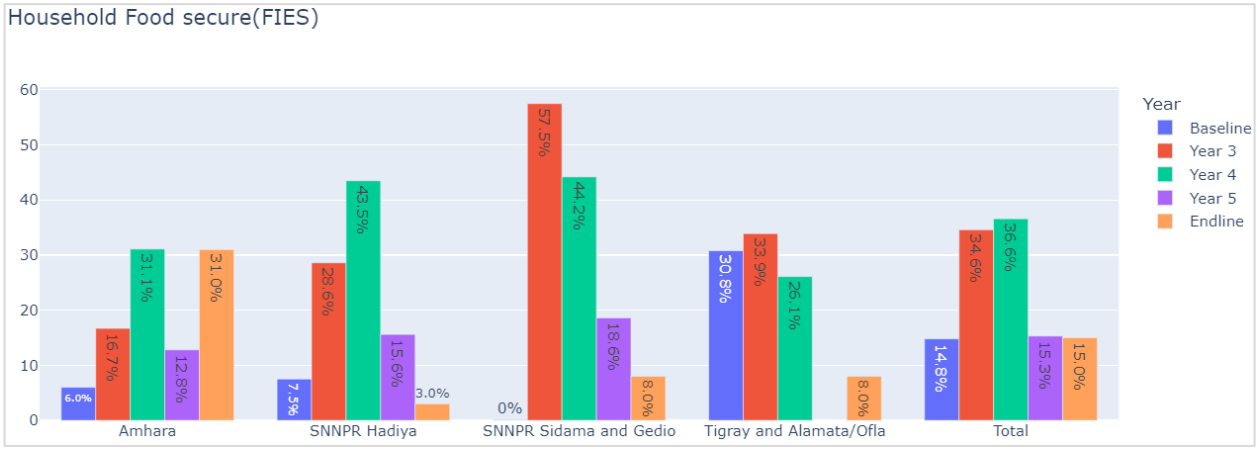
Panel households exhibited significantly better food security at endline than households in the cross-sectional sample using the 12-monthg FIES. **Among panel households, "food secure" (12-month recall) remained constant from 14.8% at baseline to 15% at endline, though "severe food insecurity" increased from 31% to 49.0% between baseline and endline.**

Table 14: Households Food Insecurity Experience Scale (FIES) Overtime 12-month recall

FIES 12-month Recall	Tigray and Alamata/Ofla		Amhara		SNNPR-Hadiya		SNNPR Sidama and Gedio		Total	
	%	N	%	N	%	N	%	N	%	N
Baseline										
Food secure	30.8	48	6.0	8	7.5	3	0.0	0	**14.8**	**59**
Moderately food insecure	59.6	93	67.2	90.0	20.0	8.0	40.0	28.0	**54.8**	**219.0**
Severely food insecure	9.6	15	26.9	36.0	72.5	29.0	60.0	42.0	**30.5**	**122.0**
Year 3										
Food secure	33.9	19	16.7	7.0	28.6	6.0	57.5	23.0	**34.6**	**55.0**
Moderately food insecure	33.9	19	47.6	20.0	38.1	8.0	15.0	6.0	**33.3**	**53.0**
Severely food insecure	32.1	18	35.7	15.0	33.3	7.0	27.5	11.0	**32.1**	**51.0**
Year 4										
Food secure	26.1	6	31.1	14.0	43.5	10.0	44.2	19.0	**36.6**	**49.0**
Moderately food insecure	69.6	16	53.3	24.0	17.4	4.0	25.6	11.0	**41.0**	**55.0**

Severely food insecure	4.3	1	15.6	7.0	39.1	9.0	30.2	13.0	**22.4**	**30.0**
Year 5										
Food secure			12.8	12.0	15.6	5.0	18.6	13.0	**15.3**	**30.0**
Moderately food insecure			17.0	16	50.0	16	38.6	27	**30.1**	**59**
Severely food insecure			70.2	66	34.4	11	42.9	30	**54.6**	**107**
Endline										
Food secure	8.0	11	31.0	40	3.0	1	8.0	5	**15.0**	**57**
Moderately food insecure	38.0	54	35.0	45	38.0	15	31.0	20	**36.0**	**134**
Severely food insecure	55.0	78	33.0	42	59.0	23	62.0	40	**49.0**	**183**

Figure 64: Panel households who were food secure (FIES), 12-month recall



The FIES 30-Day recall data for panel households also highlights improvements in food security compared to the 12-month recall panel FIES, though there is significant regional variation. Using the 30-day recall, 22% of households were food secure, 39% were moderately food insecure, and 39% were severely food insecure overall. Sidama region and Gedio zone in SNNPR region exhibit the lowest food secure rate (3.1%) and highest rate of severely food insecure individuals (72.3%). Amhara region has relatively better food security, with 40.9% of panel households food secure, and 26.8% severely food insecure. Panel households in Tigray had significantly better food security in the last 30 days compared to the last year (16% and 8% respectively), and much lower severe food insecurity in the last 30 days as well (27%, compared to 55% in the 12-month recall).

Table 15: Panel Households Food Insecurity Experience Scale (FIES)- 30 days recall

FIES 30-days Recall	Tigray and Alamata/Ofla		Amhara		SNNPR-Hadiya		SNNPR Sidama and Gedio		Total	
	%	N	%	N	%	N	%	N	%	N

Food secure	16.1	23	40.9	52	10.3	4	3.1	2	**21.7**	**81**
Moderately food insecure	56.6	81	32.3	41	23.1	9	24.6	16	**39.3**	**147**
Severely food insecure	27.3	39	26.8	34	66.7	26	72.3	47	**39.0**	**146**

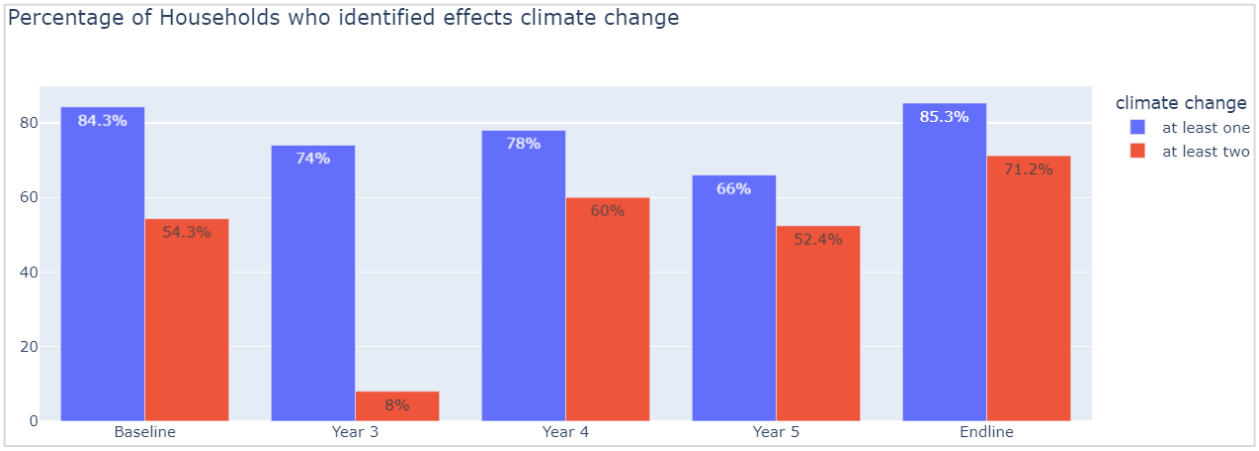
5.7. Climate Change and Resilience: Cross-sectional Analysis

This section assesses participants' awareness of climate change, adaptation mechanisms and reports on the extent to which adaptation mechanisms helped households cope with adverse climate change induced events. While activities during the final year of the L4R cost-extension did not specifically address climate change adaptation, data was collected at endline to measure retention of knowledge and continuation of practices.

5.7.1. Knowledge on Climate Change

The endline data provided strong evidence of the project's enduring impact. There was a large increase in households who could identify two or more effects of climate change between baseline and endline (from 54% to 71%) and a slight increase in households who could identify one more effect of climate change (from 84% to 85%).

Figure 65: Percentage of Households who identified effects of climate change



When disaggregated by region, there were sharp increases in Amhara and Tigray in households who can identify 2 or more effects of climate change, while Hadiya remained the same, and there was a small decrease in Sidama and Gedio.

Figure 66: Percentage of households who identified at least two climate change by region

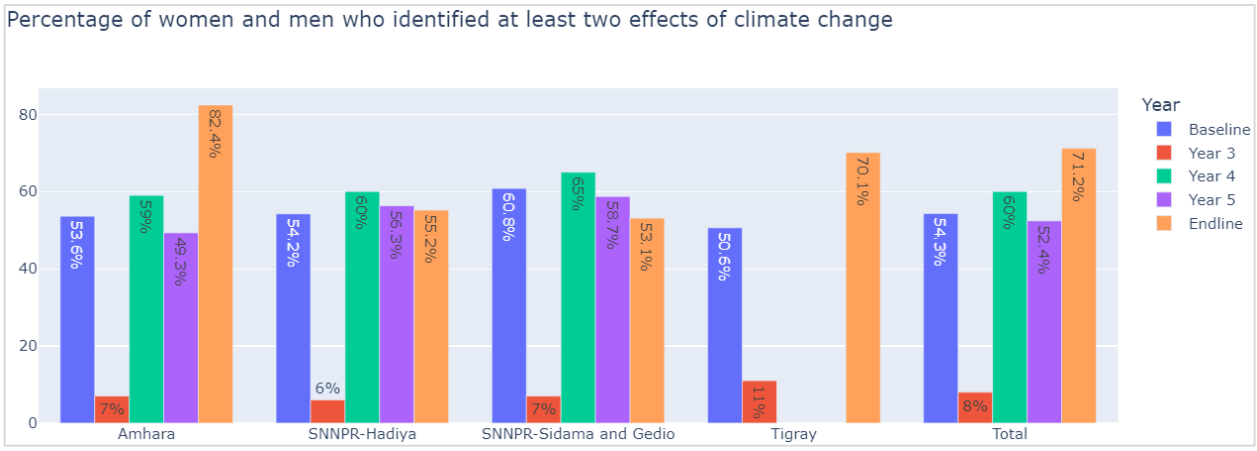
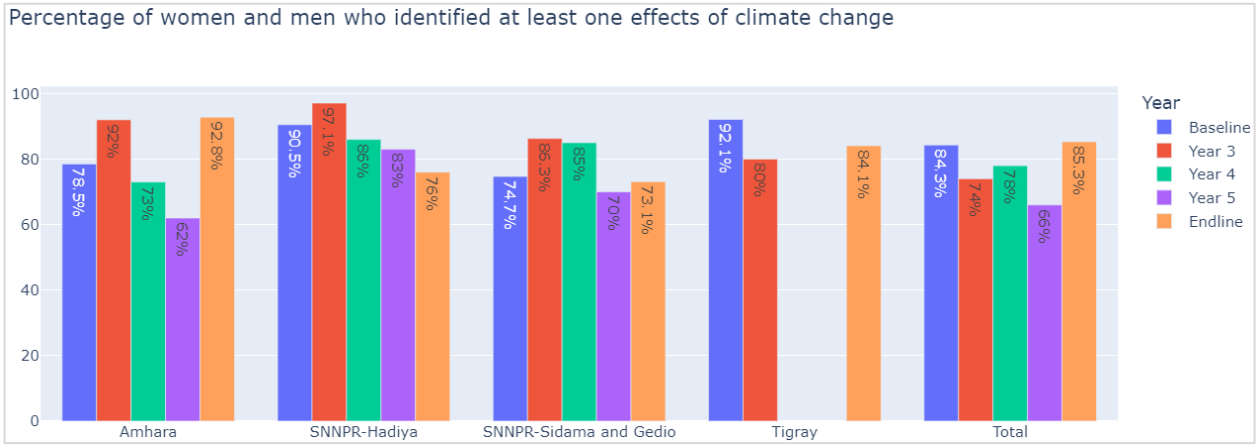


Figure 67: Percentage of households who identified at least one climate change by region



5.7.2. Adoption of Climate Change Adaptation (CCA) Practices

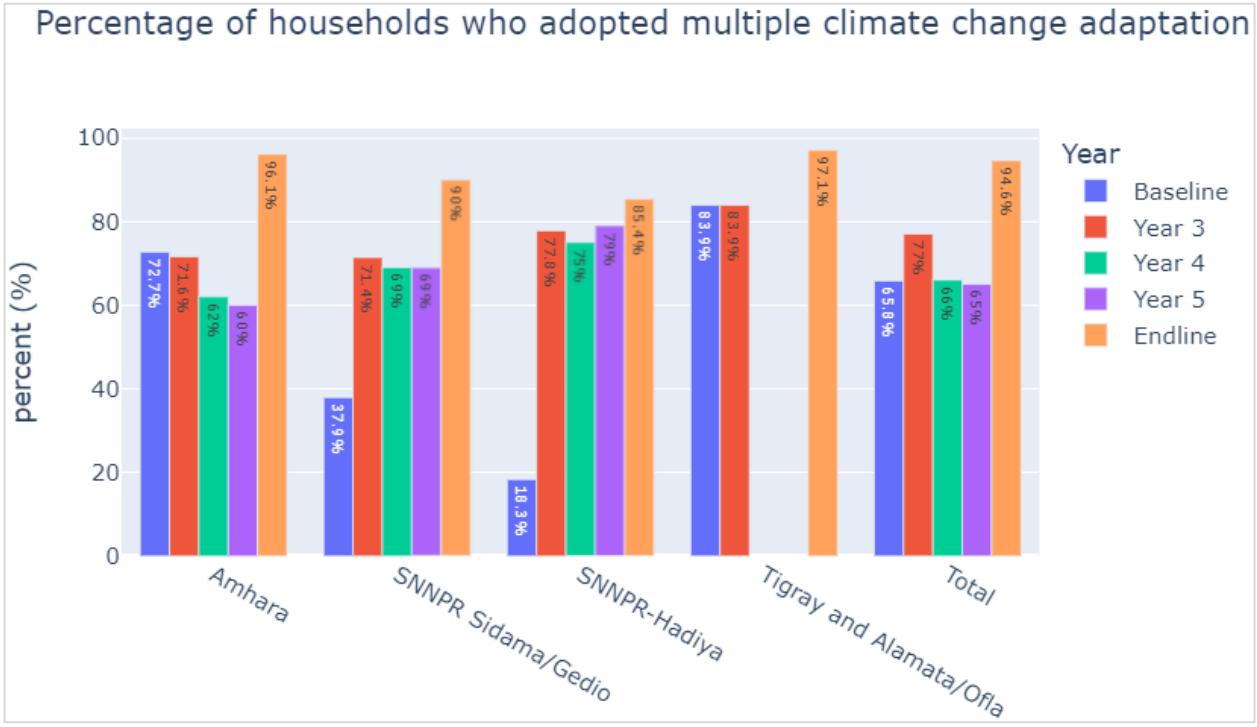
Over and above assessing knowledge on climate change, this assessment also collected information on adoption of climate change adaptation (CCA) practices by households interviewed. The project encouraged households to implement multiple adaptation mechanisms to increase their absorptive capacity for climate change related shocks.

5.7.2.1. Adoption of Climate Change Adaptation Practices: Cross-sectional Analysis

At endline, 94.6% of households reported having adopted at least two climate change adaptation practices, up 44% from a baseline of 65.8%. As the project unfolded, a significant surge in the adoption rate occurred, reaching an impressive 77.0% in year 3. This substantial increase signifies that the interventions implemented during this period effectively influenced households to embrace multiple adaptation strategies. It serves as a strong indicator of the project's impactful contributions. The subsequent year, despite minor fluctuations in specific regions, there was a favorable adoption rate of 66.0%. The stability in adoption persisted into Year 5, with an overall rate of 65.0%. The project culminated with a rate of 94.6% of households adopting multiple

climate change adaptation practices, a testament to its substantial impact in strengthening household climate resilience. The endline data revealed a remarkable transformation in the surveyed regions, indicating that the project had significantly enhanced communities' ability to adapt to the challenges posed by climate change.

Figure 68: Percentage of households who adopted multiple climate change adaptation practices by region

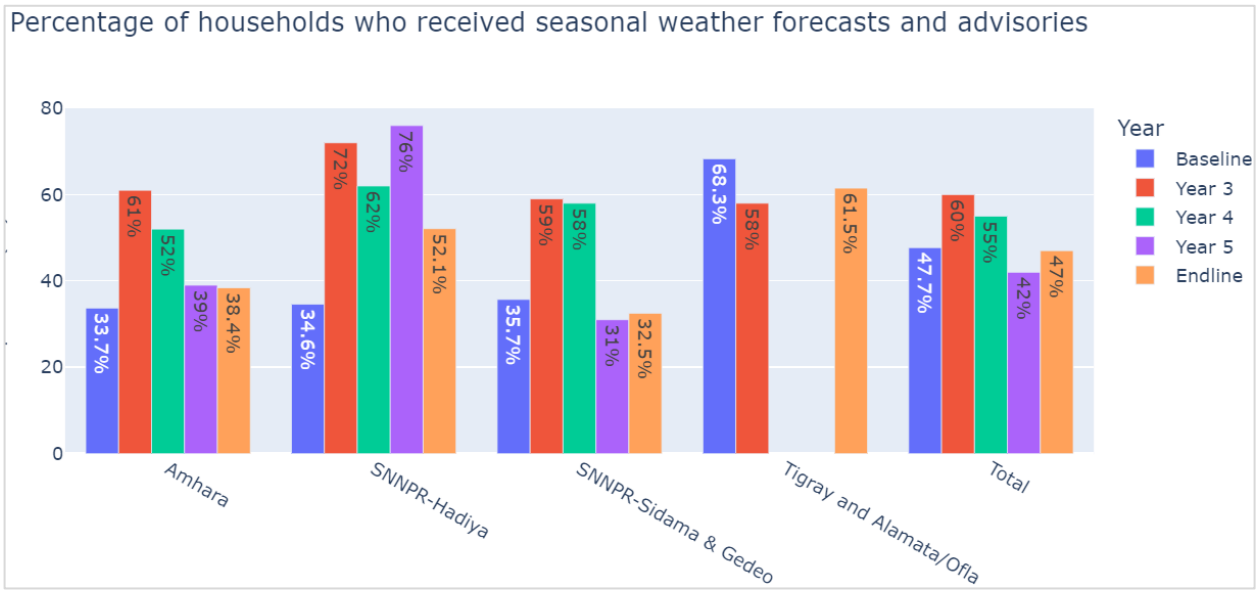


5.7.3. Seasonal Weather Forecasts and Advisories

The project facilitated dissemination and implementation of seasonal weather forecasts and advisories generated from participatory scenario planning exercises. This sub-section assesses to what extent these seasonal weather forecasts were accessible to the target households, to what extent the advisories were deemed useful, and applied by households. These activities were not actively supported by the project during the cost extension but were measured at endline to determine the sustainability of the advisories, their timeliness and usefulness.

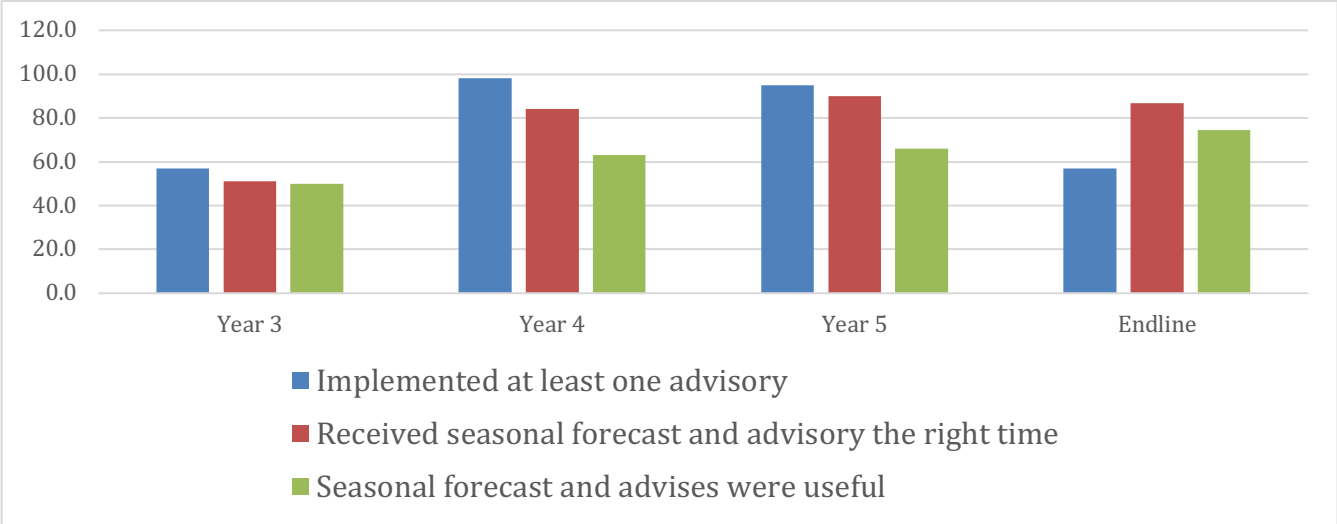
At endline, 47% of L4R households reporting having received seasonal weather forecasts and advisories—a percentage that is nearly identical to the baseline figure of 47.7%. This suggests that, despite some highs in years 3 and 4 when the project invested significantly in availing these forecasts to households, households' access to weather information was virtually unchanged over the life of the project. Households in Amhara and SNNPR-Hadiya reported increases in access to seasonal forecasts and advisories over the life of the project, while households in Tigray and SNNPR-Sidama and Gedio reported slight decreases.

Figure 69: Percentage of households who received seasonal weather forecasts and advisories



From Year 3 (the first year in which questions about advisories were posed) to endline, there was a significant improvement in the reported usefulness and timeliness of advisories, but very little change in the percentage of households reporting having implemented at least one advisory. At endline, among households who received seasonal weather forecasts and advisories, 56.9% reported having implemented at least one advisory, 86.7% reported that they had received the forecast and advisories at the right time, and 74.5% reported that they were useful. The percentage who reported having implemented at least one advisory is virtually the same as Year 3 (57%), but marks a decline from years 4 and 5, when 95-98% of households who received an advisory reported having implemented it.

Figure 70: Percent of households who implemented at least one CCA, received advisories at the right time, and found them useful



5.7.4. Contribution of VESA Participation to Cope with Shocks

5.7.4.1. Contribution of VESA Participation to Cope with Shocks: Cross-sectional Analysis

The endline survey asked households to reflect on which aspects of participation in project-supported activities contributed the most significantly to their capacity to cope with shocks. Most households rated each component of the project as being "very important", with VESA savings, receiving inputs for free, and VESA loans being reported the most frequently. This underscores the importance of having savings within the VESA framework, as it provides a financial cushion during challenging times. VESA loans also play a crucial role, with 66.4% of respondents deeming them "Very important." Access to loans through VESAs can provide vital financial support when facing unexpected shocks. The majority of VESA members (53-54%) also reported that the VESA social fund and social support from the VESA were very important in coping with shocks.

Figure 71: The contribution of various aspects of project participation to cope with difficult times

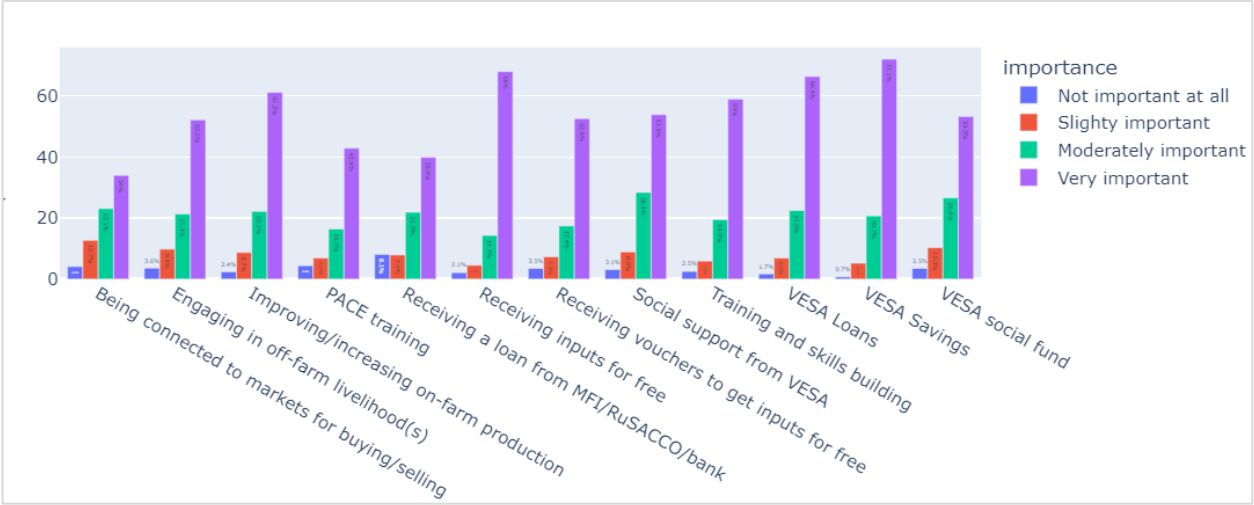


Table 16: Households' perception on L4R impact VESA components

Households' perception on L4R impact		Tigray and Alamata/Ofla	Amhara	SNNPR-Hadiya	SNNPR-Sidama and Gedio	MHH	FHH	Total
VESA Savings	Not important at all	1.6	0.0	1.0	0.0	0.8	0.3	0.7
	Slightly important	6.0	3.5	5.2	8.1	5.8	3.9	5.2
	Moderately important	15.9	25.9	22.9	16.9	23.2	15.3	20.7
	Very important	75.5	69.9	64.6	74.4	69.0	79.0	72.1

	Not applicable	1.0	0.7	6.3	0.6	1.2	1.5	1.3
VESA Loans	Not important at all	1.8	0.5	6.3	1.9	1.8	1.5	1.7
	Slightly important	5.7	6.0	8.3	11.3	7.5	5.7	6.9
	Moderately important	19.3	27.3	22.9	16.9	25.5	15.9	22.5
	Very important	71.9	63.0	55.2	69.4	62.5	75.1	66.4
	Not applicable	1.3	3.2	7.3	0.6	2.8	1.8	2.5
VESA social fund	Not important at all	7.0	0.5	4.2	2.5	3.5	3.3	3.5
	Slightly important	12.5	8.3	10.4	10.0	9.9	11.1	10.3
	Moderately important	22.9	31.3	21.9	25.6	28.3	22.8	26.6
	Very important	52.1	53.0	49.0	59.4	51.6	56.9	53.3
	Not applicable	5.5	6.9	14.6	2.5	6.6	6.0	6.4
Social support from VESA	Not important at all	6.3	0.0	6.3	1.9	3.1	3.0	3.1
	Slightly important	9.1	8.6	7.3	10.0	8.3	10.2	8.9
	Moderately important	24.2	33.8	25.0	25.6	31.0	22.5	28.4
	Very important	53.9	52.5	51.0	59.4	52.0	58.1	53.9
	Not applicable	6.5	5.1	10.4	3.1	5.6	6.3	5.8

Linkages to finance and markets were also important to households. "Receiving a Loan from MFI/RuSACCO/Bank" was rated as "Very important" by 39.9% of respondents. This external source of financial support also contributes significantly to coping with shocks. Tigray and Alamata/Ofla stand out with the highest percentage at 47.4%, followed closely by Amhara at 44.9%. In SNNPR-Hadiya and SNNPR-Sidama and Gedio, a large proportion of households responded, “not applicable”, reflecting the lower rates of financial inclusion in these areas. Both male-headed and female-headed households share relatively similar perceptions in access to microfinance loans.

When it comes to being connected to markets for buying and selling, the data indicates that this is generally considered important by respondents. A slight majority of households rate it as either "Moderately important" or "Very important." Households in Amhara rate market connections particularly highly—42.1% of households said that being connected to markets was “very important”, and 31.9% said that it was “moderately important”.

Table 17: Households’ perception on L4R impact loan and connection to market

Households’ perception on L4R impact		Tigray and Alamata/Ofla	Amhara	SNNP - Hadiya	SNNPR-Sidama and Gedio	MHH	FHH	Total
Receiving a loan from MFI/RuSACCO/ bank	Not important at all	6.8	7.4	21.9	5.0	8.0	8.4	8.1
	Slightly important	7.0	8.6	2.1	11.9	7.9	8.1	7.9
	Moderately important	22.7	24.8	17.7	15.0	24.0	17.4	21.9
	Very important	47.4	44.9	12.5	25.0	39.4	41.0	39.9
	Not applicable	16.1	14.4	45.8	43.1	20.7	25.1	22.1
Being connected to markets for buying/selling	Not important at all	5.5	3.5	5.2	1.9	4.6	3.0	4.1
	Slightly important	12.8	11.6	13.5	15.0	13.7	10.5	12.7
	Moderately important	15.4	31.9	25.0	16.9	24.1	21.0	23.1
	Very important	27.1	42.1	30.2	31.3	33.7	34.7	34.0
	Not applicable	39.3	10.9	26.0	35.0	23.8	30.8	26.0

In terms of livelihood strategies, both improving/increasing on-farm production and engaging in off-farm production were recognized as important in terms of coping with difficult times. 61.2% of households said that "Improving/Increasing On-Farm Production," was "very important.", while 22.2% said that it was “moderately important”. Amhara leads with the highest percentage (70.8%) of respondents emphasizing its significance, closely followed by SNNPR-Sidama and Gedio at 68.8%. 52.2% of participants rated engaging in an off-farm livelihood as being very important, while 21.3% reported it as moderately important. SNNPR-Hadiya emerges as the frontrunner in recognizing the significance of off-farm livelihoods, with a striking 72.9% of households deeming these activities as "Very Important." This region, characterized by its emphasis on off-farm strategies, showcases a strong commitment to bolstering resilience through diversification.

Table 18: Households’ perception on livelihood strategies’ contribution to resilience

Households’ perception on L4R impact		Tigray and Alamata/Ofla	Amhara	SNNPR-Hadiya	SNNPR-Sidama and Gedio	MHH	FHH	Total
Improving/increasing on-farm production	Not important at all	5.2	0.7	3.1	0.0	2.0	3.3	2.4
	Slightly important	14.3	3.2	12.5	7.5	8.5	9.0	8.7
	Moderately important	25.5	21.5	16.7	19.4	22.1	22.5	22.2
	Very important	47.1	70.8	61.5	68.8	62.6	58.1	61.2
	Not applicable	7.8	3.7	6.3	4.4	4.7	7.2	5.5
Engaging in off-farm livelihood(s)	Not important at all	6.3	1.6	3.1	3.1	3.9	3.0	3.6
	Slightly important	11.7	7.9	6.3	12.5	9.8	9.9	9.8
	Moderately important	23.7	22.9	10.4	17.5	20.7	22.5	21.3
	Very important	38.0	60.4	72.9	51.9	51.6	53.6	52.2
	Not applicable	20.3	7.2	7.3	15.0	14.0	11.1	13.1

Households also rated free inputs highly, likely due to the low availability and high price of inputs at endline, as noted above. 68% of households said that “receiving inputs for free” was very important, and 52.6% of households said the same of "Receiving Vouchers to Get Inputs for Free". Over two-thirds of households in Amhara, Tigray and Alamata, and SNNPR-Sidama and Gedeo rate free access to inputs as "Very important."

Lastly, "Receiving vouchers to get inputs for free" is also viewed positively. A substantial proportion of respondents in all regions consider it "Moderately important" or "Very important." Tigray and Alamata/Ofla and SNNPR-Hadiya show comparatively lower percentages in these categories, because more households indicated that it was “not applicable” to them.

Table 19: Households' perception on L4R impact, improving on free inputs and inputs vouchers

Households' perception on L4R impact		Tigray and Alamata/Ofla	Amhara	SNNPR-Hadiya	SNNPR-Sidama and Gedio	MHH	FHH	Total
Receiving inputs for free	Not important at all	3.1	0.9	5.2	1.3	2.2	2.1	2.1
	Slightly important	7.0	2.8	5.2	2.5	4.6	4.2	4.5
	Moderately important	14.1	14.8	15.6	12.5	14.9	12.9	14.3
	Very important	69.3	71.1	51.0	66.9	67.3	69.5	68.0
	Not applicable	6.5	10.4	22.9	16.9	11.0	11.4	11.1
Receiving vouchers to get inputs for free	Not important at all	6.0	1.4	6.3	1.9	3.8	3.0	3.5
	Slightly important	11.5	4.6	6.3	5.0	6.6	8.7	7.3
	Moderately important	16.1	17.6	18.8	18.8	16.1	20.1	17.4
	Very important	43.8	61.1	43.8	56.3	55.0	47.3	52.6
	Not applicable	22.7	15.3	25.0	18.1	18.4	21.0	19.2

Regarding PACE training, SNNPR-Sidama and Gedio stand out with the highest percentage (68.8%) of households considering it "Very Important".

When it comes to training and skills building, a substantial percentage of households across all regions consider it "Very Important." SNNPR-Sidama and Gedio have the highest percentage (63.1%) of households emphasizing the importance of training and skills building. Amhara follows closely with 61.3% of households deeming it "Very Important."

Table 20: Households' perception on L4R impact PACE training and skill building

Households' perception on L4R impact		Tigray and Alamata/Ofla	Amhara	SNNPR-Hadiya	SNNPR-Sidama and Gedio	MHH	FHH	Total
PACE training	Not important at all	8.3	2.8	3.1	0.0	4.6	3.9	4.4
	Slightly important	7.3	7.4	10.4	2.5	7.6	5.4	6.9
	Moderately important	16.9	16.9	21.9	10.6	16.5	16.2	16.4
	Very important	37.8	39.6	35.4	68.8	41.2	46.7	42.9
	Not applicable	29.7	33.3	29.2	18.1	30.1	27.8	29.4

Training and skills building	Not important at all	3.9	0.9	8.3	0.0	2.4	2.7	2.5
	Slightly important	7.6	4.9	9.4	2.5	5.4	6.9	5.9
	Moderately important	20.3	19.4	31.3	10.6	19.9	18.6	19.5
	Very important	59.4	61.3	40.6	63.1	58.5	60.2	59.0
	Not applicable	8.9	13.4	10.4	23.8	13.7	11.7	13.1

5.8.Household Graduation from PSNP[12]

5.8.1. Household Graduation: Cross-sectional Analysis

At baseline, 100% of Livelihoods for Resilience households were in the PSNP, as this was a key targeting criterion for project participation. By endline, only 46-57% of households in SNNPR-Sidama and Gedio, SNNPR-Hadiya, and Amhara were still in the PSNP (46.3% of households in SNNPR-Sidama and Gedio, 56% of households in Amhara, and 57.3% of households in SNNPR-Hadiya). Households that were no longer in the PSNP, were considered to have graduated from the PSNP, which represents graduation rates of 43% to 54% for those regions. Tigray is the outlier, with 90.1% of households reporting still being in the PSNP at endline – this was because the process to graduate households from the PSNP, as well as to conduct targeting to enroll households in PSNP 5 were suspended due to the conflict in northern Ethiopia. There were significant differences between female-headed and male-headed households, as 79% of female-headed households reported still being in the PSNP at endline, compared to 61.4% of male-headed households.

The desire to graduate decreased over time, likely reflecting the increase in shock exposure and decrease in food security experienced by households. At endline, only 5.4% of non-graduated households reported wanting to graduate from the PSNP, down from 25.6% at baseline.

At the endline, among households who reported not wanting to graduate, the primary reason was related to food security, with 75.7% of households highlighting worries about their ability to feed their families if they graduated from the PSNP. Smaller percentages of households who didn't want to graduate reported other concerns: 13.8% of households said they were afraid of missing out on access to credit or other opportunities that come through the PSNP, while 10.5% of households reported wanting to stay in the PSNP just in case of a shock.

Although the *desire* to graduate decreased over time, the *confidence* to graduate increased significantly, although it remains lower than targeted levels. The confidence to graduate in the next year doubled between baseline and endline, and the confidence to graduate in the next two years increased significantly as well: at endline, 36.3% of households said that they were "very

[12] Note: In this section, only endline data is reported due to data discrepancies between previous surveys and endline

confident" or "somewhat confident" that they could graduate in the next 1-2 years, up from just 20% at baseline.

5.8.2. Household Graduation: Panel Analysis

At endline, a slightly higher percentage of households reported feeling "ready" to graduate in the next 1-2 years than at baseline. The trends for the panel households are similar to those for households in the cross-sectional survey, but the improvement is not as pronounced. At endline, 12.6% of panel households reported feeling "very confident" or "somewhat confident" to graduate in one year, up from 7.8% at baseline. When the timeline is shifted to two years, 24.3% of households reported feeling "very confident" or "somewhat confident" to graduate, up only slightly from 22% at baseline.

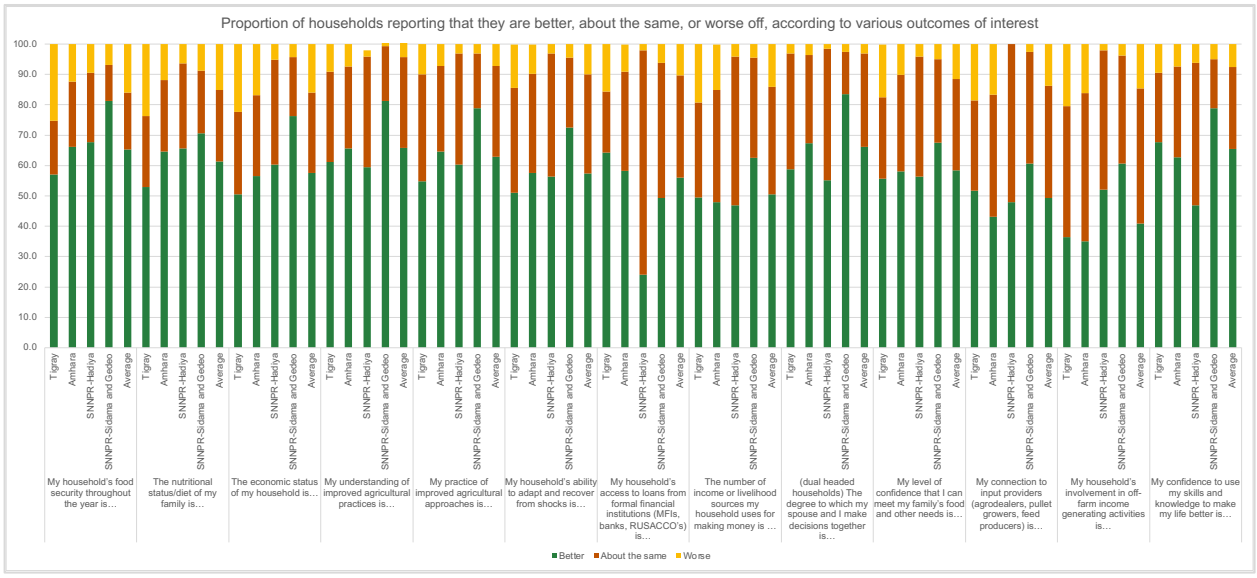
As with the cross-sectional sample, the panel households reported their biggest reason for not wanting to graduate as being the fear of not being able to feed their family (82.7%).

5.9.Households' Perception on L4R impact: Cross-sectional Analysis

On most outcomes of interest, the majority of L4R households reported that they were doing better at endline than when they joined L4R, and only a small percentage (3-16%) reported that they were doing worse. Households reported their highest levels of improvement in the degree to which spouses make decisions together (66% reported that this was better at endline than when they joined), understanding of improved agricultural practices (66%), confidence to use skills and knowledge to improve their lives (66%), food security (65%)—though this one is surprising given the increase in reported food insecurity as reported earlier in this report—, and nutritional status (61%). Fifty-nine percent (59%) reported that their ability to meet their family's food needs is better than before the project. Fifty-eight percent (58%) of households reported improvements in their economic status, 57% reported that their ability to adapt and recover from shocks is better, and 56% reported their access to loans from formal financial institutions is better than before the project. The only outcomes of interest in which a majority of households did not report improvement were connections to input providers (49% reported that these were better, while 37% reported that they were about the same) and involvement in off-farm income generating activities (41% reported that they were better, and 45% reported that they were about the same).

SNNPR-Sidama and Gedio had the highest proportion of households reporting that their situation was "better" for nearly every indicator for which data was collected. The only exception was access to loans from formal financial institutions (where Tigray respondents were the most likely to say their access was now better). Tigray had the highest proportion of households reporting that their situation was "worse" for nearly every indicator compared to other regions, though the proportion was still less than those reporting that things were "better".

Figure 72: Proportion of households reporting that they are better, about the same, or worse off than before joining L4R, by various outcomes of interest



5.10. Social Support: Cross-sectional Analysis

Given L4R households' high exposure to shocks, the endline report included a series of questions on where households received support during recent challenging periods. Overall, 54.4% of households reported receiving support in the last challenging time, while 55.5% reported not received support from anyone during the last challenging time. The most frequently cited sources of assistance were family members/relatives (24.2%) and VESA members (21.8%). Other community members/friends were cited by 6.9% of households, while local business owners were cited by 1.5 of households. This suggests a reliance on close-knit social networks and communities for support during challenging times, with regional variations in the prevalence of these sources. It also demonstrates the contribution of VESA's as a source of solidarity and support beyond the official functions of the VESA.

Regarding the types of support received, "Family members/relatives" primarily offered financial support, food, and psycho-social support, while "VESA members" played a significant role in providing financial support and inputs/service for free. "Other community members/other friends" were involved in offering financial support and psycho-social support, and "Local business owners" contributed through financial support and loaning food/inputs/materials on credit.

Regarding how helpful the support received was, shopkeepers as the most likely to be rated as "very helpful" (44%), among those who received support from them (n=16) followed by VESA members (38%).

When asked which source of support was more important to them in the last difficult time, VESA members and family were both rated as most important (44%), followed by other community members (10%), and then shop keepers (1.3%).

Table 21: Percentage of households by who they received help from during the last challenging period by region

	Tigray		Amhara		SNNPR-Hadiya		SNNPR-Sidama and Gedio		Total	
	%	N	%	N	%	N	%	N	%	N
Family members/relatives	25.8	384	24.1	432	32.3	96	15.6	160	24.2	1072
VESA members	14.1	384	28.5	432	7.3	96	31.3	160	21.8	1072
Other community members/ other friends	6.5	384	7.9	432	6.3	96	5.6	160	6.9	1072
Local business owner	0.8	384	1.2	432	2.1	96	3.8	160	1.5	1072
No one helped me	59.9	384	49.5	432	58.3	96	57.5	160	55.2	1072

Households were also asked who they helped during the last difficult time. Overall, 24% of households reported that they had helped someone. When asked who they helped, the most common response was family members (48%), followed by other community members (44%), other relatives (27%) and VESA members (9%). Financial support, food, and psychosocial support were the most common supports provided.

Table 22: Percentage of households who supported others during their last challenging period by region

	Tigray		Amhara		SNNPR-Hadiya		SNNPR-Sidama and Gedio		Total	
	%	N	%	N	%	N	%	N	%	N
Percentage of households who help someone during the last challenging period faced by members of their community	20.1	384	23.8	432	18.8	96	35.0	160	23.7	1072
Members of community members whom the household given to										
Immediate family members	35.1	77	51.5	103	66.7	18	33.9	56	43.7	254
Other relative(s)	27.3	77	34.0	103	22.2	18	14.3	56	26.8	254
VESA member(s)	10.4	77	15.5	103	5.6	18	7.1	56	11.4	254
Other community members/friends	45.5	77	41.7	103	50.0	18	60.7	56	47.6	254
Local business owner (shopkeeper, trader, mill operator, etc.)	0.0	77	1.0	103	5.6	18	0.0	56	0.8	254

5.11. Youth Engagement

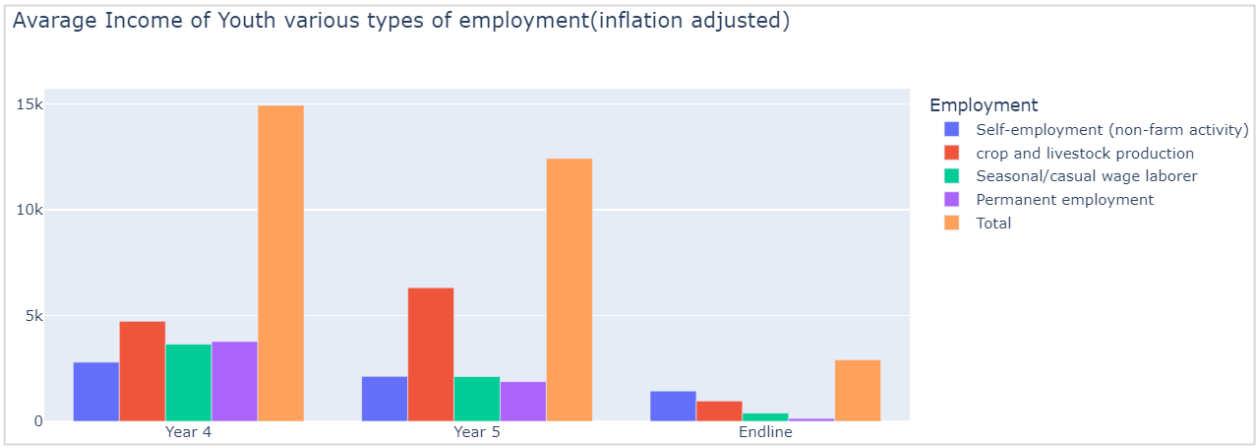
The project provided life-skill training to young people and connected them with Technical and Vocational Education Trainings (TVETs) to acquire vocational skills that could potentially lead to self-employment or wage employment. This sub-section presents findings from the youth sample that were separately sampled from list of project youth. Data collection for the youth sample was collected starting in year 4 through endline – thus there is no baseline or year 3 youth data.

5.11.1. Youth Income

Youth incomes at endline averaged ETB 2,906 annually in nominal terms, which represents an increase of 264% from baseline in real, inflation-adjusted terms.

Regarding income derived from the various youth employment pathways (on-farm, off-farm, casual/seasonal and permanent employment), the highest reported average annual income in year 4 and 5 was from crop and livestock self-employment. However, at endline, self-employment (non-farm activity-petty trade, barbershop etc.) became the source of the highest average annual income.

Figure 73: Youth income from various livelihood pathways, among those who engaged in them



5.11.2. Youth VESA Participation

Across implementation areas, 90.4% of youth engaged by the project reported having joined a VESA in the last 5 years, of which 92.5% were still active members of a VESA. There was similar current VESA membership among both male and female youth (91.6% and 93.7% respectively). This indicates a strong appeal and relevance of VESA initiatives among young individuals, and highlights the project's effectiveness in attracting youth to be members in VESAs.

The proportion of youth who had joined a VESA in the last 5 years showed regional variation, with Tigray and Amhara having nearly all project youth organized into VESAs (98.3% and 94.7% respectively). SNNP recorded lower rates of youth having joined a VESA in the last 5 years – 76.9% in Sidama and Gedio, and 46.2% in Hadiya. The data indicates that the commitment of these youth to their VESA remains substantial, with a high percentage of them still actively participating in VESA at the endline survey. Across all regions and genders, youth continue to engage with their VESAs, showcasing the sustainability and success of the platform in retaining young members. This data underscores the critical role VESAs can play in youth empowerment and economic engagement, making it a valuable platform for fostering financial and social resilience.

Table 23: Percentages of youth who joined VESA in the last five years

	Male		Female		Tigray and Alamata/Ofla		Amhara		SNNPR -Hadiya		SNNPR-Sidama and Gedio		Total	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Percentage of Youth who joined VESA in the last five years	89	178	92.3	143	98.3	119	94.7	160	46.2	12	76.9	30	90.4	321
Percentage of youth who are still a member of VESA (At endline)	91.6	163	93.7	134	95.8	114	89.4	143	100	12	93.3	28	92.5	297

5.11.3. Youth Training

The data on youth participation in various training programs was collected only in years 4, 5 (excluding Tigray) and endline (all regions). The proportion of youth who had been training in Be Your Own Boss (BYOB) peaked at endline, with 69.6% of youth engaged by the project trained. Tigray, Amhara and Hadiya reported similar levels of BYOB training at endline, ranging from 65%-69%, while 97.4% of youth in Sidama and Gedio reported being trained in BYOB at endline.

Youth who received other technical and vocational training was somewhat lower, with 33.5% of youth reporting receiving these trainings at endline. Similar to the regional trends above, for technical and vocational trainings Tigray, and Amhara and Hadiya reported similar levels ranging from 29% - 34.6%, while 64.5% of youth in Sidama and Gedio reported receiving technical and vocational training at endline.

Male and female youth reported similar levels of both BYOB and vocational and technical trainings at endline.

Table 24: Percentage of youth who took Be Your Own Boss and technical and vocational trainings by gender

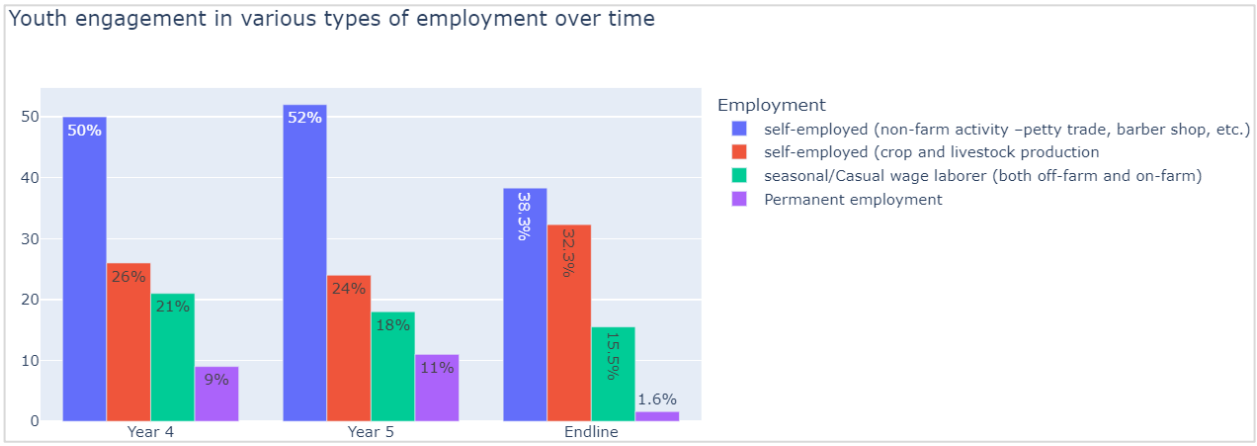
Youth who took various trainings		Male		Female		Total	
		%	N	%	N	%	N
Year 4	Percent of youth who took BYOB training	40	115	45	78	42	193
	Percent of youth who trained in technical and vocational training	9	115	5	78	7	193
Year 5	Percent of youth who took BYOB training	25	133	41	68	30	201
	Percent of youth who trained in technical and vocational training	68	133	63	68	66	201
Endline	Percent of youth who took BYOB training	69.5	200	69.7	155	69.6	355
	Percent of youth who trained in technical and vocational training	32	200	35.5	155	33.5	355

5.11.4. Youth Employment

At endline, 84.5% of interviewed youth reported being engaged in either self-employment or wage employment at the time of the interview, up from 77% in Year 4[13]. Male youth reported higher rates of employment, at 91%, than female youth, at 76%. All regions reported overall youth employment rates of 80% or higher.

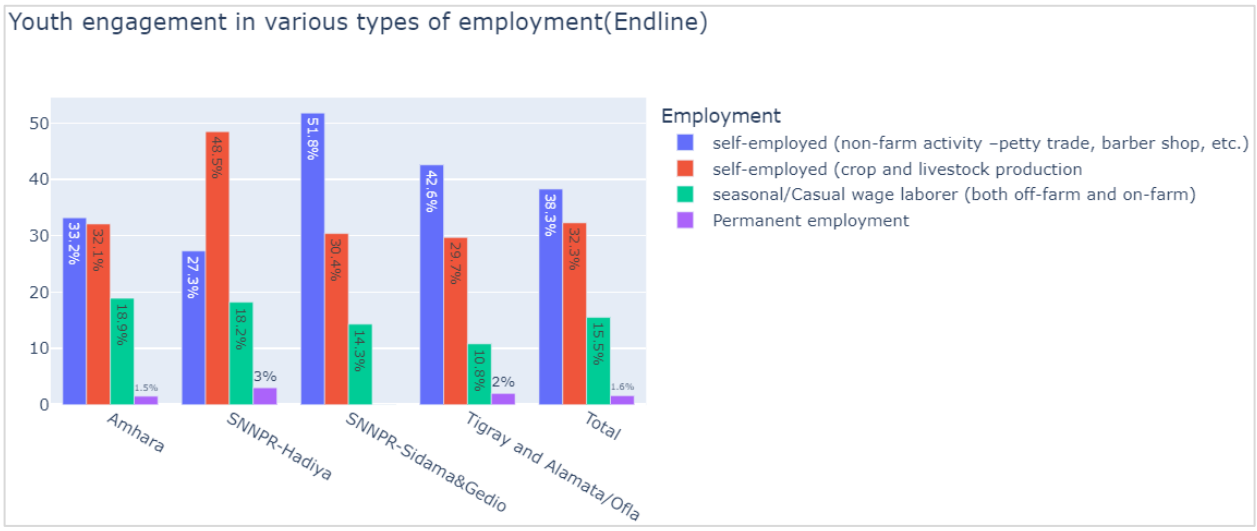
In terms of employment types, from the overall data, the type of employment that appears to be highest among youth across all years and regions is self-employment in non-farm activities (e.g., petty trade, barber shop, etc.). At endline, 38.3% of youth reported being engaged in non-farm self-employment, while 32.3% reported engagement in crop and livestock-related self-employment, 15.5% of youth reported being engaged in seasonal or casual wage, and only 1.6% of youth reported being engaged in wage employment. An analysis of trends from Year 4 to endline reveals an increase in crop and livestock self-employment (from 26% to 32.3%) and a decline in all other types of employment. Gender variations in employment types were significant: self-employment in non-farm activities was much higher among female youth (50.3%) than male youth (30.1%), while male youth were nearly twice as likely as female youth to engage in self-employment in crop and livestock production, and nearly three times as likely to engage in seasonal/casual labor.

Figure 74: Percentage of youth who engaged in various types of employment



[13] This question was also asked at baseline, but of a different sample of youth, so the results are not comparable

Figure 75: Percentage of youth who engaged in various types of employment by region



5.11.5. Youth Saving

Regarding saving at endline, 76.1% of youth reported saving, with an average of 4,062 ETB in savings (nominal). Youth savings were highest at endline in SNNPR- Hadiya (14,236ETB) and lowest in SNNPR- Sidama and Gedio (1,212 ETB). Male youth had significantly greater savings (5,291 ETB) than female youth (2,477 ETB).

Regional variations in savings practices were relatively small: at endline, Amhara reported the highest percentage of youth who saved (78.7%) with SNNPR-Gedio and Sidama reporting the lowest (69.2%). In terms of sex of youth, males were more likely to save (80.5%) than female (70.3%).

Table 25: Percentage of youth who saved in various financial institutions

Male		Female		Tigray and Alamata/ Ofla		Amhara		SNNPR-Hadiya		SNNPR-Sidama &Gedio		Total	
%	N	%	N	%	N	%	N	%	N	%	N	%	N
80.5	200	70.3	155	74.4	121	78.7	169	76.9	226	69.2	39	76.1	355

Table 26: Average annual saving over the last 12 month, among all youth (ETB)

Male	Female	Tigray and Alamata/Ofla	Amhara	SNNPR-Hadiya	SNNPR-Sidama and Gedio	Total
5291	2477	1326	5114	14236	1212	4062

Regarding access to savings institutions, at endline, youth primarily utilized VESAs (81.9%), followed by banks (34.4%), MFI (12.2%), iqub (11.9%), and RuSACCOs (5.9%). Tigray and

Alamata/Ofla reported the highest utilization of VESA (97.8%) with the lowest reported by SNNPR-Hadiya (40%). Female youth were slightly more likely (90.8%) than male youth (75.8%) to have saved in VESAs, but Male youth more than two times as likely to have saved in banks (44.1%) than female youth (20.2%).

Table 27: Percentage of youth who saved in various saving institutions in the last 12 months

	Male		**Female**		**Tigray and Alamata/Ofla**		**Amhara**		**SNNPR Hadiya**		**SNNPR Sidama and Gedio**		**Total**	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Year 5														
VESA	89.9	99	93	57			88.5	87	95	21	93.8	48	91	156
RuSACCOs	3	99	3.5	57			2.3	87	14.3	21	0	48	3.2	156
MFI	18.2	99	14	57			26.4	87	4.8	21	4.2	48	16.7	156
Bank	33.3	99	28.1	57			20.7	87	38.1	21	47.9	48	31.4	156
Iqub	12.1	99	5.3	57			0	87	23.8	21	18.8	48	9.6	156
Endline														
VESA	75.8	161	90.8	109	97.8	90	78.9	133	40.0	20	74.1	27	81.9	270
RuSACCO	8.7	161	1.8	109	0.0	90	10.5	133	5.0	20	3.7	27	5.9	270
MFI	13.7	161	10.1	109	4.4	90	18.8	133	10.0	20	7.4	27	12.2	270
Bank	44.1	161	20.2	109	11.1	90	45.9	133	55.0	20	40.7	27	34.4	270
Iquib	11.2	161	12.8	109	8.9	90	9.0	133	20.0	20	29.6	27	11.9	270

5.11.6. Youth Access to credit

Access to loans followed the same trend as general access to savings institutions. At endline, the largest portion of youth who obtained loans accessed them from VESAs (63.1%) followed by MFIs (39.6%), RuSACCOs (9.4%) and banks (2.7%).

Table 28: Percentage of youth who accessed loans from different institutions at endline

	Male		**Female**		**Tigray and Alamata/Ofla**		**Amhara**		**SNNPR-Hadiya**		**SNNPR-Sidama and Gedio**		**Total**	
	%	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**
VESA	54.9	82	73.1	67	71.6	81	50.8	61	50	4	100	3	63.1	149
RuSACCOs	15.9	82	1.5	67	1.2	81	21.3	61	0	4	0	3	9.4	149
MFI	46.3	82	31.3	67	49.4	81	27.9	61	50	4	0	3	39.6	149
Bank	2.4	82	3	67	0	81	6.6	61	0	4	0	3	2.7	149

At endline, 51.2% of youth reported access to some form of finance for working capital in the last 5 years—76% from a loan only, 18.6% from a grant only, and 5.5% from both a loan and a grant.

Table 29: Youth financial access to working capital over the past five years

	Male		Female		Tigray and Alamata/ Ofla		Amhara		SNNPR-Hadiya		SNNPR-Sidama and Gedio		Total	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Loan only	73.3	74	79.3	65	88.2	75	76.3	58	36.4	4	18.2	2	76.0	139
Grant only	18.8	19	18.3	15	4.7	4	19.7	15	63.6	7	72.7	8	18.6	34
Both	7.9	8	2.4	2	7.1	6	3.9	3	0.0	0	9.1	1	5.5	10
All (access to at least one form of finance)	50.5	101	52.9	82	70.2	85	45.0	76	42.3	11	28.2	11	51.5	183

6. Conclusion

The L4R endline report provides a multi-dimensional analysis of the Livelihoods for Resilience Activity, focused on enhancing gender equality, financial inclusion, food security, household livelihoods, and various other factors, using both cross-sectional and panel data.

Gender Dynamics

There is an increasing presence of female-headed households (FHH) observed across all regions, often overseeing slightly larger households. While male-headed households (MHH) consistently maintain higher asset values, the findings emphasize the substantial progress made by FHHs in key outcome indicators. This progress includes improvements in income, engagement in economic activities, and participation in value chains. FHHs' resilience and determination, coupled with project support, have empowered them on their journey towards economic independence. However, it's essential to acknowledge that work remains in achieving gender equality, particularly in terms of asset accumulation, underscoring the need for ongoing efforts to promote equitable opportunities for women within households.

Food Security

Concerning fluctuations are observed in the FIES data, while there has been marginal improvement in households identified as "food secure," there has been a substantial increase in severe food insecurity, from 31% to 49% for panel survey participants by the project's end. Cross-sectional data analysis paints a bleaker picture, with a significant decrease in food security levels, especially at the endline. This discrepancy between cross-sectional and panel data underlines the importance of analyzing trends from both perspectives to gain a comprehensive understanding of the project's impact. It's important to note that there's no trend analysis for FCS, as the data was collected at a single point in time. The prevalence of households in the "borderline" or "poor" FCS categories underscores the need for targeted interventions to address food security challenges.

Household Livelihoods

The project has had a positive impact on household assets, with a significant overall increase in real asset values, even in challenging economic conditions. Notably, livestock assets have played a pivotal role in this growth. The longitudinal analysis of both cross-sectional and panel data reveals an upward trend in overall household asset values, which has the potential to further enhance the resilience of the target households.

Market Access and Information

Initial high adoption rates showed the effectiveness of promotion but also underscored the need for sustained efforts. Government and cooperatives are primary seed and fertilizer providers, while

the private sector leads in pesticides. Sales value per household increased, but access to market information has declined over time.

Financial Services and Inclusion

Financial inclusivity, marked by VESAs, varies regionally. VESA membership has risen across the board, but the overall average savings in VESA accounts have witnessed a decline when adjusted for inflation. Savings have increased in nominal terms; however, their real value has diminished due to inflation. Access to loans improved from 57.3% to 78.8%, benefiting both MHH and FHH. Yet, there was a notable decline in loan repayments, especially in Tigray and Alamata/Ofla. Furthermore, the shift from VESAs to Microfinance Institutions (MFIs) for loans and savings signifies changing financial preferences and opportunities within the target communities.

Women's Empowerment

Mixed results were noted across various aspects of women's empowerment. Gains were seen in asset ownership and leadership roles, but there were declines in other areas like control over income and group membership. FHH who have their own VESA saving accounts generally fared better, but this relationship was statistically significant only for control over income. Additionally, the perception of the fairness of sharing household chores has declined over time.

Health and Nutrition

The project has succeeded in improving exclusive breastfeeding rates, reducing the disparity between male-headed and female-headed households. It has also encouraged more households to adopt colostrum feeding practices for newborns. Notable improvements were observed in Minimum Dietary Diversity (MDD) rates, reflecting enhanced nutrition practices. The project has had a profound impact on handwashing compliance, underlining the efficacy of its interventions in promoting good hygiene habits, although there was a slight drop at the endline.

Climate Change and Resilience

Endline data provides strong evidence of the project's enduring impact on climate change awareness, with the majority of the surveyed household recognizing climate change effects. Adoption of Climate Change Adaptation (CCA) practices has seen significant growth, emphasizing the project's transformative impact on community resilience.

Social Support Mechanisms

The cross-sectional analysis highlights the importance of various social support mechanisms, notably from VESAs and family networks, in providing mainly financial and psycho-social

support. While most find these supports valuable, a large percentage report receiving no assistance, pointing to gaps in community resilience.

PSNP Graduation

The data from the study on PSNP suggests that the desire to graduate decreased over time, likely due to increased shock exposure and decreased food security. At the endline, only 5.4% of non-graduated households reported wanting to graduate from the PSNP, down from 25.6% at baseline.

Youth Engagement

The data presents a comprehensive overview of youth engagement, training, employment trends, and financial behaviors across different regions. Over time, the VESA initiative has proven highly successful in engaging both male and female youth, boasting impressive participation rates. The majority of youth are inclined towards self-employment in non-farm activities, especially in regions like SNNPR-Sidama & Gedio, SNNPR-Hadiya, and Amhara.

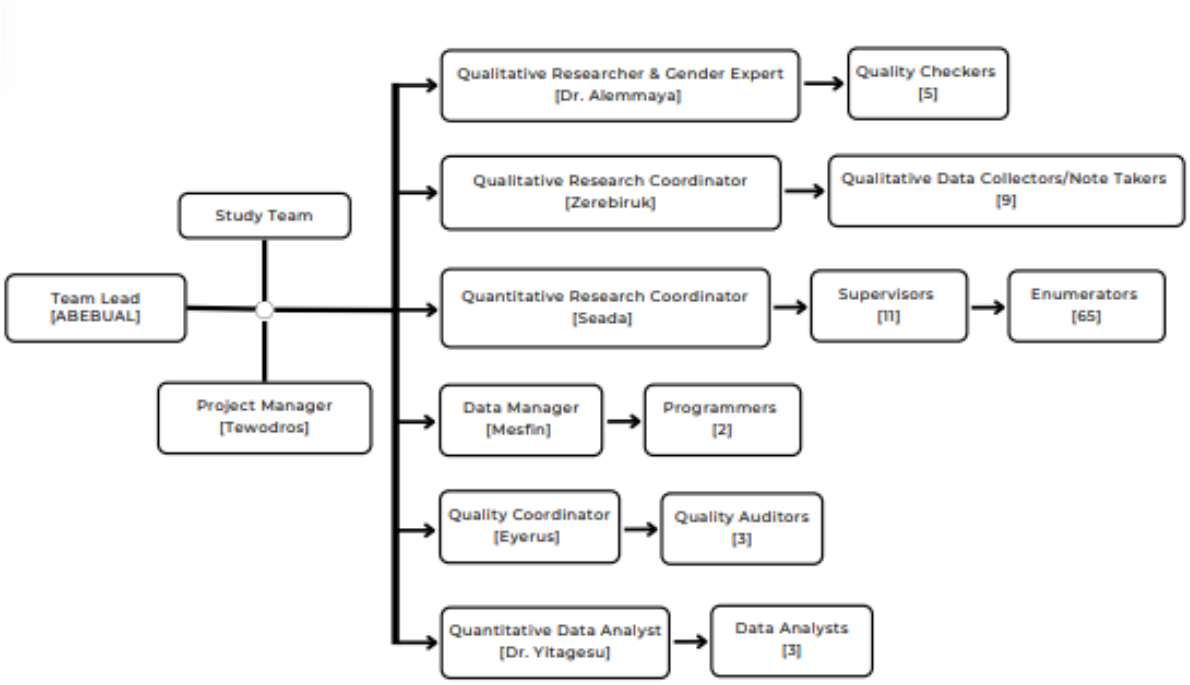
On the financial front, savings are prevalent among youth, albeit with disparities between male and female participants. VESA and other financial institutions play a significant role in providing youths with access to both savings and loan facilities, even though there are gender disparities in the type of institutions accessed. There is a notable rise in permanent employment as a source of income at the endline, despite its relatively low prevalence among the youth.

Annex

Team composition

Zerihun Associates assembled a core team of consultants who have a proven track record of conducting similar assessments, possess abundant knowledge, local experience, and dedication. The field team consisted of 65 enumerators, 9 qualitative data collectors and 11 supervisors.

Figure_A 1: Organizational Chart



Table_A 1: Average value of owned livestock asset in TLU

Average value of livestock asset in TLU	Tigray and Alamata/Ofla	Amhara	SNNPR-Hadiya	SNNPR Sidama and Gedio	MHH	FHH	Total
Baseline							
Calf	0.33	0.42	0.21	0.12	0.38	0.21	0.31
Bull	0.42	0.21	0.2	0.06	0.32	0.17	0.26
Ox	0.58	0.58	0.37	0.02	0.63	0.2	0.46
Heifer	0.09	0.14	0.14	0.1	0.13	0.09	0.11
Cow	0.35	0.27	0.35	0.18	0.34	0.22	0.29
Sheep	0.61	0.31	0.06	0.07	0.38	0.34	0.36
Goat	0.17	0.07	0.04	0.05	0.14	0.05	0.1

Horse	0	0.04	0.01	0	0.02	0	0.02
Donkey	0.24	0.28	0.16	0.01	0.28	0.1	0.21
Mule	0	0	0	0	0	0	0
Camel	0.01	0.01	0	0	0	0.01	0.01
Poultry	0.14	0.07	0.02	0.03	0.08	0.08	0.08
Total TLU	2.94	2.41	1.54	0.63	2.7	1.48	2.23
Year3							
Calf	0	0.2	0.19	0.07	0.24	0.2	0.22
Bull	0	0.04	0.04	0	0.06	0.03	0.05
Ox	0.86	0.84	0.33	0.04	0.93	0.33	0.7
Heifer	0.1	0.07	0.13	0.09	0.09	0.08	0.09
Cow	0.44	0.31	0.49	0.23	0.43	0.26	0.36
Sheep	0.46	0.39	0.11	0.07	0.37	0.33	0.35
Goat	0.19	0.06	0.04	0.02	0.11	0.1	0.11
Horse	0.01	0.03	0.03	0	0.02	0	0.02
Donkey	0.35	0.38	0.15	0.01	0.39	0.16	0.3
Mule	0	0.04	0.01	0	0.02	0.01	0.02
Camel	0.01	0.01	0	0	0.01	0	0.01
Poultry	0.2	0.11	0.04	0.09	0.14	0.14	0.14
Total TLU	2.99	2.48	1.58	0.61	2.81	1.62	2.35
Year4							
Calf		0.11	0.25	0.07	0.13	0.09	0.12
Bull		0.28	0.01	0.03	0.2	0.12	0.18
Ox		0.69	0.4	0.03	0.58	0.28	0.49
Heifer		0.08	0.12	0.11	0.1	0.08	0.09
Cow		0.26	0.41	0.13	0.29	0.16	0.25
Sheep		0.31	0.05	0.12	0.24	0.2	0.23
Goat		0.07	0.08	0.04	0.07	0.05	0.07
Horse		0.06	0.01	0.01	0.06	0.02	0.04
Donkey		0.39	0.19	0.05	0.32	0.19	0.28
Mule		0	0	0	0	0	0
Camel		0.01	0	0	0	0.01	0
Poultry		0.3	0.08	0.07	0.27	0.09	0.21
Total TLU		2.57	1.6	0.66	2.28	1.28	1.96
Year5							
Calf		0.11	0.34	0.15	0.16	0.1	0.2
Bull		0.09	0.13	0.03	0.1	0.0	0.1
Ox		0.55	0.54	0.08	0.54	0.3	0.4
Heifer		0.07	0.25	0.07	0.11	0.1	0.1

Cow		0.21	0.5	0.22	0.28	0.2	0.3
Sheep		0.28	0.08	0.06	0.2	0.2	0.2
Goat		0.04	0.1	0.05	0.05	0.0	0.1
Horse		0.03	0.02	0.01	0.02	0.0	0.0
Donkey		0.25	0.35	0.03	0.25	0.2	0.2
Mule		0.01	0	0.02	0.01	0.0	0.0
Camel		0.01	0	0	0.01	0.0	0.0
Poultry		0.05	0.11	0.07	0.06	0.1	0.1
Total TLU		1.63	2.41	0.77	1.76	1.14	1.54
Endline							
Calf	0.29	0.34	0.29	0.19	0.31	0.28	0.3
Bull	0.15	0.04	0.14	0.08	0.1	0.07	0.09
Ox	0.72	0.69	0.4	0.04	0.69	0.32	0.58
Heifer	0.09	0.13	0.15	0.15	0.14	0.07	0.12
Cow	0.34	0.27	0.33	0.19	0.3	0.25	0.29
Sheep	0.18	0.2	0.03	0.1	0.18	0.12	0.16
Goat	0.14	0.09	0.06	0.06	0.11	0.08	0.1
Horse	0	0.04	0.02	0.01	0.03	0	0.02
Donkey	0.26	0.36	0.4	0.01	0.33	0.15	0.28
Mule	0	0	0	0	0	0	0
Camel	0.01	0.01	0	0	0.01	0	0
Poultry	0.06	0.07	0.06	0.06	0.07	0.05	0.06
Total TLU	2.23	2.23	1.87	0.88	2.26	1.41	2.0

Table_A 2: Percentage of households among total households who participated in various value chain type

Percentage of households among total households who participated in various value chain type	**MHH**		**FHH**		**Total**	
	%	**N**	**%**	**N**	**%**	**N**
Baseline						
Cattle fattening	10.3	652	5.3	413	8.4	1065
Shoat fattening	14.9	652	16.2	413	15.4	1065
Goat Fattening	4	652	2.4	413	3.4	1065
Poultry (chickens)	11.8	652	13.1	413	12.3	1065
Poultry (egg)	17.2	652	13.1	413	15.6	1065
Honey	4.6	652	1	413	3.2	1065
Wheat	31.6	652	26.4	413	29.6	1065
Lentil	4	652	1.2	413	2.9	1065
Haricot bean	4.3	652	2.2	413	3.5	1065

Pepper	0.8	652	0.8	413	0.88	1065
Onion	1.4	652	1	413	1.2	1065
Potato	2.3	652	1.2	413	1.9	1065
Year3						
Cattle fattening	17.5	539	8.1	507	12.8	1046
Shoat fattening	52.0	539	45.0	507	49.0	1046
Goat Fattening	10.0	539	3.0	507	8.0	1046
Poultry (chickens)	20.0	539	15.0	507	18.0	1046
Poultry (egg)	21.0	539	17.0	507	19.0	1046
Honey	2.5	539	1.0	507	2.0	1046
Wheat	15.0	539	8.0	507	12.0	1046
Lentil	2.2	539	2.0	507	2.0	1046
Haricot bean	2.0	539	2.0	507	2.0	1046
Potato	4.2	539	3.0	507	4.0	1046
Pepper	0.8	539	1.0	507	1.0	1046
Onion	3.4	539	1.2	507	3.0	1046
Year4						
Cattle fattening	9.0	441	5.0	211	8.0	652
Shoat fattening	23.0	441	19.0	211	22.0	652
Goat Fattening	5.0	441	3.0	211	5.0	652
Poultry (chickens)	27.0	441	21.0	211	25.0	652
Poultry (egg)	23.0	441	21.0	211	22.0	652
Honey	7.0	441	2.0	211	6.0	652
Wheat	25.0	441	14.0	211	21.0	652
Lentil	4.0	441	1.0	211	3.0	652
Haricot bean	8.0	441	8.0	211	8.0	652
Mung bean	1.0	441	0.0	211	1.0	652
Pepper	4.0	441	5.0	211	4.0	652
Onion	3.0	441	1.0	211	2.0	652
Potato	9.0	441	3.0	211	7.0	634
year5						
Cattle fattening	8.4	416	2.6	233	6.3	649
Shoat fattening	12.4	416	13.2	233	12.9	649
Goat Fattening	4.6	416	2.6	233	3.9	649
Poultry (chickens)	16.3	416	18.0	233	16.9	649
Poultry (egg)	14.9	416	12.9	233	14.2	649
Honey	6.5	416	1.7	233	4.7	649
Wheat	10.8	416	7.3	233	9.6	649
Lentil	0.5	416	1.3	233	0.8	649
Haricot bean	3.1	416	2.6	233	2.9	649
Pepper	1.0	416	0.0	233	0.6	649
Onion	1.2	416	0.0	233	0.8	649
Potato	4.6	416	4.7	233	4.6	649
Endline						
Cattle fattening	11.7	738	9.3	334	10.9	1072
Shoat fattening	9.9	738	12.3	334	10.6	1072

Goat Fattening	6.2	738	5.1	334	5.9	1072
Poultry (chickens)	13	738	11.1	334	12.4	1072
Poultry (egg)	16	738	15	334	15.7	1072
Honey	3.4	738	0.9	334	2.6	1072
Wheat	8.4	738	5.4	334	7.5	1072
Lentil	4.7	738	1.8	334	3.8	1072
Haricot bean	3.7	738	3.3	334	3.5	1072
Pepper	0.9	738	0.9	334	0.9	1072
Onion	4.6	738	3	334	4.1	1072
Potato	3.5	738	3	334	3.4	1072

Table_A 3: Average value of sales by each value chain commodity in ETB by region overtime

Average value of sales by each value chain commodity in ETB	**Tigray and Alamata/Ofla**		**Amhara**		**SNNPR Hadiya**		**SNNPR Sidama & Gedio**		**Total**	
	Mean	**N**	**Mean**	**N**	**Mean**	**N**	**Mean**	**N**	**Mean**	**N**
Baseline										
Cattle fattening	27066	62	10901	14		0	3312	13	21054	89
Sheep fattening	8829	121	4515	33		0	2135	10	7553	164
Goat Fattening	6248	25	5458	9		0	1900	2	5809	36
Poultry (chickens)	1188	95	431	24	694	5	186	7	977	131
Poultry (egg)	1416	127	597	29	302	3	217	7	1202	166
Honey	2961	29	2397	3		0	510	2	2767	34
Wheat	3306	214	2761	78	2307	23		0	3098	315
Lentil	5971	14	1383	17		0		0	3455	31
Haricot bean		0		0	1200	1	313	36	337	37
Pepper	5550	4	325	1		0		0	4505	5
Onion	2930	10	1000	2	1800	1		0	2546	13
Potato	1530	4	1000	1	483	12	257	3	685	20
Overall sell from all VC	8156	244	3927	80	2756	18	1740	32	6443	374
Year3										
Cattle fattening	16354	39	16067	30	9200	5	6300	4	15269	78
Sheep fattening	7237	77	8609	88	3680	10	2418	11	7410	186
Goat Fattening	6022	27	5333	3	1750	2		0	5691	32
Poultry (chickens)	1453	105	924	44	633	3	406	31	1135	183
Poultry (egg)	2074	73	1561	91	209	4	174	21	1577	189
Honey	2463	12	3683	6	500	1	500	1	2632	20
Wheat	4426	47	5653	78	3350	4		0	5134	129
Lentil	3878	9	1973	12		0		0	2789	21
Haricot bean	3250	2		0		0	1906	19	2034	21

Pepper	1396	6	350	1		0	425	2	1064	9
Onion	4068	14	2770	11	250	2		0	3256	27
Potato	3700	8	4084	20	753	8	717	3	3063	39
Overall sell from all VC	8967	227	11134	183	4210	26	1562	69	8495	505
Year4										
Cattle fattening			24500	27	10988	8	10625	16	18027	51
Sheep fattening			17251	86	4114	14	3838	14	13991	114
Goat Fattening			8361	23	8075	4	3000	3	7787	30
Poultry (chickens)			5311	85	1989	24	901	54	3361	163
Poultry (egg)			2996	89	537	10	479	47	2017	146
Honey			3393	15	5571	7	2850	14	3606	36
Wheat			6763	105	1715	34	2400	1	5506	140
Lentil			3785	14	8000	5		0	4894	19
Haricot bean			5357	7	719	8	598	38	1245	53
Pepper			3225	4		0	687	23	1063	27
Onion			3800	9	340	5	1500	2	2431	16
Potato			4931	22	885	21	800	3	2814	46
Overall sell from all VC			19532	208	6916	57	4335	90	13653	355
Year5										
Cattle fattening			27333	18	21615	13	13827	11	22026	42
Sheep fattening			16245	61	5405	10	3347	16	12627	87
Goat Fattening			13938	8	7520	15	5067	3	9212	26
Poultry (chickens)			1187	40	2572	36	1133	55	1545	131
Poultry (egg)			3536		2197		1329		2875	
Honey			4290	10	6970	10	3365	13	4738	33
Wheat			5163	70	4675	30		0	5017	100
Lentil			7689	9		0		0	7689	9
Haricot bean				0		0	2594	18	2594	18
Pepper				0		0	2877	3	2877	3
Onion			9500	5		0		0	9500	5
Potato			6892	21	1250	19		0	4212	40
Overall sell from all VC			18264	137	15034	55	5188	77	13861	269
Endline										
Cattle fattening	37612	58	47304	26	19250	10	30166	23	36733	117
Sheep fattening	8906	70	13695	38	2500	1	12160	5	10589	114
Goat Fattening	11800	32	11665	17	2425	4	5930	10	10237	63
Poultry (chickens)	2098	64	1724	41	2560	10	2340	18	2050	133
Poultry (egg)	2596	51	3329	86	5506	7	2801	24	3122	168
Honey	6655	11	2750	5	1750	1	2152	11	4013	28

Wheat	5531	43	3615	35	5467	3		0	4701	81
Lentil	4425	21	7690	20		0		0	6018	41
Haricot bean	3639	11	1407	6	1433	3	2244	18	2451	38
Pepper	1675	4	3000	1	120	1	2638	4	2037	10
Onion	13653	23	4471	21		0		0	9270	44
Potato	1257	8	4013	20	39400	3	1920	5	6058	36
Overall sell from all VC	20504	206	17193	162	17809	23	18317	55	18893	446

Table_A 4: Percentage of households who adopted various promoted improved practices

Percentage households who adopted various promoted improved practices	**Tigray and Alamata/Ofla**	**Amhara**	**SNNPR Hadiya**	**SNNPR Sidama/Gedio**	**Total**	**N**
Year3						
Transitional beehive	80.6	84.2	33.3	89.5	78	15
Low cost improved poultry house	86.8	86.7	54.5	70.3	82	318
Egg handling and storage	88.5	77.3	88.9	91.7	84	167
Improved shade for shoat and cattle	79.3	86.4	66.7	90.5	83	483
Line planting	85.7	91.4	76.3	97.1	88	212
Improved feed feeding (concentrated feed, straw enriched with industrial byproducts such as molasses, etc.)	80	82.7	38.5	66.7	79	460
Improved trough	72.1	91.1	50	100	82	481
Bio fertilizer application	86.2	89.5	0	100	87	212
Seed bed preparation	88.2	88.6	63.2	80	84	203
Animal health management (vaccination)	98.8	96	75	100	95	927
Improved weeding	97	84.8	83.3	100	89	519
Year4						
Transitional beehives	75	28	27	11	83	6	64	45
Low-cost improved poultry house (for poultry	89	74	67	21	89	19	85	114
Egg handling and storage (egg production)	91	104	100	19	96	28	93	151
Improved shade for shoat and cattle (Livestock production)	90	102	71	14	79	14	87	130
Line planting (crop &Veg production)	89	81	100	38	100	33	94	152
Improved feed feeding (concentrated feed, straw enriched with industrial by-products such as molasses, etc.) (for livestock)	87	62	25	4	67	3	83	69
Improved trough (for livestock producer)	80	59	20	5	100	1	75	65
Bio fertilizer application (Crop and Veg Production)	87	63	94	16	100	17	91	96

Seed bed preparation (only ask crop and veg production)			89	92	100	36	96	28	93	156
Animal health management (vaccination) (only for the livestock production)			90	104	97	34	97	32	93	170
Improved weeding (Crop and Veg production			79	38	67	12	80	5	76	55
Year5										
Transitional bee hives			95.0	20	88.2	17	83.3	12	89.8	49
Low-cost improved poultry house (for poultry			90.0	103	64.0	39	78.6	56	81.8	198
Egg handling and storage (egg production)			85.5	62	50.0	28	78.9	19	75.2	109
Improved shade for shoat and cattle (Livestock production)			90.9	55	87.5	24	84.6	13	89.0	92
Line planting (crop &Veg production)			67.7	62	82.0	28	63.0	19	70.6	109
Improved feed feeding (concentrated feed, straw enriched with industrial by-products such as molasses, etc.) (for livestock)			87.4	103	77.8	45	75.0	56	81.9	204
Improved trough (for livestock producer)			93.8	65	84.2	38	78.3	46	86.6	149
Bio fertilizer application (Crop and Veg Production)			100.0	10	70.0	10	90.9	11	87.0	31
Seed bed preparation (only ask crop and veg production)			91.9	62	57.0	28	73.7	19	79.8	109
Animal health management (vaccination) (only for the livestock production)			87.4	103	71.0	45	80.4	56	81.9	204
Improved weeding (Crop and Veg production			91.3	103	68.9	45	76.8	56	82.4	204
Endline										
Transitional beehive (appropriate for honey VC participants)	27.3	11	66.7	3	2.8	3	54.5	11	46.2	28
Low-cost improved poultry house (appropriate for Poultry VC participant)	55.3	85	37.5	88	54.5	11	69.2	26	49.5	210
Egg handling and storage (appropriate for Poultry VC participant)	34.5	84	51.1	88	50	10	68	25	46.4	210
Improved shade for shoat and cattle (Meat VC participants)	62.2	127	43.9	57	45.5	11	25	28	52	223
Line planting (crop & veg VC participants)	59.8	127	30.4	56	10	10	33.3	27	46.8	220
Improved feed feeding (concentrated feed, straw enriched with industrial byproducts such as molasses, etc.) (Meat VC participants)	59.1	127	27.3	55	0	10	4.5	22	42.5	223
Improved trough (Meat VC participants)	33.3	72	66.7	69	87.5	8	70.8	24	54.3	223
Bio fertilizer application (crop & veg VC participants)	43.2	74	59.7	62	0	6	60	15	49.7	220
Seed bed preparation (crop & veg VC participants)	50.6	77	61.4	70	50	6	56.3	16	55.6	220

Animal health management (vaccination) (Meat and Poultry VC participants)	48.7	76	86.4	66	42.9	7	81.3	16	66.7	165
Improved weeding (crop & veg VC participants)	64.5	169	79.1	115	33.3	15	57.9	38	67.4	220

Table_A 5: Percentage of household who applied various inputs by sources

	Sources											
	Agro-dealer		**Cooperatives/unions**		**Government organization**		**Private sector**		**NGO & civic society**		**SELF**	
	%	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**
Baseline												
Fertilizer	0.6	19	52.6	355	43.8	297	1.5	5	1.5	1	0.1	9
Pesticide	1.8	7	23.6	90	63.1	241	11.3	43	0.0	0	0.3	1
Herbicide	2.0	8	28.5	113	54.5	216	14.1	56	0.5	2	0.3	1
improved seed	0.3	2	35.7	232	57.5	373	2.2	14	9.0	9	2.9	19
Concentrated feeds for livestock	18.3	19	25.0	26	18.3	19	38.5	40	0.0	0	0.0	0
Veterinary drug	7.4	42	7.8	44	78.8	446	5.7	32	0.4	2	0.4	2
Effective micro-orgasm	0.0	0	3.8	2	0.0	0	86.5	45	9.6	5	0.0	0
Industrial Silage	16.7	4	16.7	4	8.3	2	0.0	0	4.2	1	0.0	0
Hay	4.9	14	2.1	6	2.5	7	19.6	56	0.4	1	70.5	201
Molasses	0.0	0	0.0	0	18.2	4	81.8	18	0.0	0	0.0	0
Year3												
Fertilizer	3.0	19	52.0	355	43.0	298	1.0	5	0.0	0	1.0	9
Pesticide	9.0	11	16.0	21	48.0	61	24.0	29	0.0	0	2.0	3
Herbicide	9.0	12	12.0	17	47.0	60	23.0	21	0.0	0	9.0	12
Crop seed	0.0	0	29.0	115	60.0	241	4.0	10	1.0	5	4.0	15
Vegetable seed	9.0	14	5.0	8	69.0	101	11.0	14	4.0	6	3.0	4
Concentrated feeds for livestock	22.0	23	12.0	13	32.0	30	15.0	14	0.0	0	18.0	19
Veterinary drug	0.0	0	4.0	0	91.0	0	2.0		0.0		2.0	972

Industrial silage	21.4	3	7.0	1	0.0	0	71.0	8	0.0	0	0.0	0
Hay	1.0	1	2.0	2	4.9	5	18.6	19	18.6	0	72.5	74
Molasses	25.0	4	13.0	2	13.0	2	13.0	2	0.0	0	38.0	2
Percentage of household who accessed various inputs from multiple source												
Year4												
Vegetable Seed	64.0	41	57.0	20	58.0	62	26.0	10	89.0	8	44.0	11
Crop Seed	51.0	22	51.0	51	60.0	101	32.0	10	70.0	7	48.0	19
Fertilizer	54.0	31	58.0	129	58.0	139	41.0	11	88.0	7	55.0	12
Concentrated feeds for Livestock	58.0	15	38.0	3	57.0	12	0.0	0	0.0	0	6.0	1
Hay	67.0	2	75.0	3	67.0	6	56.0	5	67.0	2	75.0	49
Pesticide	63.0	27	63.0	26	58.0	28	21.0	4	100.0	4	60.0	9
Herbicide	77.0	23	70.0	28	75.0	3	50.0	13	56.0	5	26.0	6
Effective Micro-Organisms	94.0	16	0.0	0	83.0	5	50.0	1	50.0	1	0.0	0
Veterinary drug	39.0	12	71.0	5	78.0	101	60.0	3	80.0	4	93.0	13
Industrial Silage	33.0	2	0.0	0	67.0	2	100.0	1	0.0	0	0.0	0
Molasses	88.0	15	0.0	0	100.0	9	0.0	0	0.0	0	0.0	0
Year5												
Vegetable Seed	51.0	49	12.0	49	49.0	49	10.0	49	6.0	49	0.0	0
Crop Seed	9.9	131	48.1	131	62.6	131	9.9	131	6.0	131	0.0	0
Fertilizer	1.3	159	38.0	159	72.3	159	12.6	159	0.6	159	0.0	0
Concentrated feeds for Livestock	81.8	37	0.0	37	5.4	37	43.2	37	0.0	37	0.0	0
Hand tool	32.3	161	3.1	161	41.6	161	35.4	161	5.0	161	0.0	0
Pesticide	71.4	28	39.3	28	25.0	28	39.3	28	0.0	28	0.0	0
Herbicide	95.5	22	22.7	22	4.5	22	28.6	22	0.0	22	0.0	0
Effective Micro-Organisms	72.7	11	0.0	0	0.0	0	0.0	0	36.4	11	0.0	0
vet drug	36.4	77	0.0	77	70.1	77	9.1	77	0.0	77	0.0	0
Bee colony	0.0	0	0.0	0	0.0	0	33.3	3	66.7	3	0.0	0
Molasses	69.0	13	0.0	0	0.0	0	38.5	13	0.0	0	0.0	0
Pullet	0.0	0	4.0	25	4.0	25	64.0	25	32.0	25	0.0	0
Endline												

Fertilizer	14.2	33	27.2	63	33.2	76	37	85	4.7	11	2.1	5
Pesticide	12.5	29	43.1	99	13.4	31	14.7	34	2.6	6		
Herbicide	32.1	74	80.3	185	27.6	63	39.6	91	6.6	15	0.5	1
Crop seed	18.2	42	49.5	114	14.3	33	27.8	64	3.4	8	0.5	1
Vegetable seed	20.6	19	55	50	16.3	15	25.2	23	19.8	18	6.1	5
Concentrated feeds for livestock	4.6	7	21.7	35	3.4	5	8.9	14	6.5	10	5.9	9
Livestock medication	37.8	121	78.7	252	38.1	122	69.2	221	16.8	54	1.2	4
Effective micro-organisms		0	1.2	4	0.4	1	0.8	3		0	2.4	8
Industrial silage	16.7	53	50.6	162	11.1	36	56.9	182	9.7	31	1.37	4
Hay	1.6	5	29.9	96	1.6	5	2.4	8	0.4	1	0.35	1
Molasses	24.4	78	35	112	21.9	70	31.8	102	5.4	17	3.1	10
Pullet	14	4	12	3	12.3	3	18.8	5	9.8	3	5.9	2
Bee colony	32.5	9	6.3	2	38.5	11	7.2	2	39.7	11	3.1	1
Agricultural hand tools	35.8	82	83.7	193	56.5	130	65.6	151	12.8	29	1.47	3

Table_A 6: Average saving amount of youth by saving institution and region

Saving amount by source	Male	Female	Tigray and Alamata/Ofla	Amhara	SNNPR-Hadiya	SNNPR-Sidama and Gedio	Total
VESA	930	705	523	1139	305	756	829
RuSACCO	4152	2750	.	4402	500	1500	3977
MFI	4712	2848	1770	4276	10350	165	4091
Bank							
Iquib	7856	4829	7513	5317	22467	1231	6489

Table_A 7: Number of children under the age of 24 month by region [Cross-sectional]

	Tigray and Alamata/Ofla		Amhara		SNNPR Sidama & Gedio		SNNPR Hadiya		Total	
	%	n	%	n	%	n	%	n	%	n
Baseline										

Number of households with children 0-6 month	36.4	52	34.4	22	18.2	6	23.8	10	31.9	90
Number of households with children 6-23 month	63.6	91	65.6	42	81.8	27	76.2	32	68.1	192
Households with children 0-24 month	34.8	143	18.3	64	33.3	33	23.5	42	27.2	282
Year3										
Number of households with children 0-6 month	27.4	30	29.7	34	53.6	15	32.4	11	31.3	90
Number of households with children 6-23 month	72.6	85	70.3	83	46.4	13	67.6	25	68.7	206
Households with children 0-24 month	28.1	117	29.4	118	34.6	28	25.2	37	28.7	300
Year4										
Number of households with children 0-6 month			88.9	56	63.4	66	73.5	57	81.4	69
Number of households with children 6-23 month			11.1	44	36.6	34	26.5	43	18.6	121
Households with children 0-24 month			20.9	83	45.2	42	40.1	65	29.1	190
Year5										
Number of households with children 0-6 month*										
Number of households with children 6-23 month*										
Households with children 0-24 month*			11	44	28	42	32	28	18	114
Endline										
Number of households with children 0-6 month	32.9	23	26.4	24	23.8	5	16.7	5	26.9	57
Number of households with children 6-23 month	67.1	47	73.6	67	76.2	16	83.3	25	73.1	155
Households with children 0-24 month	18.8	70	21.8	91	22.1	21	19	30	20.3	212
* Data on to indicate the numbers of participants who have children 0-6 & 6-23 month couldn't be found on the dataset										

Table_A 8: Number of children under the age of 24 month by region [Panel]

	Tigray and Alamata/Ofla	Amhara	SNNPR Sidama & Gedio	SNNPR Hadiya	Total

	%	n	%	n	%	n	%	n	%	n
Baseline										
Number of households with children 0-6 month	33.3	17	38.5	10	10	1	21.1	4	30.2	32
Number of households with children 6-23 month	66.7	34	61.5	16	90	9	78.9	15	69.8	74
Households with children 0-24 month	33.1	51	20	26	27	10	27.5	19	27.2	106
Year3										
Number of households with children 0-6 month	26.3	10	41.2	14	50	8	34.8	8	36	40
Number of households with children 6-23 month	73.7	28	58.8	20	50	8	65.2	15	64	71
Households with children 0-24 month	24.4	38	25.4	34	41	16	32.4	23	27.8	111
Year4										
Number of households with children 0-6 month			100	1	50	1	0	0	33.3	2
Number of households with children 6-23 month			0	0	50	1	100	3	66.7	4
Households with children 0-24 month			16.7	1	66.7	2	75	3	46.2	6
Year5										
Number of households with children 0-6 month*										
Number of households with children 6-23 month*										
Households with children 0-24 month*										
Endline										
Number of households with children 0-6 month	24.2	8	41.2	7	33.3	2	0	0	27	17
Number of households with children 6-23 month	75.8	25	58.8	10	66.7	4	100	7	73	46
Households with children 0-24 month	23.6	33	14.3	17	15.4	6	10.8	7	17.4	63