Final Report

Graduation with Resilience to Achieve Sustainable Development (GRAD)

Intermediate Results Assessment 2015

By

Green Professional Services

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Acronyms

ASE	Agri-Service Ethiopia
CRS/MCS	Catholic Relief Service/Meki Catholic Secretariat
DA	Development Agent
FEMA	Farmers Economic and Marketing Association
FGD	Focus Group Discussion
FHH	Female Headed Household
FtF	Feed the Future
FY	Fiscal Year
GPS	Green Professional Services
GRAD	Graduation with Resilience to Achieve Sustainable Development
HH	Household
HHs	Households
IGA	Income Generating Activities
IPs	Implementation Partners
IPTT	Indicator Performance Tracking Tables
IR	Intermediate Result
KII	Key Informant Interview
M&E	Monitoring and Evaluation
MAD	Minimum Acceptable Diet
MFI	Microfinance Institutions
MHH	Male Headed Household
MSP	Multi-Stakeholders Platform
OFSP	Orange Fleshed Sweet Potato
ORDA	Organization for Rehabilitation and Development in Amhara
ORS	Oral Rehydration Solution
PPS	Probability Proportional to Size
PSNP	Productive Safety Net Program
REST	Relief Society of Tigray
RuSACCO	Rural Saving and Credit Cooperatives
SNNPR	Southern Nations, Nationalities, and Peoples Region
SNV	The Netherlands Development Organization
USAID	United State Agency for International Development
VESA	Village Economic and Saving Association

Executive Summary

The main goal of the Graduating with Resilience to Achieve Sustainable Development (GRAD) project is to contribute significantly to sustained food security of chronically and transitory food insecure households in rural Ethiopia. GRAD seeks to graduate at least 50,000 chronically food insecure HHs from the government's Productive Safety Net Programme (PSNP) in 16 targeted woredas in part by increasing each HH's income by at least $365 per year. This objective aims to be achieved through three results: enhanced livelihood options of chronically food insecure households in highland areas, improved community and household resilience, and strengthened enabling environment to promote scale-up and sustainability.

Through the leadership of CARE Ethiopia, GRAD is implemented by a consortium of partners including Agri-Service Ethiopia (ASE), Catholic Relief Service/Meki Catholic Secretariat (CRS/MCS), Organization for Rehabilitation and Development in Amhara (ORDA) and the Relief Society of Tigray (REST) with Netherlands Development Organization (SNV) as the technical partner for value chain development.

The annual GRAD Intermediate Result (IR) assessment is one of the project's M&E mechanisms to track change at the outcome level. This paper summarizes key findings from the IR Assessment to inform GRAD's activities in the fifth and final year of the project. The general objective of this assessment was to measure current status of outcome indicators of the project and to assess how the benefits of the project are distributed among FHH and MHH. Specifically, the study assessed intermediate result achievements for Results 1 and 2 of the project, based on an innovative list of indicators.

Methodologically, the assessment was initiated with critical review of project appraisal documents and previous Intermediate Result (IR) assessments to come up with assessment indicators. Subsequently, an outcome indicator list was prepared in view of supplementary indicators provided by CARE Ethiopia and 2014 IR assessment. The assessment was mainly based on quantitative data. In addition, the assessment also uses some qualitative date to triangulate the quantitative data findings. In general, the assessment found positive achievements as per indicated intermediate results and the accompanying indicators. Bulleted below is a summary of significant findings under each result.

IR 1.1 - On and off-farm economic opportunities, inclusive value chains and market assess for target HHs stimulated

Are GRAD HHs engaging in new economic opportunities?

- 79 percent of HHs reported at least one new IGA engagement
- 65 percent of HHs reported engaging in at least one new VC

These findings illustrate substantial progress toward GRAD's objective of engaging all households in at least one new value chain and one new IGA.

What are the primary value chains in which GRAD HHs are engaging?

- 46% shoat fattening; 19% cattle fattening; 18% potato; 12% onion production

How committed are GRAD HHs to the value chains in which they are engaged?

The majority of respondents noted that they have already completed more than one cycle of their newly-adopted value chain activity. Although this will need to be further verified and monitored for a longer period of time, this suggests sustainable commitment. This hypothesis is further supported by qualitative findings from this study.

How are HHs financing their value chain participation?

- MFIs are reported to be major sources of finance for HHs engaged in VCs, particularly, for cattle (85 percent) and shoat fattening (58 percent).

What are the income gains attributed to these engagements?

- From new IGA and VC engagements combined, GRAD HHs are generating an average annual average income of ETB 6,609 ($330.40).

To what degree do HHs have access to the inputs and services they need to succeed?

54 percent of MHH and 47 percent of FHH reported inputs to be accessible and affordable, while more than half of HHs engaged in different VCs reported available inputs to be of high quality. Notably, GRAD agro-dealers were reported to be major sources of the inputs and technologies, along with the agricultural bureaus.

How strong are output market linkages? To what degree are HHs selling through FEMAs?

Qualitative findings indicate that output market linkages remain weak for some crops including haricot beans, onion, pepper and potato. Just 24% of HHs report selling products via FEMAs, marketing cooperatives, or other aggregators.

IR 1.2 – Access to a range of financial products and services expanded

- 92% of HHs are members of VESA groups while 44% and 6% reported having an account with an MFI or a bank respectively. In addition, 14% of HHs reported membership in a cooperative or RuSACCO.
- VESAs have been particularly popular due to the ability to save small amounts of money and easily access flexible credit. VESAs were unsurprisingly therefore the most ubiquitous source of credit for participating HHs. Among respondents that are VESA member, 57% had received a VESA loan.
- The second most common source of credit was MFIs. Among the 44% of HHs reporting that they have an account with an MFI, 92% had received a loan through that institution.

IR 1.3 – Extension services upgraded

- 82% of HHs reported having received extension services for their VC activities in the past year. The primary source of service was GRAD staff (34%) followed by development agents (32%) or both (31%).
- More than half of all respondents report that the extension service they receive is of high quality.

IR 2.1 – Women's resilience, access to inputs, services and information increased

- The study assessed women decision making in HH affairs, access to inputs, market and information. Accordingly, it was found that women's ability to make decision have improved. 65% of female respondents reported an increase in joint decision-making on household affairs.
- In addition, 91% of FHH reported having improved access to inputs, 90% reported having improved access to markets, 83% reported increased access to market information and 91% reported increased access to credit.

IR 2.2 - Nutritional status of infants, children and reproductive age women improved

At the time of the survey, 30% of HHs reported having a child under the age of 24 months. 6% reported having a child under 6 months of age. GRAD interventions for these age groups include a focus on proper infant and young child feeding, improved dietary diversity for all, and production of nutritious foods.

- Colostrum consumption by newborns was reported by 90% of respondents while exclusive breastfeeding was reported by almost all HHs. In addition, 77% of mothers report that they breastfed their child immediately after birth (in less than an hour) and 83% reported introduction of complementary foods at the age of 6 months.
- As for meal frequency, 80% of relevant respondents report achieving minimum meal frequency and 47% achieved minimum dietary diversity. Combined this represents a 40% achievement rate of minimum acceptable diet for children under 24 months.
- Dietary diversity of women of reproductive age was also assessed. The mean number of food groups consumed was 3.2. Qualitative findings indicate that women's understanding of dietary diversity and required meal frequency has increased. However, their ability to apply these lessons in practice is inhibited by a lack of financial resources.

IR 2.3 - Climate change adaptation improved

- About 78 percent of HHs perceive that climate change is occurring and a substantial proportion of respondents are taking measures to adapt.
- The most commonly adopted strategies include: watershed improvement (76 percent); use of short season or drought-resistant crop varieties (70 percent); and starting to save or increasing savings rates (71 percent).

IR 2.4 -Promote aspiration for graduation among targeted PSNP HHs and enhance enablers' graduation

57 percent of GRAD HHs are current PSNP beneficiaries. Among those GRAD HHs that are not current PSNP beneficiaries, 61 percent report graduation from PSNP since joining GRAD. Among those GRAD HHs still benefitting from PSNP, 36 percent reported aspiration to graduate within the next five years.

1.Introduction

1.1 Background of the Project

The main goal of the Graduating with Resilience to Achieve Sustainable Development (GRAD) project is to contribute significantly to sustained food security of chronically and transitory food insecure households in rural Ethiopia. GRAD seeks to graduate at least 50,000 chronically food insecure HHs from the government's Productive Safety Net Programme (PSNP) in 16 targeted woredas in part by increasing each HH's income by at least $365 per year. This objective aims to be achieved through three results: enhanced livelihood options of chronically food insecure households in highland areas, improved community and household resilience, and strengthened enabling environment to promote scale-up and sustainability.

Through the leadership of CARE Ethiopia, GRAD is implemented by a consortium of partners including Agri-Service Ethiopia (ASE), Catholic Relief Service (CRS/MCS), Organization for Rehabilitation and Development in Amhara (ORDA) and Relief Society of Tigray (REST) with Netherlands Development Organization (SNV) as the technical partner for value chain development and demand driven extension services.

1.2. GRAD Project Goals and Objectives

The general objective of the five-year, USAID-funded project is to sustainably graduate at least 50,000 households from the PSNP while strengthening their resilience to income and food related shocks. To this end, the following results and intermediate results were expected to contribute to the achievement of the strategic objective:

Result 1—Enhanced Livelihood Options of Chronically Food Insecure Households in Highland Areas
IR 1.1 On- and off-farm economic opportunities, inclusive value chains and market access for targeted HHs stimulated.
IR 1.2: An inclusive financial sector promoted and access to a range of financial products and services expanded:
IR 1.3: Extension services upgraded
Result 2 – Improved Household and Community Resilience
IR 2.1: Women's resilience and access to inputs, services and information increased
IR 2.2: Nutritional status of infants, children and reproductive age women improved
IR 2.3: Climate change adaptation improved
IR 2.4: Promote aspirations for graduation among targeted PSNP HHs and enhance enablers of graduation
Result 3 – Strengthened Enabling Environment to Promote Scale-up and Sustainability
IR 3.1: Collaboration among stakeholders consolidated to promote joint learning and scale up
IR 3.2: Enabling environment improved

1.3. Objectives of the IR Assessment

The general objectives of this assessment were to measure current status of outcome indicators of the project and to assess how the benefits of the project are distributed between female headed households (FHH) and male headed households (MHH). Specifically, the study assessed intermediate result achievements for Results 1 and 2 of

the project, based on an innovative list of indicators. See Appendix A for a list of indicators.

1.4. Geographic Coverage and Timing of the Assessment

The assessment covered 15 of 16 woredas in four regions (Amhara, Tigray, Oromia, and SNNPR) where the five GRAD implementing partners are working. A total of 27 kebeles from each region and program implementation areas of REST, ORDA, CRS/MCS, CARE and ASE were selected using probability proportional to size (PPS) sampling technique (size being total number of beneficiary households in the kebeles) as obtained from the beneficiary household list from CARE Ethiopia. Field data collection was conducted from June 27 up to July 8, 2015 in the selected kebeles of the project areas across all implementing partners. Table 1.1 below describes the distribution of the sample HHs by region (please see sampling details in the methodology section).

Table 1.1: Distribution of sample in the assessment area

Region	Woreda	# of sample Kebeles	Male Headed sample HHs	Female Headed Sample HHs	Total sample
Amhara	Lay Gayint	4	79	28	107
	Libo Kemkem	3	66	16	82
		7	**145**	**44**	**189**
Oromia	Adami Tulu	2	44	16	60
	Arsi Negelle	1	22	8	30
	Shalla	1	18	6	24
	Zeway Dugda	1	23	7	30
		5	**107**	**37**	**144**
SNNPR	Loka Abaya	1	20	6	26
	Hawassa Zuria	1	21	3	24
	Mareko	1	23	7	30
	Meskan	2	46	14	60
	Hawela Tula	1	16	9	25
		6	**126**	**39**	**165**
Tigray	Alamata	3	61	29	90
	Raya Azebo	2	31	27	58
	EndaMehoni	2	35	20	55
	Ofla	2	36	21	57
		9	**163**	**97**	**260**
Grand total		**27**	**541 (71.4%)**	**217 (28.6%)**	**758**

Source: GRAD IR Assessment 2015 Survey Dataset

1.5. Organization of the Report

The next section presents the methodology applied on the assessment. Then, section three concludes with a presentation of the findings of the assessment.

2. Methodology of the Assessment

The assessment began with a critical review of project appraisal documents and previous IR assessments to come up with assessment indicators. Subsequently, outcome indicator list was prepared in view of supplementary indicators provided by the CARE Ethiopia and 2014 IR assessment (see Appendix A for a list of indicators). Then, survey design and data collection were conducted. Below, a general methodology for the quantitative and qualitative data collection is presented.

2.1. Quantitative Survey Instruments

The quantitative survey questionnaires were developed by staff from Green Professional Services (GPS) with input from CARE Ethiopia counterparts. The household survey questionnaire contained 19 sections. The development of the questionnaire was substantiated by a range of resources from GPS and CARE Ethiopia, then a final questionnaire was approved by CARE Ethiopia (see appendix D for the household questionnaire). Questionnaires were administered by enumerators with an adult household member available during the date and time of the interview.

2.2. Qualitative Survey Instruments

The qualitative component of data collection focused on capturing contextual information about economic opportunities, access to services, gender equality, dietary diversity, climate change and aspiration to graduate from PSNP. Findings from these topics helped understand and explain outcomes, as well as to interpret the quantitative findings (see Appendix C for checklists of FGDs and KIIs).

Qualitative data collection involved separate focus groups of men and women currently under GRAD support, where homogeneity was considered critical to maximizing disclosure among focus group participants. Accordingly, considering our FGD checklist that entailed gender sensitive questions, separate discussion groups of men and women were used. In total, 24 FGDs were administered, with the participation of 6-10 individuals each. Pre-prepared checklist was used by focus group facilitators to guide discussions. Likewise, key informants interviews (KII) were also conducted with informants from selected VESAs, RuSACCOs and MFIs.

2.3. Survey Sampling Design

Sampling

In line with the 2015 IR assessment TOR and prior IR assessments, this assessment also adopted a sample size of roughly 800 HHs. However, in an attempt to correct previous assessments, which disregarded the number of beneficiary HHs in each IP, this assessment applied Probability Proportional to Size (PPS) technique as a corrective measure. A two-stage cluster design was applied to select the rural kebeles and households based upon the estimated sample size to detect changes over time.

With the assumption of capturing variation within a kebele, the sampling started by setting to select 30 HHs within the kebele. Based on the assumption, it was needed to select either 26 or 27 kebeles to make up a 800 sample size. Selecting only 26 kebeles may lower the total sample size. Therefore, it was decided to select 27 kebeles in order to have a total of 810 sample HHs (27*30=810). The 27 rural kebeles were selected using probability proportional to size sampling (PPS) technique (see Appendix B for selected sample of kebeles).

Similarly, a proportional sample allocation technique was employed to assure appropriate representation of FHHs at the sampled kebele level by allocating quotas according to proportion of FHHs in the kebeles[1]. The results summarized in Table 2.1 shows that about 30% of sample households were female headed (FHHs).

Table 2.1: Description of Sample Size, by IP and Gender of HH Head

Gender of HH head	*CARE*		*CRS/MCS*		*REST*		*ORDA*		*ASE*		*Total*	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Female	19	24.4	37	25.9	97	37.5	44	23.3	20	22.5	217	28.63
Male	59	75.6	106	74.1	162	62.5	145	76.7	69	77.5	541	71.37
Total	78	100	143	100	259	100	189	100	89	100	758	100

Source: GRAD IR Assessment 2015 Survey Data Set

Qualitative Data

Qualitative data was collected simultaneously with the quantitative data. FGDs of both men and women and KIIs with VESA leaders were conducted in kebeles selected for the household survey. Woreda branch managers of MFIs were also interviewed regarding access to finance.

Selection of FGD participants excluded those households selected for the quantitative interview to prevent pre-informed and guided responses resulting from quantitative interview exposure. On the other hand, the selection of key informants followed a purposive sampling of individuals from VESA management positions and MFI woreda branch managers. Accordingly, the following FGDs and KIIs were conducted.

- Ten KIIs were conducted with individuals (three female and seven male) in VESA leadership
- Ten KIIs were conducted with the woreda level MFI and RuSACCO management level personnel
- Twelve separate FGDs for men and women (each) were conducted. Two VESA leaders were purposely made part of every group discussion.

The qualitative information from the FGDs and KIIs were summarized, translated and structured under the respective questions. The information was then analyzed to identify

[1]To have adequate representation of FHHs, first we calculated the proportion of FHHs within the entire beneficiary list of HH in the selected kebele, then we apply the same proportion (as a quota) on selection of sample FHHs and MHH on sampling of HHs within the kebele, with a minimum 30% representation of FHHs.

patterns in responses and contextual information to help explain the quantitative findings. Responses from participants were triangulated across quantitative findings to crosscheck the reliability of information and to identify differences in perception between groups based on gender, social or economic status, and ethnic group.

2.4. Challenges/Limitations with Data Collection and the Assessment in General

The timing of the survey proved very challenging for respondents. As the month of June and July were the beginning of the rainy season, farmer HHs were occupied with agricultural activities. The field team learned that almost all respondents preferred the conduction of the interview sometime in late April, as their engagements will not be as much at that time. Moreover, due to heavy rain, most roads in the rural areas were not navigable by vehicle, which made reaching kebeles and households laborious and in some cases forcing GPS teams to resort to the reserve kebeles in the sample.

The other challenge was with the limited observations on the children. This was a challenge on the analysis by creating drawback on representation. Proper reconnaissance survey of child presence in the HHs should have been made while preparing sample frame for the sampling, so as to have a representative sample of HHs with children. Similar assessments in the future should take lesson on this.

3. Findings of the Assessment

In this section, the finding of the survey assessment is presented. As noted previously, GRAD's ultimate goal is graduation with resilience of chronically food insecure households. Accordingly, for this goal realization, GRAD holds three correlated intervention components (results):

Result 1: Enhance livelihood options of chronically food insecure households
Result 2: Improve community and household resilience
Result 3: Strengthen enabling environment to promote scale-up and sustainability

Subsequently, in this IR assessment, the achievements with Result 1 and 2 of the project[2] are assessed. This section presents the findings of the assessments.

3.1. Result 1 - Enhanced Livelihood Options of Chronically Food Insecure Households

Under Result 1, the project intervened to enhance livelihood options of chronically food insecure households. This intervention, as per its strategic components, has three intermediate results to be achieved.

[2]Assessment of Result 3 is dropped at the request of CARE Ethiopia, as outcomes at that level are not measurable at the household or community level.

IR 1.1 - On and off-farm economic opportunities, inclusive value chains and market assess for target HHs stimulated
IR 1.2 – Access to a range of financial products and services expanded
IR 1.3 – Extension service upgraded

Below, the achievements under each IR for Result 1 are presented.

3.1.1. IR 1.1 -On and off-farm Economic Opportunities, Inclusive Value Chains and Market Access for Targeted HHs Stimulated

In order to assess how the project is achieving IR 1.1, indicators were developed with a reference to project results framework and supplementary indicators provided by CARE Ethiopia. These indicators are grouped under: income, access to market, and access to agricultural inputs.

A. Income

GRAD provides support to beneficiary HHs to engage in a range of income sources. These income sources as the project defines them include: (a) income generating activities (IGA) and (b) value chain activities (VC). VCs, uniquely selected in each GRAD woreda, is production in which inputs and services are brought together and then used to grow, transform, and/or manufacture a product. The concept involves how the product then moves physically from the producer to the customer; how value increases along the way and how these processes are financed. GRAD IGAs, on the other hand, are small-scale activities selected and managed by individuals often involving self-financing or minor credit schemes involvement.

Accordingly, the project promotes a list IGAs and VCs to beneficiaries. Project promoted IGA include: petty trade (including grains); small-scale vegetable production and sales; poultry production and sales; small-scale livestock sales; retail (including beauty salons, restaurants, beverage and micro-franchise); donkey/horse cart and handicrafts. The project promoted VCs include: livestock fattening (cattle and shoat); malt barley; pulses (including faba bean, white pea bean and red bean); honey; and vegetables (including red pepper, onion, tomato, and potato).

Table 3.1a, below, presents the percentage distribution of GRAD HHs who have adopted none, one, or two or more IGAs and VCs since the start of GRAD. The assessment found that about 79.5% and 65.3% of the sample HHs have adopted at least one new IGA and VC, respectively, since the start of GRAD (see table 3.1b for details by IP and gender).

Table 3.1a: Percentage HHs by the Number of IGA and VC they engaged in since start of GRAD, GRAD Total

Type of Income source	None	One	Two or More
IGA	20.4	24.5	55.0
VC	34.7	39.2	26.1

Source: GRAD IR Assessment 2015 Survey

Table 3.1b: Percentage of HHs Engaged IGA and VC Since start of GRAD

IPs	Type of Income source	MHH			FHH		
		None	One	Two or More	None	One	Two or More
CARE	IGA	31.6	24.6	43.9	66.7	27.8	5.6
	VC	64.9	14.0	21.1	66.7	27.8	5.6
CRS	IGA	13.1	37.4	49.5	15.8	28.9	55.3
	VC	25.2	43.9	30.8	34.2	50.0	15.8
REST	IGA	4.9	17.2	77.9	8.2	14.4	77.3
	VC	29.4	42.9	27.6	42.3	49.5	8.2
ORDA	IGA	46.9	22.8	30.3	20.5	31.8	47.7
	VC	22.8	33.1	44.1	25.0	40.9	34.1
ASE	IGA	10.1	30.4	59.4	25.0	30.0	45.0
	VC	47.8	34.8	17.4	40.0	50.0	10.0
GRAD Average	IGA	21.3	25.1	53.6	18.4	23.0	58.5
	VC	32.9	36.4	30.7	39.2	46.1	14.7

Source: GRAD IR Assessment 2015 Survey

Moreover, data was collected on the types of IGA and VCs adoption since the start of GRAD. For IGA, it was found that beneficiary HH were engaged in several types of IGAs including poultry (58%), petty trade (32%), vegetables (32%), and livestock (29%). When seen closely by IP, it was observed that REST is doing better in promotion of these IGAs. Table 3.2, below presents data on type of new IGAs adopted by GRAD HHs, separated by sex of the HH head.

Table 3.2: Type of New IGAs Adoption since start of GRAD, Percentage of HHs

Types of IGA	CARE		CRS		REST		ORDA		ASE		GRAD Average
	MHH	FHH	MHH	FHH	MHH	FHH	MHH	FHH	MHH	FHH	
Petty trade	36.8	5.6	30.8	39.5	45.4	44.3	10.3	25.0	30.4	35.0	31.8
Vegetables	24.6	16.7	18.7	21.1	40.5	36.1	34.5	43.2	33.3	25.0	32.1
Poultry	38.6	11.1	65.4	57.9	79.8	74.2	33.8	38.6	60.9	50.0	57.5
Livestock (rearing and trading)	10.5	0.0	23.4	18.4	56.4	34.0	17.2	27.3	20.3	20.0	28.8
Retail trade & Services	1.8	0.0	.9	2.6	4.9	12.4	2.1	15.9	5.8	0.0	4.9
Donkey/horse cart	17.5	0.0	13.1	5.3	10.4	3.1	.7	2.3	11.6	0.0	7.4
Handicrafts & trade	5.3	0.0	4.7	0.0	8.6	14.4	6.9	15.9	14.5	10.0	8.6
Other	0.0	5.6	4.7	13.2	.6	1.0	2.8	0.0	8.7	5.0	3.2

Source: GRAD IR Assessment 2015 Survey

As for the VCs, the assessment found that shoat fattening was adopted in majority of cases (46%), followed by cattle fattening (19%) and onion production and sales (12%) (See table 3.3 for details by IP). Here, it is relevant to bear in mind that less diversification of economic activity will likely imply high risk of vulnerability to shock of income loss.

Qualitative findings also indicated that engagement in income sources among men and women showed a marked difference, where men dominated VC engagement and women predominantly taking part in IGAs. Poultry, selling eggs, is the most commonly reported IGA among women in almost all kebeles where FGDs were conducted. According to a majority of the respondents, high demand for eggs and low inputs both in material and human labor were noted as the principal factors of its wide adoption and profitability. Whereas, shoats fattening was the most commonly reported VC engagement in all kebeles where FGDs were conducted. Increased access to credit, shorter time required to fatten shoats, and high market demand were indicated for its broader adoption. Moreover, the FGDs findings indicated that vegetable production, mainly onion production, was reported to be the other major adopted VC.

Table 3.3: Type of VC Adoption since start of GRAD, Percentage of HHs

Types of VC		CARE		CRS/MCS		REST		ORDA		ASE		GRAD Average
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Livestock	Cattle fattening	1.8	0.0	0.0	0.0	44.2	21.6	19.3	11.4	17.4	15.0	18.7
	Shoat fattening	31.6	11.1	68.2	60.5	49.3	52.1	35.9	34.1	43.5	45.0	45.7
Cereal	Malt barley	0.0	0.0	0.0	0.0	0.0	0.0	20.0	15.9	0.0	0.0	7.6
Honey	Honey	3.5	0.0	0.0	0.0	10.6	1.4	4.8	2.3	0.0	0.0	3.6
Pulses	Faba beans	0.0	0.0	0.0	5.3	11.3	9.8	0.0	0.0	1.4	0.0	2.5
	White pea beans	0.0	0.0	23.4	13.2	0.0	0.0	2.1	0.0	0.0	0.0	6.6
	Red beans	7.0	22.2	1.9	2.6	0.0	0.0	0.0	0.0	1.4	5.0	2.6
Vegetables	Red-Pepper	5.3	5.6	12.1	2.6	5.6	0.0	0.0	0.0	2.9	5.0	4.1
	Onion	3.5	0.0	0.0	2.6	26.2	13.8	24.8	11.4	5.8	0.0	11.6
	Tomato	0.0	0.0	0.0	2.6	8.2	0.0	0.0	0.0	2.9	0.0	1.4
	Potato	8.8	0.0	2.8	5.3	57.1	55.0	26.9	47.7	0.0	0.0	18.3

Source: GRAD IR Assessment 2015 Survey

One of the strategic directions of GRAD to promote beneficiaries' engagement in VC and IGAs is the provision of financial support mainly through MFIs. To this end, the KII with selected MFIs has confirmed that loan guarantee has been received from GRAD to promote financial access to beneficiaries with accompanied strengthening of savings of beneficiaries.

Accordingly, the financial support provisions from the beneficiaries' end was assessed by collecting information on source of finance on their VC engagement. Subsequently, it was found out that MFIs were the major providers of finance for VCs, where 85% engaged in cattle fattening and 58% engaged in shoat fattening reported that they received credit from MFI to engage in the VC. On the other hand, the limited engagement in other VC types was also associated with limited use finance from MFIs, where they mainly used their personal resources to engage in the VCs. As depicted in the table below, even if their engagement was limited, those engaged in faba beans (77%), pulse-red beans (75%), white pea beans (66%), tomato (67%), and red pepper (63%) reported that they used their own resources to engage in the VC (See Table 3.4).

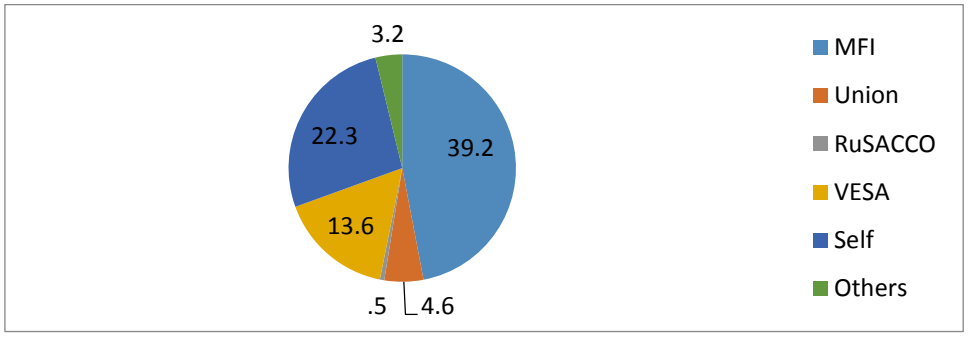
Table 3.4: Source of Finance for VC engagement, Percentage of HHs used Specific Source of Finance for Specific VC

Type of VC		Source of Finance for VC engagements					
		MFI	Union	RuSACCO	VESA	Self	Others
Livestock	Cattle fattening	84.5	4.2	0.7	7.7	2.1	0.7
	Shoat fattening	57.5	2.9	0	23.9	8.9	6.8
Cereal	Malt barley	27.1	25	6.3	12.5	29.2	0
Honey	Honey	48	4	0	16	32	0
Pulses	Faba beans	23.1	0	0	0	76.9	0
	White pea beans	18.8	3.1	0	12.5	65.6	0
	Red beans	16.7	0	0	8.3	75	0
Vegetables	Red-Pepper	25.7	0	0	5.7	62.9	5.7
	Onion	20.3	5.8	1.4	17.4	52.2	2.9
	Tomato	11.1	11.1	0	11.1	66.7	0
	Potato	23.1	5.6	0	17.6	52.8	0.9

Source: GRAD IR Assessment 2015 Survey

When we look at the overall picture, on average, for all VCs, MFI financing was the most common (39.2%), followed by self-financing (22.3%), and VESA (13.6%). Only a small proportion of GRAD HHs relied on Unions, RuSACCOs and others to access finance for VCs (see fig 3.1). For most VCs, HHs that self-funded their activities earned much less in profits. For instance, HHs engaged in the shoat fattening with an MFI loan earned ETB 2,226 per year on average, or about 38% greater than profits when the VC engagement was self finance.

Fig 3.1: Source of Finance for VC engagement, Percentage of HHs



Source: GRAD IR Assessment 2015 Survey

Income earnings

Once we assess the rates of engagements in IGAs and VCs, it is also critical to assess profitability of these activities, as profitability will insure sustainable engagements. Accordingly, for IGAs we measure net income earned and for VC we measured net profits as per engagement of beneficiaries. Subsequently, the survey quantified the average net income obtained from IGAs in the last 12 months by the HHs. Thus, as we can observe from table 3.5a below that the IGAs are providing positive returns, though still limited in reference to international poverty line and there is also significant variability as observed from high standard deviations.

Table 3.5a: Average net income in the last 12 months from IGAs

Type of IGA	Observations	Mean	Std. Dev.
Petty trade	241	2,604.2	2,971.7
Vegetables	243	2,383.2	6,261.1
Poultry	436	833.3	1,053.6
Livestock (rearing and trading)	218	2,669.1	2,758.9
Retail trade & Services	37	3,597.6	5,390.4
Donkey/horse cart	56	3,126.8	3,685.4
Handicrafts & trade	65	2,725.1	6,070.7
Other	24	1,892.5	2,105.3

Source: GRAD IR Assessment 2015 Survey

Furthermore, in order to find out the average net income from all new IGAs HHs engaged in, the statistic shown on table 3.5b was computed. The results show that on the average, GRAD HHs earned ETB 3,539 in the last 12 months from all the new IGAs they engaged in.

Table 3.5b: Average Net HH Income from All New IGAs in the Last 12 Months

Observations*	Mean	Std. Deviation
753	3235	4328.78

*Source: GRAD IR Assessment 2015 Survey; *excludes a small set of extreme outliers on the high side.*

Similarly for VCs, information on sales and input costs were collected to measure profit levels. Conceptually, as noted above, for any VC activity it was expected that there will be value additions on a given product and that value addition was accordingly expected to fetch some profit margins. Thus, the assessment indicated that average profits ranged from ETB 8,174 for cattle fattening to ETB 1,168 for potato. Table 3.6 below shows results of the survey on average total profit values of each VCs and corresponding profit margins (measured as percentage of input costs).

Furthermore, majority of FGD findings reported that earned profits are attributed to the receipt of technical trainings and improved access to credit and agricultural inputs. On the other hand, shortage of rain was the most common reason indicated for profit loss in IGA and VC engagements.

Table 3.6: Profits from New/Strengthened Value Chain Engagement, during the last 12 months

Type of VC		Amount Produced by Relevant Unit of Measurement	Mean total value of product Sales	Average Amount of Sales	Mean Total Value of Purchased input Cost	Mean profit from VC	Inputs as Percentage of Costs	Profit margin (mean profit/mean input costs*100)
Livestock	Cattle fattening	2	10,671	2	2,497	8,174	23.40	327.4

	Shoat fattening	6	3,019	4	945	2,070	31.29	219.6
Cereal	Malt barley	4	2,492	2.2	887	1,606	35.57	181.1
Honey	Honey	29	2,576	25	294	2,282	11.40	776.9
Pulses	White pea	5	2,377	2.5	435	1,942	18.28	446.9
	Red beans	3.13	2,254	4.4	379	1,875	16.84	493.9
	Faba beans	3	1,464	1.3	308	1,156	21.07	374.7
Vegetables	Red-Pepper	11.26	6,317.2	10.58	1,133	5,184	17.93	457.6
	Onion	8.90	6,361	6.76	1,090	5,271	17.14	483.5
	Tomato	6.43	2,507	5.43	496	2,011	19.77	405.7
	Potato	10.3	1,577	4.8	409	1,168	25.95	285.3

Source: GRAD IR Assessment 2015 Survey

An attempt was also made to find out the total amount of net income obtained from both IGA and VC that was earned by GRAD HHs in the last 12 months. As indicated in Table 3.7, the average net annual income for GRAD HHs was ETB 6,608.6 (or about $330.40)[3]. The increase in annual income was assessed in comparison to the findings of the 2014 IR Assessment findings. According to 2014 IR assessment, total annual average income GRAD HHs reported was ETB 3,218. Thus, in comparison to last year, it can be seen that an average annual income increment of ETB 3,390.6 ($169.50) has occurred.

Table 3.7: Average Net Income from all IGA and VC in the Last 12 Months, by IP and GRAD average

CARE	CRS	REST	ORDA	ASE	GRAD Average
2,731.56	4,418.78	11,327.56	4,758.74	3,586.16	6,608.6

Source: GRAD IR Assessment 2015 Survey

To be "engaged" in a given VC implies that HHs participate during multiple cycles, hopefully improving production and increasing income each time. In this regard, the assessment attempted to capture how many production cycles GRAD HHs have completed in the VCs they are engaged in. Accordingly the study found that, HHs that were engaged in white pea bean (92.3%), honey (83.3%), and faba bean (71.4 %) reported the highest engagement in more than one round or cycle of the VC, implying such VCs are likely to be more sustainable. Similarly, a fair percentage of HH engaged in cattle fattening (50.4%), shoat fattening (45.2%), malt barley (33.3%), red pepper (50.0%), tomato (42.9), red bean (23.5%) and onion (43.8%) production, also reported that they have completed more than one round or cycle of the VC. Reportedly, as noted by FGD participants, limited market access was a cause for less continued engagement in a given VC. In the section below, the issues of market access are discussed.

Access to Market

Supporting a good marketing system to sustain profitability in VCs is one sub-component of the project. To this end, GRAD promotes access to markets by supporting the

[3] Please note that all currency exchange was done using: $1 = ETB 20.0

establishment of Farmers Economic and Marketing Associations (FEMA) and/or supporting marketing cooperatives. In view of this, beneficiary HHs aggregation of product and use of FEMAs or cooperatives to sell their produce was assessed.

The assessment found that sample HHs' use of FEMA to sell their product was 6%. This low figure was associated with limited membership of HHs with FEMA (only 9% report membership with FEMA). Moreover, HHs use of cooperatives (8%) or other aggregators (10%) was also found to be limited. Similarly, frequency of sale through these aggregators was also assessed, with the assumption that high frequency of sales through an aggregator could also be taken as a good sign for good market linkage or being satisfaction with the aggregator. Nonetheless, it was found that only 36.4% of those reported selling through FEMA, noted that they sold more than once through FEMA. Likewise, a significant percentage of respondents stated to have sold through cooperatives (40%) and other aggregators (54.5%) more than once.

Table 3.8: Number of Times HHs Sold Products through the Same Aggregation Point

	Never	**Once**	**More than Once**
	%	%	%
FEMA	6.8	56.8	36.4
Farmers Cooperatives	11.7	48.3	40
Other Aggregators	1.3	44.2	54.5

Source: GRAD IR Assessment 2015 Survey

Reportedly, as noted during FGDs, HHs prefer to sell their products (particularly true for livestock VC) in local markets, mainly because the aggregators buy by weight and such approach often results in lower prices. The quantitative survey also supported this, showing HHs were not as happy with the prices they received from aggregators. It was found that, out of those report selling through FEMA, the price they received was mostly fair, is reported only in 57 % of case and 37 % reported that the price they receive is not fair. Likewise, while 46% of sellers, through cooperatives, and 60% of sellers, through other aggregators, reported that they received mostly fair price; 17% of sellers, through cooperatives and 29% of sellers, through other aggregators, reported that the price they received was unfair. Further analysis was also made to see if the use of FEMA or other aggregators varies by sex, yet, no significant difference was observed between MHHs and FHHs.

Table 3.9: Percentage of HHs Who Believe the Price Paid For Their Products When Selling Though Aggregators Is Fair/Reflects the Market Value

	Always	Most of the times	Rarely
FEMA	6.2	56.2	37.5
Farmers cooperatives	37.5	45.8	16.7
Other aggregators	11.9	59.5	28.6

Source: GRAD IR Assessment 2015 Survey

FGDs conducted with men and women on access to market revealed lack of linkage to output market for some products such as haricot beans, onion, pepper and potato. Discussion conducted between women on access to market also indicated that due to

their [women's] engagement in small IGAs, with smaller volume of products availed for the market they tended to rely on local open markets to sell their products.

Access to Agricultural Inputs, Technologies and Services

For the realization of IR-1, the project supports beneficiary HHs to make better use of to improved technologies within the promoted VCs. Accordingly, the project promotes selected agricultural practices depicted in the table below.

Table 3.10: GRAD promoted list of improved technologies or management practices by VC

<table>
<tr><td rowspan="4">Livestock related practices:

Effective Micro-organism
Electric Chopper Machine
Manual Chopper
UMB
Silage making
Concentrate and industrial by-product feed utilization
Urea treatment</td><td>Honey:

Colony multiplication at HH level
Low cost transitional hives made of local materials
Modern bee hives</td><td>Red Pepper:

Organic fertilizer
Mold board Plow</td></tr>
<tr><td>Pulse:

Super Grain Bags</td><td rowspan="3">Onion:
Rope and washer pump
Improved Seed
Improved Practices (Row planting, improved irrigation, water management, etc.)
Use of fertilizer</td></tr>
<tr><td>Potato:
Improved seed potato varieties
DLS (Diffused Light Storage)</td></tr>
</table>

Source: GRAD VC Study Document

It was found that those engaged in tomato VC (92%) report greatest use of improved seed varieties, followed by onion (75%), red beans (68%), malt barley (64%), red pepper (65%), white pea bean (58%), potato (66%) and faba bean (29%). Regarding the specific VC of apiculture, about 83% have used low cost transitional beehives, while 75% and 67% reported that they have used colony multiplication and modern bee hives, respectively.

The assessment has also looked at two specific technologies use of GRAD HHs: the mold board plough and diffused light storage as per the respective VCs. The results indicated that about 38.8% of the HHs engaged in red pepper production reported the use of mold board plough, while 46% of those engaged in potato production reported the use of diffused light storage (DLS).

The study further looked at six specific agricultural technologies/inputs use of GRAD HHs. As presented in table 3.11 below, mostly HHs engaged in vegetable production used improved agricultural practices such as row planting and irrigation. Likewise, use of chemical fertilizer was reported in majority of cases in production of malt barley (91.4%), onion (89.5%) and tomato (80.8%). Similarly, it was promoted to use pesticides and herbicides and also super grain bags for pulses to reduce post-harvest losses (see table 3.11 for details).

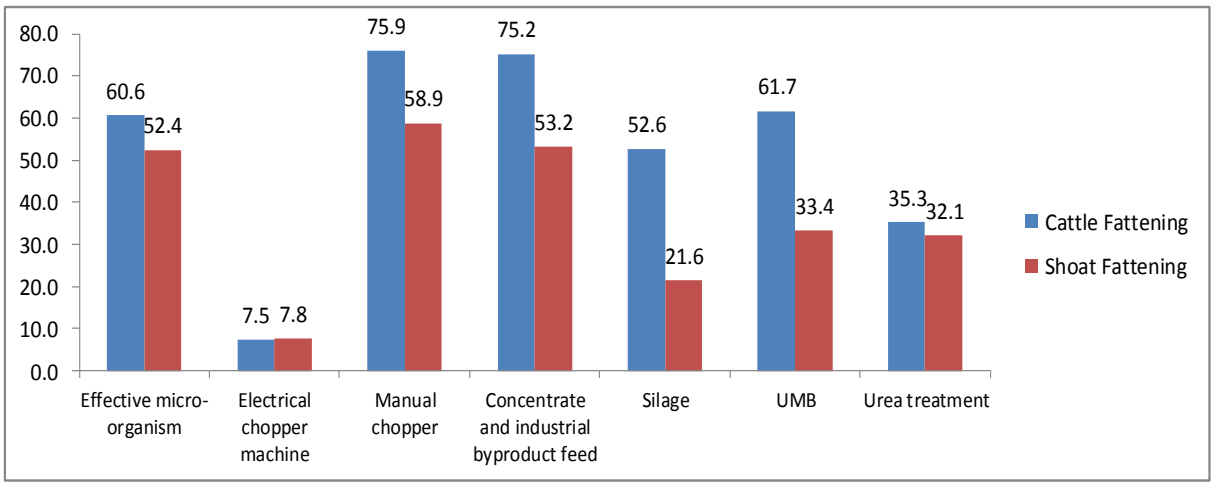
Table 3.11: Use of Technology/Inputs among HHs Engaged in specific VCs, percentage of HHs

Technology/Input	Cereal	Vegetable				Pulses		
	Malt Barley	Onion	Tomato	Red Pepper	Potato	Faba Beans	Red Beans	White Beans
Improved seed variety	64.3	75.2	92.6	65.3	66.7	29.4	68.4	58.7
Improved agricultural practices (row planting, irrigation, etc.)	-	81.9	92.3		67	-	-	-
Chemical Fertilizer	91.4	89.5	80.8		-	-	-	-
Organic Fertilizer	92.9		-	85.7	-	-	-	-
Herbicide/Pesticide	60	-	-		-	53	37	47
Super grain bags	-	-	-		-	29.4	37	24
Rope & washer pump		27.6	42.3		-	-	-	-
DLS					46			
Mold Board Plough				38.8				

Source: GRAD IR Assessment 2015 Survey

The assessment also looked at the use of inputs specific to cattle and shoat fattening. The use of manual choppers (75.9% for cattle fattening, 58.9% shoat fattening) and concentrate and industrial byproduct feed (75.2% for cattle fattening, 53.2% shoat fattening) were some of the most commonly used inputs. Electrical chopper machine was reported the least used, as reported only by 7.5% for cattle fattening, 7.8% shoat fattening (See fig 3.2 below).

Fig 3.2: Improved technologies use for cattle and shoat fattening, percentage of HHS



Source: GRAD IR Assessment 2015 Survey

The IR assessment also attempted to find out the source of agricultural inputs for the VCs. Accordingly, the responses obtained from HHs engaged in the respective VCs reported agricultural bureaus to be the most common source for most VC activities. GRAD agro-dealers were reported to be common sources of inputs for cattle and shoat fattening, while cooperatives commonly served as sources of input for malt barley as well as vegetables (see table 3.12 for details).

Table 3.12: Sources of agricultural inputs of HHs engaged in specific VC, Percentage of HHs

Type of VC		Cooperative	Agri. Bureau	GRAD Agro-dealer	Other private sector	Model farmer	Other
Livestock	Cattle fattening	10.5	31.6	36.1	10.5	2.3	9.0
	Shoat fattening	12.8	32.1	31.0	10.1	.9	13.1
Cereal	Malt barley	44.3	27.1	20.0	5.7	0.0	2.9
Honey	Honey	8.3	37.5	20.8	12.5	8.3	12.5
Pulses	Pulse faba beans	35.3	11.8	11.8	5.9	0.0	35.3
	Pulse white pea beans	15.2	45.7	10.9	4.3	4.3	19.6
	Pulse red beans	10.5	63.2	10.5	5.3	0.0	10.5
Vegetables	Red pepper	28.6	44.9	12.2	0.0	4.1	10.2
	Onion	29.5	42.9	12.4	6.7	3.8	4.8
	Tomato	42.3	42.3	11.5	0.0	0.0	3.8
	Potato	18.2	25.3	28.3	4.0	0.0	24.2

Source: GRAD IR Assessment 2015 Survey

GRAD HHs engaged in VCs were also asked about their perception on affordability of inputs for specific VCs engagement. As can be seen from Table 3.13 below, the majority of respondents found the price of the inputs to be either very or moderately affordable.

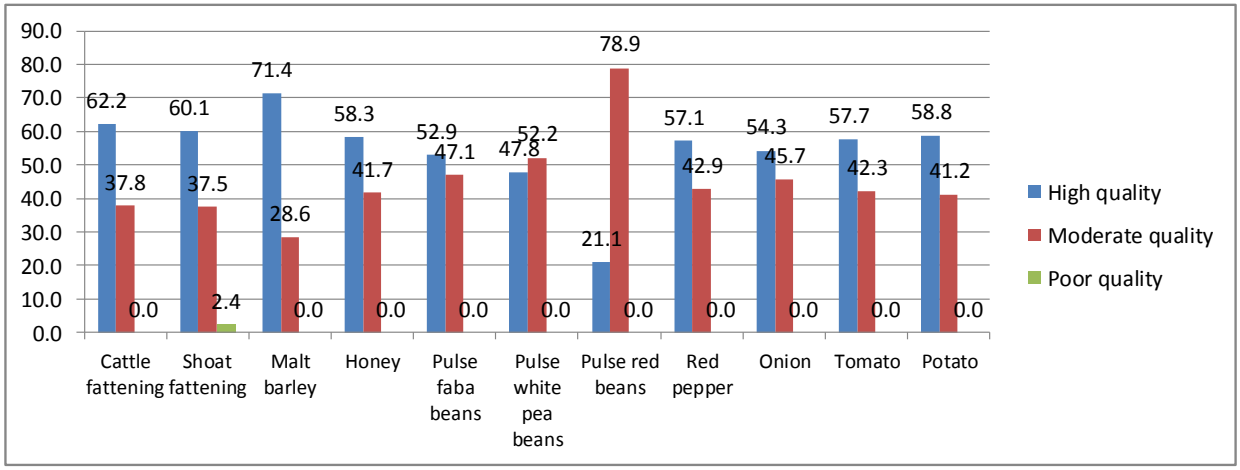
Table 3.13: Perceived Affordability of Agricultural inputs as perceived by HHs engaged in specific VC, Percentage of HHs

Type of VC		Male				Female			
		Very affordable	Moderately affordable	Slightly affordable	Not affordable	Very affordable	Moderately affordable	Slightly affordable	Not affordable
Livestock	Cattle fattening	36.2	47.6	10.5	5.7	32.1	42.9	17.9	7.1
	Shoat fattening	31.1	52.9	8.4	7.6	29.6	57.1	9.2	4.1
Cereals	Malt barley	14.0	52.6	26.3	7.0	15.4	46.2	23.1	15.4
Honey	Honey	36.4	18.2	22.7	22.7	0.0	50.0	50.0	0.0
Pulses	Pulse faba beans	23.1	23.1	7.7	46.2	50.0	25.0	0.0	25.0
	Pulse white pea beans	23.1	59.0	7.7	10.3	14.3	57.1	0.0	28.6
	Pulse red beans	6.7	66.7	6.7	20.0	0.0	100.0	0.0	0.0
Vegetables	Red pepper	22.0	46.3	29.3	2.4	50.0	37.5	12.5	0.0
	Onion	19.1	52.8	19.1	9.0	31.3	43.8	18.8	6.3
	Tomato	25.0	37.5	33.3	4.2	0.0	50.0	50.0	0.0
	Potato	18.8	53.6	23.2	4.3	21.9	46.9	25.0	6.3

Source: GRAD IR Assessment 2015 Survey

The study also assessed the perception on quality of inputs for specific VC engagement. In this regard, more than 50% of the HHs engaged in different VCs reported that they perceived the quality of the inputs they received to be of high quality (see Figure 3.3 for details).

Fig 3.3: Perceived Quality of Agricultural inputs by HHs engaged in specific VC, Percentage of HHs



Source: GRAD IR Assessment 2015 Survey

3.1.2: IR.1.2 - An Inclusive Financial Sector Promoted and Access to a Range of Financial Products and Services Expanded

Another sub-component intervention of GRAD is the promotion of access to a range of financial services, with the argument that good access to financial services plays a crucial role in IGA and mostly VC engagements. Accordingly, in this section, the study assessed the use of financial services mainly in terms of saving amounts and loan/credit taking experiences.

Savings

The analysis of savings practices first began by assessing whether the HH has an account or is a member of respective financial institutions. Accordingly, it was found that 92% of HHs were members of a VESA[4] while 44.3% and 5.7% reported having an account with MFI and bank, respectively. Similarly, about 14% reported having membership with a RuSACCO. Thus, the financial access findings below were based on this percentage of HHs.

Data in the study indicated that HHs have saved high amounts in the past year. It is observed from Table 3.14 below that the average current saving balance of HHs was comparable to their savings during the year, implying that these saving habits began due to the promotion of projects. It was also found that savings happened in a variety of

[4] All GRAD HHs are required to be members of VESAs. The gap here may be due to the perception by some that a single family member is the VESA "member". Someone could answer no to the question, "are you a VESA member?".

financial service providers. However, it was also observed that saving levels were significantly different among HHs residing in different areas. REST appeared to be doing well in Tigray region in promoting the practice of saving (see table 3.14a to 3.14d below for details on savings).

According to KII with VESAs, it was found that membership in VESA groups was increasing over time, with non PSNP HHs showing interest to join groups. Ability to take loan for a wide variety of reasons ranging from purchase of agricultural inputs to medical expenses coverage and lower saving amount has been noted as a factor for the increasing number of membership in VESA groups.

Table 3.14: Average saving during last year and Average Current Balance In ETB

3.14a: Percentage of HHs report having an account by FS provider

Membership with FS providers	Percentage of HHs
VESA	92.2
Cooperative union	13.7
RuSACCO	13.6
MFI	44.3
Bank	5.7

Source: GRAD IR Assessment 2015 Survey

3.14b: Average saving during last year by FS provider, in ETB

Type of FS provider	Implementing Partner					Average
	CARE	CRS/MCS	REST	ORDA	ASE	
VESA	626	211	466	236	324	354.3
Cooperative union	209	253	524	254	129	360.9
RuSaCCo	900	-	749	302	-	723.9
MFI	592	408	1,326.0	600	347	862
Bank	2,272.0	1,407	10,500.0	8,163	3,971	4,108.26

Source: GRAD IR Assessment 2015 Survey

N.B: Care should be taken in interpreting these results, as averages were calculated for sub-groups reporting savings in the particular institutions. For instance, few GRAD HHs have savings in banks but the amount saved for those few was relatively high.

3.14c: Average current saving balance, by FS provider, in ETB

Type of FS provider	Implementing Partner					GRAD average
	CARE	CRS/MCS	REST	ORDA	ASE	
VESA	653	468	729	375	478	548.5
Cooperative union	132	512	1,202	535	680	802.3
RuSaCCo	900	-	1,262	347	-	1,204.0
MFI	490	351	21,801	735	831	10,171.6
Bank	2,725	2,003	11,375	9,544	911	4,251.3

Source: GRAD IR Assessment 2015 Survey

N.B: Care should be taken in interpreting these results, as variability measured by standard deviations are significantly higher.

Furthermore, adding up HHs savings in all institutions, it was found that the average total current HH saving in all institutions was 5,820 ETB.

3.14d: Average total current balance with all institutions

Total Current Balance in All Institutions	Implementing Partner					GRAD Average
	CARE	CRS	REST	ORDA	ASE	
	1,087.89	944.28	15,076.35	1,106.75	892.21	5,820.56

Source: GRAD IR Assessment 2015 Survey

Borrowing

The study also undertook assessment of the sample HHs' loan status. Use of VESA and MFI as sources for credit is one of the strategic approaches of GRAD. Data were analyzed to find out if HHs which were members of the above financial service providers and have taken loan from these institutions. Accordingly, it was found that MFIs were the main provider of loan to GRAD HHs, where on average 92.3% of sample HHs reported that they received loan from MFI (out of the 44.3% who reported having account with MFI). The second source that provided loan to GRAD HH were VESA, where on average 57% of sample HHs reported that they received loan from their VESA (see table 3.15a below for details by IP).

Common reasons identified for taking loans from VESA groups, during KIIs and FGDs were purchase of fertilizer, improved seed variety and medical expenses coverage. Key informant interview with MFI woreda branch heads disclosed that the majority of loans taken by GRAD beneficiaries went towards fattening, purchase of fertilizers, and trading of consumable products.

Table 3.15a: Percentage of Member HHs that has ever taken loan from different sources

Type of FS provider	Implementing Partners					GRAD average[5]
	CARE	CRS/MCS	REST	ORDA	ASE	
VESA	36.5	38.6	51.7	78.6	69.7	57.0
Cooperative union	-	15.4	21.7	55.2	28.6	28.0
RuSaCCo	100.0	-	15.6	50.0	-	18.0
MFI	70.8	93.2	96.7	85.5	96.8	92.3
Bank	-	-	-	-	-	-

Source: GRAD IR Assessment 2015 Survey

In similar way, repeated loan was assessed, as an indication that HHs engagement in IGA or VC is sustainable. In light of this, the study found that 46% with VESA, 30% with cooperative unions, 26% with RuSACCOs and 29% with MFIs reported that HHs have

[5] It is important to note that N values are not presented here but that the averages were calculated only for those HHs claiming membership in the given institution.

taken loans more than once. The study further assessed the amount of total loans taken from all the three sources by GRAD HHs. The results showed that the average amount of loan from all sources was ETB 4,473, with a minimum of ETB 1,684 in CARE and maximum of ETB 6,430 in REST operational areas.

Table 3.15b: Average total loan from all sources

Total loan from all sources	Implementing Partner					GRAD Average
	CARE	CRS/MCS	REST	ORDA	ASE	
	1,684.00	4,353.84	6,430.24	3,060.63	3,300.62	4,473.42

Source: GRAD IR Assessment 2015 Survey

Likewise, those reportedly taking loans were also asked whether they prepared a business plan for loan request. The findings are presented in Table 3.16 below. It is observed from the table, that the finding was mixed among different IPs. Nearly all of HHs living in the woredas where ORDA operates, prepared a business plan when taking loans from VESA, cooperative unions, RuSACCO or MFIs. Similarly, a significant majority of HHs in the areas where CRS/MCS, REST and ASE operate created business plans to seek loan from VESA, cooperative union and MFI. An interesting deviation from this finding was observed as 70.6% of HHs living in the areas where CARE operates took loan without the preparation of business plans when seeking a loan from the MFI.

Table 3.16: Percentage of HHs that prepared a Business Plan to take a Loan

Type of FS provider	Implementing partner					GRAD Average
	CARE	CRS/MCS	REST	ORDA	ASE	
VESA	65.2	90.2	57.5	91.6	82.3	78.0
Cooperative union	-	100.0	40.0	93.8	100.0	76.7
RuSaCCo	0.0	-	86.7	100.0	-	84.2
MFI	29.4	75.4	68.7	100.0	73.3	73.2

Source: GRAD IR Assessment 2015 Survey

Moreover, the HHs surveyed were also asked to reveal the proportion of loans that they used for the purpose as stated in the business plan or for selected VC engagement. The results showed a majority of HHs spent all of the money for the intended purposes. Table 3.17 depicts that 89.5% of HHs and 66.7% of HHs who took loan from RuSACCOs and cooperative unions, respectively, spent all of the loan money for the stated purposes in the business plan. Some few HHs reported they did spend part of the loan for other purposes.

Likewise, KII with VESA also validated that VESA GROUP member's utilized loan as per the business plan. This was due to members' close relationships and frequent follow-up with borrowers. Reportedly, it was noted that VESA business plans were mostly oral presentation of ideas, except in REST operation areas where forms were prepared to be filled out by loan applicants to express their business plan.

On the other hand, according to KII with MFIs and RuSACCOs, conducted in almost all sample woredas, presenting written business plan was mandatory for loan applicants. This qualitative finding particularly contradicted with HH survey findings in CARE Ethiopia

operation areas, which finds zero requirements of business plan to request loan as reported by interviewed HHs. Causes of such disparities call for further investigation in the practice of loan disbursement.

Table 3.17: Proportion of Loans Used for the Purpose as Stated in the Business Plan/ specified VC engagement, percentage of HHs

Type of FS provider	*Proportion of loan use*				
	All	*Most*	*Half*	*Some*	*None*
VESA	66.2	19.8	2.5	3.3%	8.3
Cooperative union	66.7	6.7	3.3	3.3%	20.0
RuSACCO	89.5	10.5	-	-	-
MFI	65.5	21.9	8.7	3.9%	-

Source: GRAD IR Assessment 2015 survey

Similarly, paying loan debt on schedule and full repayment were positive indicators of IGA or VC engagement sustainability. In light of this, loan repayments by schedule and full repayment were assessed. As shown in Table 3.18, a significant majority of the HHs repaid their debt on schedule. A close look at the table below also indicated similar finding. Nearly all HHs living in the areas where REST operates paid their debts on schedule, while lower results were seen in CARE and ORDA operational areas. As for CARE, 26.1 % and 35.3 % of HHs reported that they do not repay the loan they took from VESA and MFI, respectively, on the schedule. Similarly, 33.3% of the HHs living in ORDA operational area also reported that they did not repay the loan they took from RuSACCO in a timely manner.

As for paying fully matured loans, the finding showed positive status of loan repayment. On average, 77% of VESA loans, 81.3% of cooperative union loans, 84.5% of RuSACCO loans and 67.3% of MFI loans were reportedly repaid in full (see table 3.18 below for details by IP).

Table 3.18: Percentage of HHs that paid on schedule and fully repaid Mature Loans[6]

Type of FS provider	**Implementing Partner**										**GRAD Average**	
	CARE		CRS/MCS		REST		ORDA		ASE			
	Paid on schedule	Fully paid mature loans	Paid on schedule	Fully paid mature loans	Paid on schedule	Fully paid mature loans	Paid on schedule	Fully paid mature loans	Paid on schedule	Fully paid mature loans	Paid on schedule	Fully paid mature loans
VESA	73.9	65.2	78.4	88.2	99.2	93.5	93.7	79.7	82.3	58.1	90.5	80.3
Cooperative union	-	-	100.0	50.0	100.0	100.0	93.8	75.0	100.0	100.0	96.7	83.3
RuSaCCo	100.0	100.0	-	-	93.3	86.7	66.7	66.7	-	-	89.5	84.2
MFI	64.7	88.2	79.7	73.9	100.0	76.9	91.5	57.4	70.0	40.0	89.4	70.3

Source: GRAD IR Assessment 2015 Survey

[6]Paying loan on schedule refers to whether HHs pay loans regularly as per schedule set during taking loan. Paying mature loans, on the other, hand refers to whether HHs have paid loans whose final payment day had reached.

N.B: These percentages are out of the HHs that report loan taking.

KII and FGD findings indicated that repayment of loan was highest among VESA groups due to previously stated factors of: close ties between members and robust follow-up of VESA leadership. However, few VESA leaders, especially in ORDA operation areas, noted that blood relations among members contribute to unfair loan prioritization among members and was also the major reason for non-repayment and.

Findings from KIIs with RuSACCO and MFI respondents in ORDA, CARE, CRS/MCS and ASE operational areas reported that late repayment and default in repayment was dominantly caused by beneficiaries conception of GRAD facilitated loans as aid money. Expressing the gravity of the problem, Meklit MFI (Meskan woreda branch manager, ASE operation areas) disclosed that 1,500,201 ETB has not been repaid through legal means in the past fiscal year. Similarly, Sidama MFI, Hawassa Zuria woreda branch manager indicated that 2.6 million birr loan from GRAD beneficiaries was not repaid. Older GRAD beneficiaries transferring loans to younger relatives who were not keen to repay and kebele officials providing fraudulent documentation and identity to individuals who were not GRAD beneficiaries were mentioned by the informant as other major problems encountered in loan provision in the woreda.

3.1.3: IR 1.3 - Extension Services Upgraded

With the aim of promoting household livelihoods, GRAD support to enhance access to extension services which include trainings and support to target groups directly through IPs and government structures. Accordingly, the study assessed whether the sample households included in this study have received extension services, who the provider of the service was, and the quality of the service.

Fig 3.4: Percentage of HHs that Received Technical Assistance and/or Extension Services for Their Value Chain Activities

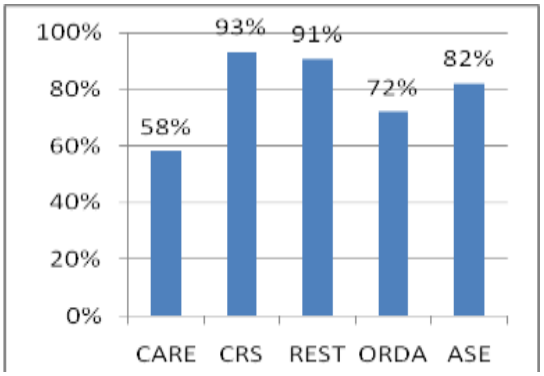
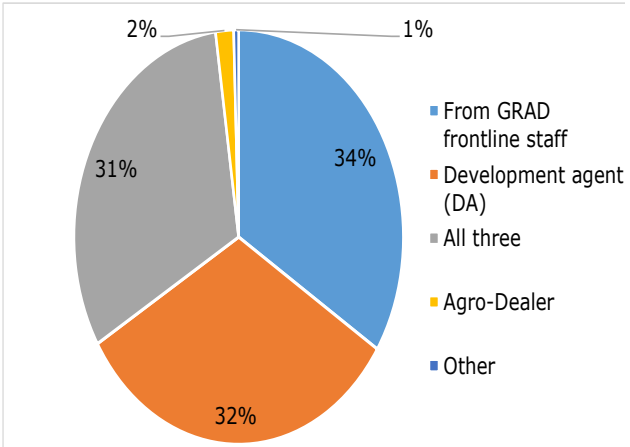


Fig 3.5: Source of extension services



Source: GRAD IR Assessment 2015 Survey

A majority of HHs (82%) have reported that they have received such extension services. However, there remains significant extension service provision requirement. For instance, though the majority of GRAD HHs living in CARE and ORDA operational areas have reported receiving extension services for their VC activities, a significant number

(42.3%) reported that they did not receive technical assistance that could have been vital in their agricultural activities, trainings that would inform HHs about best agricultural practices and disaster risk management among others (see Fig 3.4). As for the source of these services, it was found that GRADs frontline staff were the major source of the extension services as reported by the majority. Development agents were also frequently mentioned providers of technical assistance for the sampled HHs in the study (see Fig 3.5).

Respondents were also asked to rate the service they obtained as being low, moderate, or high quality. The majority (58%) perceived the extension service as high quality. The remaining 39.2% and 2.7% perceived the technical assistance as having moderate quality and poor quality, respectively. While the highest proportion of HHs who rated the service as high quality were found in REST operation area, the majority who rated the services they obtained as poor quality were found in CRS/MCS project area (Table 3.19).

Table 3.19: Perceived Quality of Extension Service, percentage of HHs

Extension service quality perception	*Implementing Partner*					*GRAD Average*
	CARE	*CRS/MCS*	*REST*	*ORDA*	*ASE*	
High quality	51.1	39.1	77.9	48.5	50.7	58.0
Moderate quality	46.7	54.1	21.3	49.3	46.6	39.2
Poor quality	2.2	6.8	0.9	2.2	2.7	2.7

Source: GRAD IR Assessment 2015 Survey

3.2. Result 2 - Improved Household and Community Resilience

Under Result 2, GRAD seeks to improve community and household resilience by reducing vulnerability to climate-related shocks and strengthening the capacity to cope with (absorb) and recover from economic (income and market related), food production and health related shocks. Accordingly, GRAD has engaged in interventions that further expand HH options to protect against and recover from the impacts of shocks without irreversibly depleting assets and reduce the associated financial and social capital impacts.

To this end, GRAD held its main objective: to contribute to increased resilience of beneficiary HHs, which will also reinforce the economic opportunities stated above, in Result 1. Thus, this section of the assessment presents the findings, whether such result are being realized. The specific intermediate result covered in this assessment included:

- IR 2.1 - Women resilience and access to inputs, services and information increased
- IR 2.2 - Nutritional status of infants, children and reproductive age women improved
- IR 2.3 - Climate change adaptation improved
- IR 2.4 -Promote aspiration for graduation among targeted PSNP Hs and enhances enablers' graduation

3.2.1: IR 2.1 - Women's Resilience and Access to Inputs, Services and Information Increased

Women are key part of every HH and hence empowering women is also building resilience of the household and community. In light of this, the study assessed gender equality and women's empowerment in terms of their decision-making in household affairs, access to inputs, access to market and information and the level of division of labor within a HH. In the sections below, analysis presented refers to both FHHs and MHHs, thus in some cases results that were favorable towards women's resilience were positively influenced by the inclusion of FHHs (where men would be much less likely to dominate decision-making).

The first assessment was their decision-making status in household affairs. Joint decision on household affairs has been observed in the majority of cases (an average 64.6% of cases). For some themes, women-only decision-making was more common than men-only. For instance, 31% of the women had sole decision-making on paying for HH necessities/utilities, while 24.9 % of women had the upper hand on deciding to spend money for personal expenses than men (see table 3.22). The majority of FGD discussions with women participants also indicated the same results, i.e. decision-making level of women on the HH issues were improving.

FGDs conducted with women elucidated that younger married women tended to have equal say on major household decisions, while older married women reported very slow-paced change in their household. Training on gender equality for men, improved access to finance and expansion of modern education has been noted by majority of participants as the major driving factors for the positive changes witnessed in women decision making abilities.

Table 3.20a: Manner of Decision Making over HH Issues, Percentage of HHs

Description of decision making	Only by men	Jointly by women and men	Only by women	Female children	Male children
Income utilization earned by the HH	8.4	68.3	22.8	0.0	0.3
Buying agricultural inputs	13.5	63.2	22.3	0.4	0.5
Paying for HH necessities/utilities	3.8	64.0	31.4	0.8	0.0
Spending money for personal expenses	4.7	69.1	24.9	0.9	0.1
Buying food items for the HH	2.5	58.3	38.3	0.7	0.1

Source: GRAD IR Assessment 2015 Survey

Further analysis was conducted order to find out if differences exist in terms of decision making-related variables between FHHs and MHHs. As can be seen from the table below, even in MHHs, women and men claim to make most decisions jointly.

Table 3.20b: Decision Making over HH Issues, Percentage of HHs, by Sex of Head of HH

Description		Only by men	Jointly by women and men	Only by women	Not applicable	Female children	Male children
FHH	Income utilization earned by the HH	2.3	20.3	76.5	.5	0.0	.5
	Buying agricultural inputs	5.1	17.1	74.7	.5	1.4	1.4
	Paying for HH necessities/utilities	2.3	14.3	82.0	0.0	1.4	0.0
	Spending money for personal expenses	1.8	18.4	77.4	.5	1.4	.5
	Buying food items for the HH	1.8	18.4	77.4	.5	1.4	.5
MHH	Income utilization earned by the HH	10.9	87.6	1.3	0.0	0.0	.2
	Buying agricultural inputs	16.8	81.7	1.3	0.0	0.0	.2
	Paying for HH necessities/utilities	4.4	83.9	11.1	0.0	.6	0.0
	Spending money for personal expenses	5.9	89.5	3.9	0.0	.7	0.0
	Buying food items for the HH	2.8	74.3	22.6	0.0	.4	0.0

Source: GRAD IR Assessment 2015 Survey

Secondly, women's access to different services has been studied. Access to inputs and different services with particular focus on FHHs was assessed. Accordingly, it was found that in the majority of cases women in FHHs had high access to agricultural inputs (91.1%), markets to sell products (90.2%) and information on markets (82.9%) and credit access (91.2%) (See table 3.21 below for details by IP). Concurrent to quantitative findings, FGDs conducted with women also established a positive and equitable access to inputs and credit.

Table 3.21: Female Headed HHs Access to Services, percentage of HHs

Description of access	*Implementing Partners*					*GRAD Average*
	CARE	*CRS/MCS*	*REST*	*ORDA*	*ASE*	
Production inputs (fertilizer, pesticides, seeds, etc.)	89.5	91.9	94.7	78.6	100.0	91.1
Market information	78.9	86.5	87.6	62.8	100.0	82.9
Market to sell products	84.2	91.9	95.9	76.2	95.0	90.2
Credit/finance	68.4	91.9	99.0	79.1	100.0	91.2

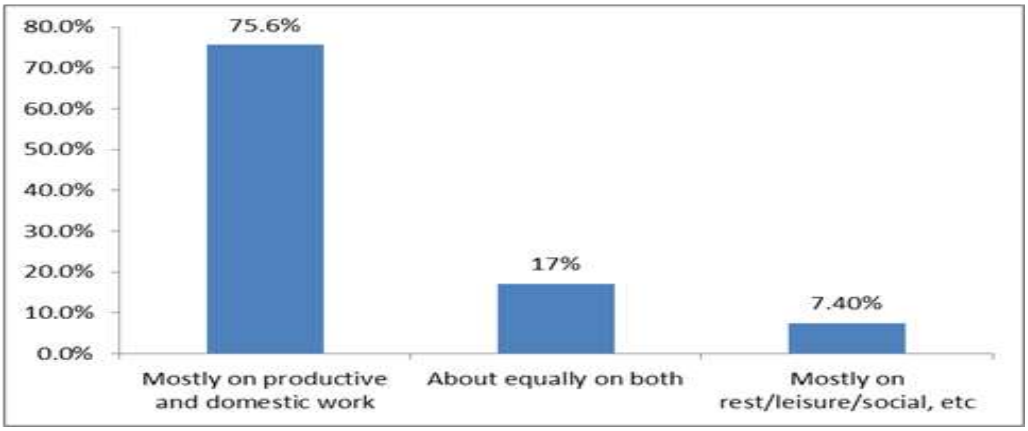
Source: GRAD IR Assessment 2015 Survey

Thirdly, the study looked at how women spend their time during the normal day[7]. It was found that the majority of the women spend their time during an average day on productive and domestic work as opposed to rest or leisure. About 75.6% of the women in the sampled HHs report that they spent all or most of their time on productive and domestic tasks (see Fig 3.6 below). Similarly, according to FGDs women participants, it

[7] Normal day refers an average day in a year that excludes holiday or any festivity day

was found that younger married women report a wider and more balanced division of labor between their spouses than older married women.

Fig 3.6: Percentage Distribution of Women by how they spend their time during a normal day



Source: GRAD IR Assessment 2015 Survey

3.2.2: IR 2.2 - Nutritional Status of Infants, Children and Reproductive Age Women Improved

Under Result 2, IR 2.2, GRAD seeks to improve the nutritional status of infants, young children and reproductive age women[8]. In view of this, status has been assessed. The below discussion was organized in such a way that it first presents nutritional status of infants, children and reproductive age women, and then, it reports the findings with some economic activities promoted by the project that intend to support HH nutrition, alongside some brief note on personal hygiene.

Before undertaking the analysis of nutritional behavior of infants, the analysis began by filtering out how many of the study households have reported children born in the last 24 months[9].Accordingly, it was found that 231 (30.5%) of the households have one child under 24 months, while only three households reported having a second child born in the last 24 months and thus these second child were left out of the statistical analysis on account of the paucity of cases. From the first set of children, 184 were 6-23 months old while the remaining 47 were 0-5 months. Thus, all analysis below is relevant to these households only. The relatively small number of cases also meant that analysis was done only at the GRAD level, as conducting analysis at the IP or woreda levels or multiple age groups would further fragment the data yield results with little statistical use.

Among many misconceptions about baby feeding, the most prevailing one was the misconception that members of the society have on colostrum – baby's first meal. However, such was not the case with the overwhelming majority of HHs involved in the study as they fed colostrum to their children which is an indication of proper health knowledge (Table 3.22). Mothers are expected to breastfeed, as it is essential for child

[8] For GRAD, this refers to appropriate behaviors and not anthropometric measures.
[9] During data collection, infant and children related questions were administered only for HHs that report children under age of 24 months.

health. The study assessed this practice by first asking if mothers in GRAD targeted HHs ever breastfed their children born in the last 24 months. The results show that nearly all of mothers have ever breastfed their children.

Table 3.22: Percentage of HHs who Fed their Child Colostrum and Ever Breast Fed their Children born in the Last 24 Months

Child	GRAD Average
Colostrum consumption	89.8
Ever Breastfed	99.6

Source: GRAD IR Assessment 2015 Survey

One of the indicators of the assessment was the proportion of children born in the last 24 months who were put to the breast within one hour of birth. Thus, mothers in the sample HHs were also asked to indicate the time they breastfed their child after birth. Table 3.23 shows that 77% of mothers breastfed their child immediately, whereas the remaining 19.6% of them breastfed their first child between 1 and 24 hour.

Table 3.23: Percentage Distribution of HHs by how soon they put their children born in the last 24 months to the breast

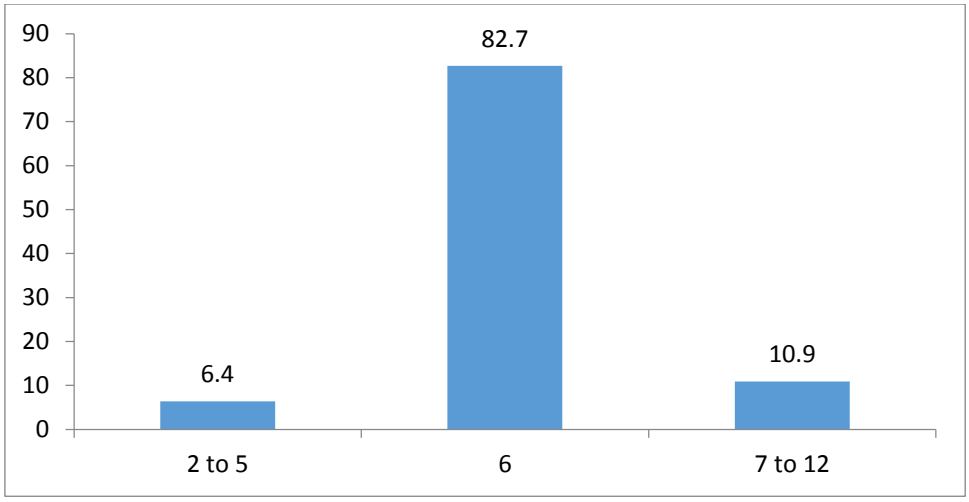
Child 1	Immediately (<1 hour)	Between 1 and 24 hour	24 hours or more
	77.0	19.6	3.5

Source: GRAD IR Assessment 2015 survey

Though exclusive breastfeeding is advisable at early stage of infancy, children should be introduced to complementary foods and drinks at later stage. For infants to start food or drinks other than breast milk, they should be at suitable age - around the age of 6 months old. In this connection, the study assessed the age of children in the targeted HHs when they started to take anything other than breast milk and the responses are summarized in Table 3.24 below. A significant majority (82.7%) of the first-born babies were introduced to complementary foods at the age of 6 months. More importantly, all of the second children in the targeted HHS started complementary foods at the age of 6 months. However, 10.9% of the first-born babies were not introduced to complementary foods at the age of 6 months.

Women FGD findings on practice of breastfeeding were also found to be in agreement with the quantitative findings, where all participants attested to feeding colostrum and practicing exclusive breastfeeding until 6th month. Exclusive breastfeeding is understood among participants as the practice of feeding infants breast milk only until they reach 6 month.

Fig 3.7: Age of Baby born in the last 24 months at which it was First Fed Anything Other Than Breast Milk, Child 1



Source: GRAD IR Assessment 2015 Survey

In addition, further assessment was made on infant feeding practices. Nearly all infants in GRAD target HHs were breastfed on the day previous to the study. In addition, 28.6% of children in HHs from ORDA operating areas were breastfed by other women or fed with milk from other women since the previous day of the study. The study also revealed that 42.9% children from ORDA operating areas were said to consume liquid other than ORS, syrups and vitamins.

Table 3.24: Child Feeding Practices (0-5 Months, Child 1)

Child feeding practice	**GRAD Average**
Breastfed child since yesterday	95.7
Breastfed by other woman or milk from other woman since yesterday	8.5
Consume any liquid except ORS, syrups and vitamins	12.8

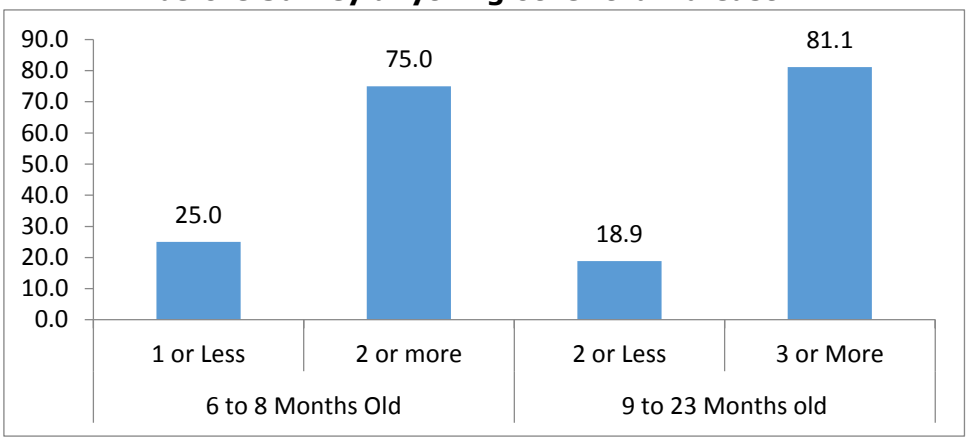
Source: GRAD IR Assessment 2015 Survey

Minimum Meal Frequency

Further assessment was also made on child feeding practice of the HHs, by looking at the number of times children, 6-23 months, were fed something other than breast milk, since the previous day of the study to the time of the interview. According to WHO (2010, page 36-37) The minimum daily meal frequency is defined as twice for breastfed infants aged 6-8 months, three times for breastfed children aged 9-23 months and four times for non-breastfed children aged 6-23 months. However, since the survey didn't collect data on "breastfed since yesterday" for children aged 6-23 months, calculation is done here using the "ever breasted" data of that age group. As all except one of the children in that age group have been breastfed ever, analysis is done on the basis of the criteria for breastfed children.

According to Figure 3.7, about 75% the children 6-8 months and 81% of those 9-23 months old have achieved minimum meal frequency. Thus, on the average, 80% of children born in the last 24 months have achieved minimum meal frequency

Fig 3.8: No of times Children 6-8 and 9-23 Months Old Were Fed since Day before Survey anything other than breast milk



Source: GRAD IR Assessment 2015 Survey

Minimum Dietary Diversity

According to the Indicators for Assessing Infant and Young Child Feeding Practices Part 2: Measurement (WHO 2010), MDD is defined as the proportion of children 6–23 months of age who receive foods from 4 or more food groups. In order to calculate MDD, the recommendations in the aforementioned document were applied. The guideline (Page 35-36) recommended taking 13 food groups and collapsing them into 7 categories. Based on that recommendation, the 13 relevant food groups in the questionnaire used for this study are re-categorized into the 7 presented in the table below.

Table 3.25a: Summary of Food Groups for Children

Food Group	Question number(s)[10]
1. Grains, roots and tubers	1,3
2. Legumes and nuts	11
3. Dairy products (milk, yogurt, cheese)	12
4. Flesh foods (meat, fish, poultry and liver/organ meats)	7,8,10
5. Eggs	9
6. Vitamin-A rich fruits and vegetables	2,4,5,16
7. Other fruits and vegetables	6

Source: WHO 2010

Based on the re-categorized food groups, the results show that about 47% of infants have consumed at least four nutrient rich food items in on the day before the survey, thus achieving minimum dietary diversity.

Table 3.25b: Infant Minimum Dietary Diversity

Number of Food Items Consumed	Frequency	Percent

[10] The manual recommends that a specific food group will be recorded as consumed if the respondent reports consumption of any one of the sub-items in the category.

3 or Less	98	53.3
4 or More	86	46.7
Total	184	100.0

Source: GRAD IR Assessment 2015 survey

Minimum Acceptable Diet (MAD)

Minimum Acceptable Diet (MAD) is a composite indicator which is calculated as the proportion of breastfed children aged 6-23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day. The survey results showed that out of 184 children, 73 (39.7%) have earned positive scores on both measures and thus have achieved a minimum acceptable diet.

Women Dietary Diversity (WDD)

Equally important, women should be provided with varieties of nutritious foods, as it is essential for their health as well as their children. With regard to this, the survey documented women's dietary diversity. In order to calculate WDD, the recommendations in "Guidelines for Measuring Household and Individual Dietary Diversity" (Kennedy 2011) were used as the guiding principles. The guideline (Page 23-25) recommends taking 13 food groups out of the 16 in its questionnaires and collapsing them into 9 categories. As per that recommendations, the 13 relevant food groups in the questionnaire used for this study are re-categorized into the nine presented in the table below.

Table 3.26: Summary of food groups for women

No.	Food Group	Question number(s)
1.	Starchy staples	1, 2
2.	Dark green leafy vegetables	4
3.	Other vitamin A rich fruits and vegetables	3, 5,16
4.	Other fruits and vegetables	6
5.	Organ meat	7
6.	Meat and fish	8, 10
7.	Eggs	9
8.	Legumes, nuts and seeds	11
9.	Milk and milk products	12

Source: Kennedy 2011

There are no established cut-off points in terms of number of food groups to indicate adequate or inadequate dietary diversity for WDDS and thus to use mean score or distribution of scores for analytical purposes (Kennedy 2011). As 672 (88.6%) of the study households had women 15-49 years old living in the household, data was collected on the dietary habit of these women. The findings showed the mean number of food groups consumed to be 3.2 with a minimum of 0, maximum of 8 food groups and standard deviation of 1.5.

Qualitative findings from women FGDs, specifically on understanding and practice of dietary diversity and meal frequency, showed that all participants across all IPs understood dietary diversity as eating different varieties of food throughout the day. In addition, it was also found that majority of participants have acquired a hands-on

training on preparation of nutritious meals. However, in a majority of cases, the practice of dietary diversity indicated limited adoption due to restricted financial capacity.

The study also assessed the foliate/ iron supplement intake during pregnancy of women in GRAD-ENGINE target HHs. As Table 3.28 below shows, from 5.4% of pregnant women in the sampled HHs, 56.1 % of them have ever taken supplements. In addition, among the 27.3% of the women who were pregnant in the previous two years, the significant majority 82.1% of them took supplements during their pregnancy (Table 3.28).

Table 3.27: Supplement Intake of Pregnant Women

Description	*Percentage of HHs*
HHs with pregnant women currently	5.4
Currently pregnant woman who took foliate/iron supplement	56.1
HHs with pregnant woman in the last 24 months	27.3
Pregnant woman in the last 24 months who took foliate/iron supplement	82.1

Source: GRAD IR Assessment 2015 Survey

Nutrition Own Sourcing

Home gardening is an important and reliable source of household nutrition in rural areas. GRAD supports households to install home gardens and practice poultry production for facilitating access to nutritious foods at home and also to supplement HH income. Nonetheless, the finding limited practice of home gardening and poultry practice, as reported by the sample of HHs (see table 3.29 for details by IP).

Table 3.28: Home Gardening and Poultry Practice, percentage of HHs

Description	Implementing Partners					
	CARE	CRS/MCS	REST	ORDA	ASE	GRAD
Practice traditional home garden with GRAD support	53.8	25.9	28.6	40.4	50.6	36.2
Practice Perma garden or keyhole garden	6.5	1.4	17.1	11.7	3.4	10.0
New or expanded poultry practice with GRAD support	32.1	76.2	64.5	43.1	67.0	58.3
Improved poultry production	5.2	9.8	75.6	13.3	19.1	33.8

Source: GRAD IR Assessment 2015 Survey

Furthermore, those engaged in improved poultry production were asked the number of improved and local chicken varieties they owned. HHs reported ownership of mean number of 4.3 for improved and 4.8 for local varieties.

The survey also assessed for what purposes GRAD HHs use the product from their various activities. As presented in table 3.30 below, a significant majority of HHs used their products both for income generation as well as HH consumption.

Table 3.29: Purpose of Production, Percentage of HHs

	Purpose of Production

	Income generating	HH consumption	Both
Traditional Garden	3.3	28.5	68.2
Perma-garden produce	1.4	21.6	77.0
Traditional poultry	10.7	6.6	82.8
Improved poultry	16.1	2.4	81.6

Source: GRAD IR Assessment 2015 Survey

As a project objective, GRADs targeted HHs are expected to start or expand poultry production and to improve that production as they are furnished with technical assistance. According to the survey results, on the average, nearly 60 % of the HHs either started or expanded poultry production with GRAD support. Use of improved technologies for poultry production by IP is reported in table 3.31 below.

Table 3.30: Use of Inputs for Poultry Practice, percentage of HHs[11]

Description	Implementing Partner					GRAD Average
	CARE	CRS/MCS	REST	ORDA	ASE	
Have separate chicken home	75.0	50.0	99.5	92.0	35.3	91.4
Use of improved poultry feed	25.0	50.0	96.9	56.0	41.2	85.5
Access to chicken vaccination	75.0	64.3	73.3	76.0	41.2	71.0
Access to expert follow-up and support	75.0	50.0	62.6	72.0	47.1	62.0

Source: GRAD IR Assessment 2015 Survey

OFSP Consumption, Training, and Planting

Orange fleshed sweet potato (OFSP) is a significant source of vitamin A and is being promoted by GRAD in collaboration with the International Potato Center. To this end, the study assessed its use as well as training received, and cultivation among GRAD HHs. In general, 20% of GRAD HHs have never consumed it at home, while 16% have received education/training on OFSP production and utilization. Those who planted it in their backyard garden were about 8.4%. The table below presents data on the three variables by IP and for all GRAD HHs.

Table 3.31: OFSP Consumption, Training, and Planting, Percentage of HHs

Description	Implementing partner					GRAD Average
	CARE	CRS/MCS	REST	ORDA	ASE	
Ever used OFSP for HH consumption	10.3	9.8	37.1	12.7	14.6	20.4
Got education/training on OFSP production and utilization	9.0	9.8	23.9	13.2	16.9	16.2
Planted OFSP at backyard garden	7.7	2.1	10.4	13.2	3.4	8.4

Source: GRAD IR Assessment 2015 Survey

Hand Washing

[11]The use of inputs for poultry practice is in reference to those reporting new or expanded poultry practice

GRAD promotes better hygiene practices to its VESA groups. The study therefore assessed hand-washing practice of sample HHs. The assessment attempted to document timing and some form of soap use of the respondents[12]. As for the use of some form of soap, it was found that mostly 53.4% use just water to wash followed by 44% reported use of water and soap to wash. Regarding frequency of hand washing, almost all respondents stated that they do so before eating, while a significant majority reported washing after eating. Table 3.33 presents the findings on the timing at which respondents wash their hands. It should be noted that no prompting was given to respondents. It is likely that reported frequencies are artificially low for less common events, e.g. cleaning a toilet. These data are more reflective of recall then behavioral change.

Table 3.32: Timing at which respondents wash their hands, percentage of respondents

Timing of Hand wash	*Percentage of respondents wash hand*
Before eating	98.9
After eating	83.8
Before preparing food	74.9
After using toilet	62.4
When dirt is visible	42.9
Before feeding child	41.2
After cleaning a toilet	32.8
After cleaning a child who has defecated	30.7
When I am reminded to do so	30.6
Not at all	0.9

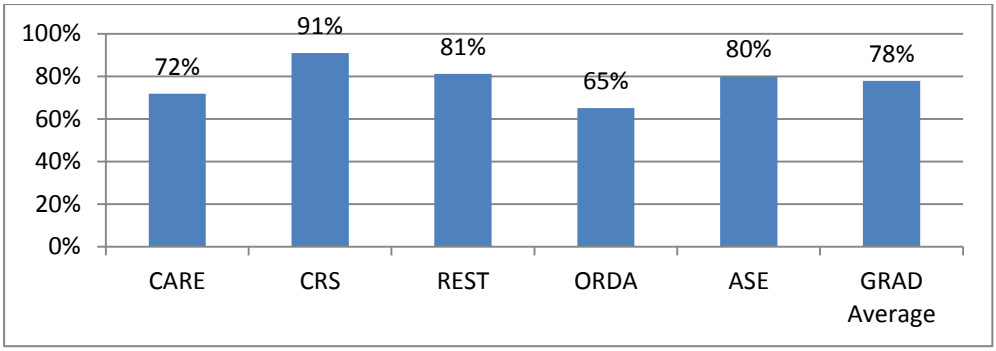
Source: Source: GRAD IR Assessment 2015 survey

3.2.3: IR 2.3 - Climate change adaptation (CCA) improved

Climate change is a major source of vulnerability to rural livelihoods. With the aim of improving community resilience capacities, GRAD carries out activities to raise awareness and to improve climate adaptation capacity of the communities and households. Accordingly, the study assessed awareness levels and climate change adaptation and/or coping strategies being used by GRAD communities and HHs. With regard to awareness levels, the assessment found that a significant number of the respondents (77.8%) perceived that climate change is occurring (see Fig 3.8 below for details by IP).

Fig 3.9: Percentage of HH that report awareness of climate change

[12]As it was difficult to get information at HH level for this kind of questions, the study team reverted to ask the case for the respondent only.



Source: GRAD IR Assessment 2015 Survey

Those respondents, who perceived the occurrence of climate change in their localities, were also further asked to indicate the manner in which they perceived the climate is changing. As reported in Table 3.34 below, the majority of respondents outlined change in rainfall amount, variability in rainfall, increase in temperature, or the combination of these as climate change manifestations.

Table 3.33: Manner in which Climate Change Occurred in Respondent's Localities

Description	*Percentage of HHs*
Change in rainfall amount	12.0
Variability in rainfall	7.8
Increase in temperature	5.9
Increase in the occurrence of animal and plant diseases	1.0
Increase in the occurrence of floods	0.2
Change in rainfall amount and variability	41.0
Change in rainfall amount and variability and increase in temperature	28.8
Combinations of four or more	3.2
Total	100.0

Source: GRAD IR Assessment 2015 survey

Consequently, HHs have adopted different strategies to adapt to climate change. The assessment identified the strategies being adopted by the sample HHs. The study found that practicing watershed improvement (74.8% of cases), using short season or drought resistant crop varieties (65.6% of cases), and starting savings or increase saving rates (67.2% of cases) were reported as the adaptation mechanism practiced most by GRAD HHs (see Table 3.35).

Table 3.34: CCA Measures Used by HHs

Description	*Implementing Partners*					*GRAD Average*
	CARE	*CRS/MCS*	*REST*	*ORDA*	*ASE*	
Use short season or drought resistant crop varieties	52.6	67.1	83.8	67.7	55.1	70.1
Subscribe weather index	-	-	12.3	11.1	-	11.8[13]

[13] Analyzed only for ORDA and REST operational areas where weather index insurance is promoted.

insurance						
Start using supplemental irrigation	9.0	9.1	42.1	44.4	9.0	29.2
Adopt use of fuel efficient stove	6.4	25.2	42.9	37.0	21.3	31.8
Practice watershed improvement	66.7	74.8	80.7	72.0	79.8	75.9
Start savings or increase saving rates	46.2	72.7	94.2	45.5	77.5	71.1
Use improved feed technologies	21.8	24.5	56.8	54.5	31.5	43.5

Source: GRAD IR Assessment 2015 Survey

Regarding the number of CCA mechanisms adopted by GRAD HHs, it was found that about 6% did not adopt any measures, while 7.8% adopted one such measure. Those who adopted two or more measures add up to 86.3%. As GRAD encourages its beneficiaries to adopt various CCA strategies, the assessment also attempted to get information in this regard. Accordingly, it was found that the contribution of GRAD in adapting various CCA mechanisms was significant. In this regard, out of those HHs who reported that they practiced saving as climate adaptation strategy, 88.5 % of HHs reported that they started savings or increased saving rates as adaptation mechanism as a result of the project. Likewise, out of those reported using fuel-efficient stove, 85.9 % reported to use such mechanism as the result of the GRAD project (see table 3.36 below for detailed climate adaptation strategies adopted as result of GRAD).

Qualitative findings also support results from the household survey. FGDs conducted with men indicated that the community was experiencing adverse climate changes, perceived through shortage and variability of rain, increase in temperature, sudden flooding and disease on livestock. The most dominant adaptation measures noted included saving in VESA and other financial institutions, use of irrigation, selected seeds and improved technics, borrowing money to purchase food, buying insurance, engaging in non-farm related activities such as trading and relying on PSNP support.

Table 3.35: Climate Change Adaptation Measures Used by HHs as a Result of GRAD

Description	Percentage of HHs
Use short season or drought resistant crop varieties	74.4
Subscribe weather index insurance	
Start using supplemental irrigation	94.3
Adopt use of fuel efficient stove	85.9
Practice watershed improvements	70.4
Start savings or increase saving rates	88.5
Use improved feed technologies	73.0

Source: GRAD IR Assessment 2015 Survey

N.B. These percentages are out of those exposed to or trained in the specific adaptation strategy

3.2.4: IR 2.4 –Promote Aspiration for Graduation among Targeted PSNP HHs and Enhance Ability to Graduate

GRAD promotes graduation of beneficiaries by building their capacity through achieved development. In line with this core objective of GRAD, the assessment studies sample HHs PSNP status and the associated aspiration to graduate. Accordingly, the study indicated that out of the sample households on average 57.4% were current beneficiaries of PSNP and 42.6 % reported that they currently are not in PSNP (see table 3.37 for details by IP). These 42.6% (who were not currently in PSNP) were further analyzed on their status. Consequently, it was found that 60.1% of the current Non-PSNP reported that they graduated from PSNP after joining GRAD (see table 3.38 for details by IP).

Table 3.36: Percentage Distribution of HHs which are currently in PSNP

Report on Current PSNP beneficiary status	Implementing Partner					GRAD Average
	CARE	CRS/MCS	REST	ORDA	ASE	
	66.7	93.0	45.2	43.4	57.3	57.4

Source: GRAD IR Assessment 2015 survey

Table 3.37: Time of Graduation from PSNP, percentage of HHs

Description	*Implementing Partners*					*GRAD Average*
	CARE	*CRS/MCS*	*REST*	*ORDA*	*ASE*	
Before joining GRAD	34.6	30.0	15.5	61.7	15.8	32.8
After joining GRAD	53.8	60.0	76.8	36.4	73.7	60.7
Never been in PSNP	11.5	10.0	7.7	1.9	10.5	6.5

Source: GRAD IR Assessment 2015 Survey

N.B. These percentages are out of those who report that they are not current PSNP beneficiaries. Only about 2.8% of all GRAD beneficiaries have never been in PSNP.

Aspirating to graduate is an important step for graduation. In this regard, the study attempted to assess sample HHs aspirations to graduate in a specified time frame. Accordingly, Table3.39 below provides percentage of HH aspiration to graduate from food support in a given time period. The study finds that about 36% of HHs aspire to graduate within the next five year, while 25.2% do not aspire to graduate. (This study was conducted in the midst of a season of poor rains and crop failures, which likely affected results.)

Reportedly, FGD discussions have also noted mixed levels of aspirations. Those who openly expressed that they do not want to graduate from the PSNP noted that recurrent shocks on assets and deteriorating living condition, as a major factor for wanting to stay in the program. Whereas, those who showed a positive aspiration to graduate attributed their optimism to continuance of GRAD support, especially on availability of credit, and use of irrigation to sufficiently feed their families and increase income. In general, qualitative findings on aspiration to graduate tilts toward luck of genuine aspiration among those participated in FGDs and a sense of continuance on receiving PSNP support despite improvement in livelihoods.

Table 3.38: Time at which HHs Aspire to Graduate from PSNP, percentage of HHs

Aspired time of graduation	*Implementing Partners*					*GRAD Average*
	CARE	*CRS/MCS*	*REST*	*ORDA*	*ASE*	
In less than a year	11.5	13.5	36.8	12.2	5.9	18.4
In the next two years	17.3	15.0	25.6	13.4	27.5	19.3
In the next 3 to 5 years	15.4	18.8	17.1	35.4	25.5	21.8
Never	17.3	17.3	7.7	20.7	9.8	14.5
Don't know	38.5	35.3	12.8	18.3	31.4	26.0

Source: GRAD IR Assessment 2015 Survey

N.B: This percentage of HHs aspiration to graduate applied only to those currently in PSNP

Annexes

Appendix A – Refined indicators of assessment
Refined Indicators Based on Supplementary Indicators and 2014 IR Assessment Report
(Final Indicators)
Result 1: Enhanced livelihood options of chronically food insecure Households

Intermediate Results	Refined indicators
On- and off-farm economic opportunities, inclusive value chains and market access for targeted HHs stimulated	***Incomes*** 1. % of HHs who have adopted at least one new IGA since the start of GRAD 2. % of HHs engaged in the following major IGAs a. Petty trade (including of grain) b. Vegetable production and sales c. Poultry production and sales d. Other livestock (not VC) e. Retail (including salons, restaurants, beverage, micro-franchise) f. Donkey/horse cart g. Trade (carpentry, etc) or handicrafts h. Other 3. % of HHs that are engaged in at least one value chain (including by VC type and whether financing come from MFI, RuSACCO, Union, VESA, or self) 4. Average net income from new / strengthened IGAs per year by IGA type 5. Average profits from new / strengthened value chain engagement per year by value chain 6. Average total annual income from new VCs and IGAs 7. % of HHs that have completed more than one round/ cycle of their new / strengthened value chain since they joined GRAD 8. Value of incremental sales of crop, vegetables and animal products calculated as follows: ➢ Total value of product sales this year minus total value of product sales on year before enrollment in project (as recalled by respondent) 9. Gross margin per production unit of selected product (crops, vegetables and animal products) calculated as follows: ➢ Total value of product sales minus total value of purchase input costs divided by production unit. ***Access to Market*** 1. % of HHs who are members of a FEMA 2. % of HHs selling their produce though FEMAs, cooperatives or other aggregators 3. % of HHs that have sold products via the same aggregation point more than once

	4. % of HHs who believe the price they are paid for their products when selling though aggregators is fair / reflects the market value ***Access to agricultural inputs*** 1. Type and value of agricultural inputs used per HH per IGA/VC 2. Sources of inputs (in location and ownership type) 3. Perceived affordability of inputs 4. Perceived quality of inputs
An inclusive financial sector promoted and access to a range of financial products and services expanded	***Financial services*** 1. % of HHs currently saving money in a VESA; % of HHs currently saving money in a formal financial institution 2. Average savings per HH, by VESA, RuSACCO, MFI, Other, and Total, last year 3. Average current savings per HH, by VESA, RuSACCO, MFI, Other, and Total 4. % of HHs that created a business plan with which to seek a loan 5. % of HHs that have received at least one loan from VESA for IGA 6. % of HHs that have received at least one loan from an MFI, RuSACCO or Union 7. % of HHs that have received more than one loan from an MFI, RuSACCO or Union 8. % of HHs repaying a loan from an MFI, RuSACCO, Union on schedule 9. % of HHs that have received and fully repaid a loan from an MFI, RuSACCO, Union (for mature loans only) 10. Proportion of loans that were used for the purpose as stated in the business plan, i.e. the selected value chain
Extension services upgraded	***Access to agricultural services*** 1. % of HH that received technical assistance and/or extension services for their value chain activities. 2. Source of extension services received by HH 3. Perception on the quality of the services

Result Two: Improved Household and Community Resilience

	Refined Indicators
IR 2.1: Women's resilience and access to inputs, services and information increased	1. The percentage of women who make decisions over the utilization of the income they earn 2. The percentage of women who make sole or joint decisions over large household expenditures a. Buying agricultural inputs, b. paying household necessities/utilities, c. Spending money for personal expenses. d. Buying food items for hh consumption e. Other 3. The percentage of women accessing agricultural inputs (seeds and fertilizer)

	4. % of women accessing services (market information, formal finance, technical support); 5. The percentage of women accessing output market to sell agricultural products 6. The percentage of women reporting increased equity in division of labor within the HH a. The percentage of women reporting increased equitable distribution of time between productive and domestic tasks and satisfaction with available time for rest, social, and/or leisure activities. b. The percentage of women reporting more equitable distribution of household chores with their husbands.
IR 2.2: Nutritional status of infants, children and reproductive age women improved	1. % of HHs practicing Exclusive Breast Feeding (EBF) for children under 6 months 2. The proportion of children born in the last 24 months who were ever breastfed. 3. The proportion of children born in the last 24 months who were put to the breast within one hour of birth. 4. % of HHs with Women dietary diversity (WDD) 5. % of HHs providing Minimum Dietary Diversity for children (6-23months) 6. % of HHs providing Minimum Meal Frequency for children 7. % of HHs practicing Minimum Acceptable Diet (MAD) 8. % of HHs with both new/expanded traditional home gardens 9. % of HHs with both new/expanded traditional poultry productions for nutrition & income 10. % of HHs with improved home gardens/applying some technology[i] promoted by GRAD 11. % of HHs with improved poultry production applying some technology promoted by GRAD 12. Proportion of households with proper hand washing practices 13. Proportion of women aged 15 to 49 years that took foliate / iron supplements during their last 24 month pregnancy or current pregnancy
IR 2.3: Climate change adaptation improved	1. % of target beneficiaries who perceive the impact of climate change induce hazards • *Perception of change in rainfall amount and variability over time* • *Perception of increase in temperature over time* • *Perception of increase in the occurrence of animal and plant diseases over time* • *Perception of increase in the occurrence of floods* 2. % of HHs who have started to take any of the following measures as climate change adaptation a. To use short-season or drought resistant crops or varieties.

	b. Diversify into less risky livelihoods activities. c. Subscribe to weather index insurance d. Start using supplemental irrigation e. Adopt use of fuel efficient stoves f. Watershed improvements (e.g. planting trees and forage crops; erosion control structures, etc.) g. Start savings or increase savings rates. h. Use of improved feed technologies (planting forage plants, fast growing grasses etc)
IR 2.4: Promote aspirations for graduation among targeted PSNP HHs and enhance enablers of graduation	1. Total % of GRAD HHs no longer in PSNP 2. % of HHs that graduated from the PSNP during the past year 3. Percentage of HH who aspire to graduate in a specified time frame such as < 1 year; 1-2 years; 3-5 years)

Appendix B: List of Selected Kebeles, by IP and region

Region	Implementing Partner	Selected Kebele
Tigray	REST	Akojira Gerjele Limat Tsbet Dum S/BIKALSI FALA Aulaga Horda
Amhara	ORDA	2 14 20 replaced with 04 22 replaced with 10 Genaza Asta Mariam Estifanos
Oromia	CRS/MCS	AjjeDida MudiArjo ChituGetu ElelanAbabo Ganale
SNNP	CARE	FokaBedelicha LebuKoremu Tulo
	ASE	Beresa ShersheraMechimena UdasaGola

Appendix C: Qualitative data collection checklist

Male FGD

1. Have households in your community begun to adopt IGAs as a result of GRAD?
    a. Probe for common types of IGA
2. How profitable are these IGAs? Why?
3. Have households in your community begun to engage in VC activities as a result of GRAD?
    a. Probe for common type and source of financing
4. How profitable are these VCs? Why?
5. Do households in your community sell their produce through?
    a. Probe for frequency of sale, fairness of price
6. Are households in your community members of VESA, RuSACCO, or MFI?
    a. Probe for predominant membership, saving habit, and reasons for these
7. Do people in your community take loans from these institutions?
    a. Probe for reasons, utilization, return
8. Has the status of women improved in your community since GRAD? In what manner.
9. Do you think there is climate change in your community? In what manner? What are you doing to adapt to it?
10. Do you think PSNP households aspire to graduate? What measures do you see them taking to achieve this aspiration.

Female FGD

7. What proportion of women in your community has property income they consider they own?
8. In general, how are decisions over major household affairs reached in your community?
9. How well do you rate women's access to agricultural inputs in your community?
    a. Probe for challenges or enabling factors.
10. How well do you rate women's access to services inputs in your community?
    a. Probe for challenges or enabling factors.
11. How well do you rate women's access to output market in your community?
    a. Probe for challenges or enabling factors.
12. What does the division of labor in the household look like?
    a. Has it changed since GRAD? In what direction?
13. Please tell us breastfeeding practices in your community?
    a. Probe for early breastfeeding as well as exclusive breast feeding.
14. What do you understand by dietary diversity?
    a. For women
    b. For children
15. How do people in your community practice dietary diversity
    a. For women,
    b. For children
    c. Probe for challenges or enabling factors.
16. How do you understand minimum meal frequency? How do people in your community practice it?

KII – Financial Institutions (VESA, RuSACCO, or MFI**)**

1. General information on institution
    a. Membership, source of finance, capital, loan, etc

2. What is the trend in membership in your institution since GRAD?
3. Tell us about saving practices.
    a. Probe for regularity, amount, male or female, etc
4. Tell us about peoples/members loan taking practices
    a. Major reasons/sectors/VCs
    b. Preparation of business plan
    c. Utilization as per business plan
5. What is the rate of repayment of loans?
6. What are the major challenges and opportunities to providing financial services
7. Any success stories

Appendix D: Household Questionnaire

Module 1 - Household Identification

101: Region	102: Zone	103: Woreda	104: Kebele	105: IP Code	106: HH No.	107: GPS UNIT (UTM reading)				108: Enumer	109: Super
						WP	ELEV	Easting	Northing		
									,		

110: Name of Household Head	111: Name of Respondent			112: Serial Number of Respondent		113: Date of survey *dd/mm/year*		
	111 b: Sex of respondent		111c: Relation to HH Head					

114: Implementing Partner				
1. CARE	2. CRS/MCS	3. REST	4. ORDA	5. ASE

INFORMED CONSENT SIGNATURE PAGE (Please leave a copy with the respondent)

Thank you for the opportunity to speak with you. We are from Green Professional Services and CARE Ethiopia. We are conducting a survey to learn about implementation of GRAD project on food security, food consumption, nutrition and wellbeing of households in this area. Your household has been selected to participate in an interview that includes questions on topics such as your family background, household economic activities, household food consumption and nutrition of children and women. The survey includes questions about the household generally, and questions about individuals within your household, if applicable. These questions in total will take approximately 30 min and your participation is entirely voluntary. If you agree to participate, you can choose to stop at any time or to skip any questions you do not want to answer. Your answers will be completely confidential. We will not share information that identifies you with anyone.

Do you have any questions about the survey or what I have said? If in the future you have any questions regarding the survey and the interview, or concerns or complaints we welcome you to contact Green Professional Services and/or CARE Ethiopia. We will leave one copy of this form for you so that you will have record of this interview and about the study.

Name	Consent to participate in survey (Check one box)		Signature or mark of HH	Name of Enumerator	Date
	YES	NO			

Interview status to be completed by Supervisors

Interview Status	**Check for Relevant**

Interview status comments:

1	Completed	
2	HH present, no adult respondent available	
3	HH absent	
4	Postponed	
5	Refused	
6	Dwelling vacant	
7	Dwelling destroyed	
8	Dwelling not found	
9	Other	

	The quality of this completed questionnaire is:
☐	Poor
☐	Average
☐	Excellent
	Did you back check this survey? 1. Yes 2. No

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

Survey Supervisor Name (please print): _____

Survey Supervisor Signature: _____

Date of Verification: _____

Module 2 – Household Demographics

201	202	203	204	205	206	207	208	200

	Household Member Name **(HH head and Spouse only)**	Age in completed years	Sex 1=Male 2=Female	Relation to household head **Enter codes from list**	Read or write 1= Yes 2 = No	Max education completed **Enter from list**	Marital status **Enter from list**	Main Occupation **Enter from list**	Number of HH members
01									
02									
03									
04									
05									
06									
07									

Household Identification Code sheet

	Region		**Implementing Partner**	**Education**		**Main Occupation**	
01	Tigray	01	CARE	01	Never Attended	01	Labour on own farm (unpaid)
02	Amhara	02	CRS/MCS	02	1st Grade	02	Labour on other farms (paid)
03	Oromia	03	REST	03	2nd Grade	03	Livestock rearing (unpaid)
04	SNNPR	04	ORDA	04	3rd Grade	04	Livestock rearing (paid)
		05	ASE	05	4th Grade	05	Casual off-farm labour (paid)
				06	5th Grade	06	Household/domestic/housewife (unpaid)
				07	6th Grade	07	Childcare/domestic work (paid)
				08	7th Grade	08	Rope making
				09	8th Grade	09	Civil service/official

				10	9th Grade	10	School teacher
	Relationship Type			11	10th Grade	11	Trading/business
01	Head			12	11th Grade	12	Chief/village elder
02	Spouse			13	12th Grade	13	Unable to work due to illness
03	Son/daughter of head and spouse			14	Incomplete high school education	14	Retired/elderly
04	Son /daughter of head			15	Completed high school education	15	Child/student
05	Son/daughter of spouse			16	Incomplete university education	16	Other, please specify
06	Mother/father of head/ spouse			17	Completed university education		
07	Sister/brother of head/spouse			18	Adult literacy program participation		**Marital Status**
08	Foster child			19	Other literacy program	01	Single
09	God child			20	Some Church/Mosque School	02	Married
10	Grand child					03	Divorced
11	Other relatives					04	Widow
12	Non-relatives						

Module 3 - Economic Opportunities, Value Chains and Market Access

Income

NEW IGA ENGAGEMENT

code	IGA	301: Has your household adopted any of the following IGAs since the start of GRAD (enumerator: choose all mentioned and then prompt by reading from list) Yes = 1 No=2	302: Net annual income in Birr during the last 12 months from this new IGA *(Not Applicable = 99)*
3a1	Petty trade (including of grain)		
3a2	Backyard vegetable production and sales		
3a3	Poultry production and sales		

3a4	Other livestock (not VC)		
3a5	Retail (including salons, restaurants, beverage, micro-franchise)		
3a6	Donkey/horse cart		
3a7	Trade (carpentry, etc) or handicrafts		
3a8	Other		

VC ENGAGEMENT

code	**VC**	303: Has your HH engaged in production of any of the following VC products since the start of GRAD? (enumerator: choose all mentioned and prompt by reading from list) Yes=1, No=2, if no skip to next section	304: Has your household engaged in selling any of the following VC products since the start of GRAD Yes = 1, No=2	305: What was the source of finance for the VC engagement? MFI = 1, Union = 2, RuSACCO = 3, VESA= 4, Self=5, other, please specify = 6, *Not Applicable = 99*
3b1	Cattle fattening			
3b2	Shoat Fattening			
3b3	Cereal-Malt barley			
3b4	Honey			
3b5	Pulse- Faba beans			
3b6	Pulse-White pea beans			
3b7	Pulse-Red Bean			
3b8	Vegetable-Red pepper			
3b9	Vegetable-Onion			
3b10	Vegetable-Tomato			
3b11	Vegetable-Potato			

INCOME FROM VC ENGAGEMENT

code	VC	306: Number of production Unit (Animals, hectares of land, beehives)	307: Total amount of product **consumed at Home**during the last 12months	308: Total amount product **sales** in during the last 12 months	309: Total value of product **sales** in birr during the last 12 months	310: Total value of purchased input costs in related to the specific VC product, during the last 12 months	311: Has your HH completed more than one round/ cycle of a new / strengthened value chain since joining GRAD? 1= Yes; 2= No.
3b1	Cattle fattening						
3b2	Shoat Fattening						
3b3	Cereal-Malt barley						
3b4	Honey						
3b5	Pulse- Faba beans						
3b6	Pulse-White pea beans						
3b7	Pulse-Red Bean						
3b8	Vegetable-red pepper						
3b9	Vegetable-Onion						
3b10	Vegetable-Tomato						
3b11	Vegetable-Potato						

Module 4 – Access to Market, Agricultural Inputs, Financial Services and Extension Services

ACCESS TO MARKET

401	Are you a member of a farmers' economic and marketing association (FEMA)?	1= Yes; 2= No
402	Are you a member of any farmers cooperative?	1= Yes; 2= No

403	Does your household sell its produce through FEMAs?	1= Yes; 2= No
404	Does your household sell its produce through farmers' cooperatives?	1= Yes; 2= No
405	Does your household sell its produce through other aggregators?	1= Yes; 2= No
406	How many times have you sold your produce through FEMAs?	_____
407	How many times have you sold your produce through farmers' cooperatives?	_____
408	How many times have you sold your produce through other aggregators?	_____
409	Do you believe that the price you got for your produce when you sold it through FEMAs was fair?	1= Always; 2= Most of the times; 3= Rarely; 4=Never
410	Do you believe that the price you got for your produce when you sold it through farmers' cooperatives was fair?	1= Always; 2= Most of the times; 3= Rarely; 4=Never
411	Do you believe that the price you got for your produce when you sold it through other aggregators was fair?	1= Always; 2= Most of the times; 3= Rarely; 4=Never
412	Have you obtained market information before taking your product to market since your involvement in GRAD?	1= Yes; 2=No, If no, skip to next section
413	From whom do obtain market information?	1=Development Agent; 2= NGO; 3= Mass media; 4= Model farmers, 5 = Others

ACCESS TO AGRICULTURAL INPUTS

code	**VC**	414: Has your household used Effective micro-organism for specific VC?	415: Has your household used Electrical chopper machine for specific VC?	416: Has your household used Manual chopper for specific VC?	417: Has your household used Concentrate and industrial by product feed utilization for specific VC?	418: Has your household used Silage making for specific VC?	419: Has your household used UMB for specific VC?	420: Has your household used Urea treatment for specific VC?	421: From where do you obtain these agricultural inputs?	422: How do you perceive the affordability of these inputs?	423: How do you perceive the quality of these inputs?
									Question 421 to 423 shall be administered for all VCs		
3b1	Cattle fattening	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Cooperative; 2= Agri. Bureau; 3=GRAD agro-dealer; 4= Other	1= Very affordable; 2= Moderately affordable;	1= High quality; 2= Moderate quality;
3b2	Shoat Fattening										

									private sector; 5= Model farmer 4= Other	3= Slightly affordable; 4= Not affordable	3= Poor quality
		424: Has your household used Improved seed variety for specific VC?	425: Has your household used Chemical fertilizer for specific VC?	426: Has your household used organic fertilizer for specific VC?	427: Has your household used herbicides/ pesticides for specific VC?						
3b3	Cereal-Malt Barley	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable				1= Cooperative; 2= Agri. Bureau; 3=GRAD agro-dealer; 4= Other private sector; 5= Model farmer 4= Other	1= Very affordable; 2= Moderately affordable; 3= Slightly affordable; 4= Not affordable	1= High quality; 2= Moderate quality; 3= Poor quality
Access to Agricultural Inputs (Continued)											
code		428: Has your household used Colony multiplication for specific VC?	429: Has your household used low cost transitional hives made of local materials for specific VC?	430: Has your household used modern bee hives for specific VC?					417: From where do you obtain these agricultural inputs?	418: How do you perceive the affordability of these inputs?	419: How do you perceive the quality of these inputs?
3b4	Honey	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable					1= Cooperative; 2= Agri. Bureau; 3=GRAD agro-dealer; 4= Other private sector; 5= Model farmer 4= Other	1= Very affordable; 2= Moderately affordable; 3= Slightly affordable; 4= Not affordable	1= High quality; 2= Moderate quality; 3= Poor quality
		431: Has your household used improved seeds for specific VC?	432: Has your household used pesticides/herbicides for specific VC?	433: Has your household used Super grain bags for specific VC?							
3b5	Pulse-Fababeans	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable					1= Cooperative; 2= Agri. Bureau; 3=GRAD agro-dealer; 4= Other	1= Very affordable; 2= Moderately affordable;	1= High quality; 2= Moderate quality;
3b6	Pulse-White pea										

	beans								private sector; 5= Model farmer 4= Other	3= Slightly affordable; 4= Not affordable	3= Poor quality
3b7	Pulse-Red Bean										

Access to Agricultural Inputs (Continued)

code		434: Has your household used improved seed varieties for specific VC?	435: Has your household used organic fertilizer VC?	436: Has your household used Mold board plough for specific VC?					417: From where do you obtain these agricultural inputs?	418: How do you perceive the affordability of these inputs?	419: How do you perceive the quality of these inputs?
3b8	Vegetable-Red Pepper	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable					1= Cooperative; 2= Agri. Bureau; 3=GRAD agro-dealer; 4= Other private sector; 5= Model farmer 4= Other	1= Very affordable; 2= Moderately affordable; 3= Slightly affordable; 4= Not affordable	1= High quality; 2= Moderate quality; 3= Poor quality
		437: Has your household used Improved varieties for specific VC?	438: Has your household used Rope and washer pump for specific VC?	439: Has your household used Improved practices (row planting, irrigation, etc.) for specific VC?	440: Has your household used chemical fertilizer for specific VC?						
3b9	Vegetable-Onion	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable				1= Cooperative; 2= Agri. Bureau; 3=GRAD agro-dealer; 4= Other private sector; 5= Model farmer 4= Other	1= Very affordable; 2= Moderately affordable; 3= Slightly affordable; 4= Not affordable	1= High quality; 2= Moderate quality; 3= Poor quality
3b10	Vegetable-Tomato										
		441: Has your household used improved varieties for specific VC?	442: Has your household used DLS (diffused light storage) for specific VC?	443: Has your household used improved practices (row planting, irrigation, etc.) for					1= Cooperative; 2= Agri. Bureau; 3=GRAD agro-dealer; 4= Other private sector; 5=	1= Very affordable; 2= Moderately affordable; 3= Slightly affordable;	1= High quality; 2= Moderate quality; 3= Poor quality

				specific VC?					Model farmer	4= Not affordable	
3b11	Vegetable-Potato	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable	1= Yes; 2= No; 99=Not applicable					4= Other		

ACCESS TO FINANCIAL SERVICES

	Institution	444: Membership Yes = 1 No = 2	445: Amount of total saving last year?	446: Amount of current balance:	447: Business plan prepared to take loan? Yes = 1 No = 2	448: Taken loan since joining GRAD? Yes = 1 No = 2 If No, skip to next section	449: Number of times loan taken. (Number) **(If loan not taken, put 99)**	450: Total amount of loans taken so far. (Amount in Birr)	451: When taken loan, what % of the loan has been used as per business plan? **1 = The entire amount 2= Most of it 3= 50/50 4= Less of it 5= None of it**	452: Is borrower repaying loan on schedule? Yes = 1 No = 2	453: Has borrower managed to pay in full all matured loans? Yes = 1 No = 2
4a1	VESA										
4a2	Cooperative Union										
4a3	RuSaCCo										
4a4	MFI										
4a5	Bank										

AGRICULTURAL SERVICES

454	Has your household received technical assistance and/or extension services for its value chain activities in the last year?	1= Yes; 2=No, If no, skip to module 5
455	Who was the source of the extension services provider?	1= Development Agent (DA); 2= Model Farmer; 3= Agro-Dealer; 4= from GRAD frontline staff; 5= 1&2; 6=1&3; 7= 1&4; 8= all; 9=other

456	How often does the extension provider visit you?	1= Once in two weeks; 2= once in a month; 3= Once in a two months; 4= once in a quarter
457	Did you receive any training on value chain you are participating?	1= Yes; 2= No
458	Do you attend field days and group discussions conducted on model farmers plot during the year?	1= Yes; 2= No
459	How do you perceive the quality of the extension service?	1= High quality; 2= Moderate quality; 3= Poor quality;

Module 5 - Women's Resilience (Administer module 5 and 6 to the knowledgeable respondent in the HH, Male or Female)

501	In your household, who decided over the utilization of the income the HH earned?	**1= M:** (Only by men); **2= MW**: (Jointly by women and men) ; **3= W:** (Only by women) ; **4= NA:** (Not applicable); **5= FC:** (Female children); **6= MC:** (Male children)
502	Who decides over buying agricultural inputs?	**1= M:** (Only by men); **2= MW**: (Jointly by women and men) ; **3= W:** (Only by women) ; **4= NA:** (Not applicable); **5= FC:** (Female children); **6= MC:** (Male children)
503	Who decides over paying household necessities/utilities?	**1= M:** (Only by men); **2= MW**: (Jointly by women and men) ; **3= W:** (Only by women) ; **4= NA:** (Not applicable); **5= FC:** (Female children); **6= MC:** (Male children)
504	Who decides over spending money for personal expenses?	**1= M:** (Only by men); **2= MW**: (Jointly by women and men) ; **3= W:** (Only by women) ; **4= NA:** (Not applicable); **5= FC:** (Female children); **6= MC:** (Male children)
505	Who decides over buying food items for household?	**1= M:** (Only by men); **2= MW**: (Jointly by women and men) ; **3= W:** (Only by women) ; **4= NA:** (Not applicable); **5= FC:** (Female children); **6= MC:** (Male children)
506	What proportion of your time during an average day would you say you spend for productive and domestic tasks as opposed to for rest, social, and/or leisure activities?	1= All; 2= Most; 3= About the same; 4= less times; 5= None
507	Do you have access to different production inputs? (like fertilizer, pesticide, improved seeds, and other agricultural technical support)	1= Yes, 2=No, 99=not applicable
508	Do you have access to Market information?	1= Yes, 2=No, 99=not applicable

509	Do you have access to Market to sell you products?	1= Yes, 2=No, 99=not applicable
510	Do you have access to credit/finance?	1= Yes, 2=No, 99=not applicable

Module 6- Nutrition and WASH

EARLY INITIATION OF BREAST FEEDING

Note: *The next set of questions should be asked of the mother with regard to all her children aged 0– 24 months old*
Child Registration Form
Ask if child under age of 24 months live in the household and complete below registration

		Name of Child	*Age of Child in months*
6c1	*Child one*		
6c2	*Child Two*		
6c3	*Child Three*		

If there are children under age of 24 months, ask below question for each child

		6c1: Child one	**6c2 : Child Two**	**6c3: Child Three**
601	Did you feed this child with **colostrum?**	**1** = Yes 2= No 99= DK	**1** = Yes 2= No 99= DK	**1** = Yes 2= No 99= DK
602	Have you ever breastfed [NAME OF CHILD]?	1= YES 2= No ---------→**Q605**	1= YES 2= No ---------→Q**605**	1= YES 2= No ---------→Q605
603	If the answer to Q602 is **YES**, how long after birth did you first put [NAME OF CHILD] to the breast?	1= Immediately (<1 hour) 2= |__|__| hours (greater than	1= Immediately (<1 hour) 2= |__|__| hours (greater than	1= Immediately (<1 hour) 2= |__|__| hours (greater than

		one hour and less than 24 Hs) 3= |__|__| days (24+ hours)	one hour and less than 24 Hs) 3= |__|__| days (24+ hours)	one hour and less than 24 Hs) 3= |__|__| days (24+ hours)
604	Has [NAME OF CHILD] ever taken anything other than breast milk?	1= YES 2= No **-------If yes, skip to 606**	1= YES 2= No **---------→Q606**	1= YES 2= No ---------→Q606
606	If **YES**, at what age (months) did you first give [NAME OF CHILD] **food OR drink (even water)** other than breast milk?	|__|__| months	|__|__| months	|__|__| months

EXCLUSIVE BREAST FEEDING (EBF)

Note: Consider Infants 0–5 months[14] of age and inform the mother that you would like to ask about breastfeeding and others since this time yesterday

(If answer to Q602 above is Yes, for children of under 6month, fill in below questions)

		6c1: Child one	6c2 : Child Two
607	Was the child breastfed since this time yesterday?	**1** = Yes 2= No 99= DK	**1** = Yes 2= No 99= DK
608	Did the child consume breast milk in any of these ways (breastfed by other woman or milk from other woman given by spoon or bottle) since this time yesterday?	**1** = Yes 2= No 99= DK	**1** = Yes 2= No 99= DK
609	Did the childconsume any of the liquids (except ORS, drops, syrups-vitamins, minerals and medicines) since this time yesterday?	**1** = Yes 2= No 99= DK	**1** = Yes 2= No 99= DK

[14] 5 months means 5 completed months and 29 days

MEAL FREQUENCY

Note: *Consider children 6–23 months of age and inform the mother that you would like to ask about what the child has received since this time yesterday*

		6c1: Child one	6c2 : Child Two	6c3: Child Three
610	Since this time yesterday, how many times was [NAME OF CHILD] fed mashed or pureed food or solid or semi-solid food? ***Note:*** *doesn't include drink!*	|__|__| times	|__|__| times	|__|__| times

CHILDREN DIETARY DIVERSITY

611: Have Child (name) in your household born aged 6-24 months eaten any of the following foods yesterday from waking up in the morning to going to sleep at night?

		6c1: Child one	6c2 : Child Two	6c3: Child Three
6a1	Injera, Porridge, bread, rice, noodles, or other foods made from grains	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a2	Pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a3	White potatoes, white yams, manioc, cassava, or any other foods made from roots	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a4	Any dark green leafy vegetables	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a5	Ripe mangoes, ripe papayas or (Insert other local vitamin A-rich fruits)	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a6	Any other fruits or vegetables	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a7	Liver, kidney, heart or other organ meats	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a8	Any meat, such as beef, lamb, goat, chicken, or duck	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a9	Eggs	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a10	Fresh or dried fish	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a11	Any foods made from beans, peas, lentils, nuts, or seeds	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a12	Cheese, yogurt, or other milk products	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a13	Any oil, fats, or butter, or foods made with any of these	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a14	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable

6a15	Condiments for flavor, such as chilies, spices, herbs or fish powder	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable
6a16	Foods made with red palm oil, red palm nut, or red palm nut pulp sauce	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable	1= Yes, 2=No, 99=not applicable

6.3 WOMEN DIETARY DIVERSITY

612: Have women in your household eaten any of the following foods on the day before (the closest non-fasting day before) the interview day from waking up in the morning to going to sleep at night?

6a1	Porridge, bread, rice, noodles, or other foods made from grains	1= Yes, 2=No, 99=not applicable
6a2	Pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside	1= Yes, 2=No, 99=not applicable
6a3	White potatoes, white yams, manioc, cassava, or any other foods made from roots	1= Yes, 2=No, 99=not applicable
6a4	Any dark green leafy vegetables	1= Yes, 2=No, 99=not applicable
6a5	Ripe mangoes, ripe papayas or (Insert other local vitamin A-rich fruits)	1= Yes, 2=No, 99=not applicable
6a6	Any other fruits or vegetables	1= Yes, 2=No, 99=not applicable
6a7	Liver, kidney, heart or other organ meats	1= Yes, 2=No, 99=not applicable
6a8	Any meat, such as beef, lamb, goat, chicken, or duck	1= Yes, 2=No, 99=not applicable
6a9	Eggs	1= Yes, 2=No, 99=not applicable
6a10	Fresh or dried fish, shellfish, or seafood	1= Yes, 2=No, 99=not applicable
6a11	Any foods made from beans, peas, lentils, nuts, or seeds	1= Yes, 2=No, 99=not applicable
6a12	Cheese, yogurt, or other milk products	1= Yes, 2=No, 99=not applicable
6a13	Any oil, fats, or butter, or foods made with any of these	1= Yes, 2=No, 99=not applicable

6a14	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits	1= Yes, 2=No, 99=not applicable
6a15	Condiments for flavor, such as chilies, spices, herbs or fish powder	1= Yes, 2=No, 99=not applicable
6a16	Foods made with red palm oil, red palm nut, or red palm nut pulp sauce	1= Yes, 2=No, 99=not applicable

PREGNANT WOMEN IRON SUPPLEMENT INTAKE

613	Is there a pregnant woman in the household now?	1= Yes, 2=No; If No, skip to 615
614	If yes, has she taken foliate / iron supplements?	1= Yes, 2=No, 99=not applicable
615	Was there a pregnant woman in the household in the 24 months?	1= Yes, 2=No, If No, skip to next section
616	If yes, did she take foliate / iron supplements?	1= Yes, 2=No, 99=not applicable

HOME GARDEN PRACTICES

617	Do you practice traditional home gardens (raised bed or simply on flat ground at backyards), new or expanded to grow vegetables due to support of GRAD?	1= Yes, 2=No, 99=not applicable; If No, skip to 620
618	For what purpose do you use the produce?	1= Income generating; 2 = HH consumption; 3= Both
619	What kind of input support did you obtained?	1= Garden demonstration training; 2 = Seed support; 3 = both; 4 = No support received
620	Do you practice perma-gardens or keyhole gardens (special raised beds with efforts made to make the soil fertile and conserve water) new or expanded to grow vegetables due to support of GRAD?	1= Yes, 2=No, 99=not applicable; If No, skip to 623
621	For what purpose do you use the produce?	1= Income generating; 2 = HH consumption; 3= Both
622	What kind of input support did you obtained?	1= perma/key hole-garden demonstration training; 2 = Seed support; 3 = both; 4 = No support received

POULTRY

623	Do you practice traditional poultry (new or expanded) due to support/promotion of GRAD?	1= Yes, 2=No, 99=not applicable; If No, skip to 626

624	For what purpose do you use the produce?	1= Income generating; 2 = HH consumption; 3= Both
625	What kind of input support did you obtained?	1= Training; 2 = Support to purchase chickens (through loan access from VESA or MFI); 3 = both; 4 = No support received
626	Do you practice Improved poultry production	1= Yes, 2=No, 99=not applicable; If no, skip to next section
627	For what purpose do you use the produce?	1= Income generating; 2 = HH consumption; 3= Both
628	What kind of input support did you obtained?	1= Training on modern poultry production management; 2 = Support to purchase improved/local chicken through loan access from VESA or MFI; 3 = both; 4 = No support received
629	Do you have separate chicken home	1= Yes, 2=No, 99=not applicable
630	How many chickens are improved varieties	1= Yes, 2=No, 99=not applicable
631	How many chickens are local varieties	1= Yes, 2=No, 99=not applicable
632	Do you use of improved poultry feed	1= Yes, 2=No, 99=not applicable
633	Did you get chicken vaccination	1= Yes, 2=No, 99=not applicable
634	Do you get expert follow up and support	1= Yes, 2=No, 99=not applicable

HAND WASHING PRACTICES

635. Can you name key times for hand washing? (Do not read the answer. One or more answer is possible)

		1 = Yes, No = 2
6b1	Before eating	
6b2	After using toilet	
6b3	Before preparing food	
6b4	Before feeding child	
6b5	After eating	
6b6	After cleaning a child who has defecated	
6b7	After cleaning a toilet?	
6b8	When dirt is visible	
6b9	When I am reminded to do so	
6b10	Not at all	

636. What do you wash your hands with?(Do not read the answer).

1= Water only
2= Ash
3= Soil
4= Plant Leaf
5= soap

637. Have you ever used OFSP for household consumption?	1= Yes, 2=No
638. Did you get any education/training on OFSP production and utilization?	1= Yes, 2=No
639. Have you planted OFSP at your back yard garden?	1= Yes, 2=No

Module 7 - Climate Change Adaptation

701	Do you think that climate change is occurring in your locality?	1= Yes, 2= No; if no, skip to next…
702	If yes, in what manner has it occurred in your locality? [Enumerator: let the respondent list and then check].	1= Change in rainfall amount; 2 = Variability in rainfall; 3= Increase in temperature; 4= increase in the occurrence of animal and plant diseases; 5=increase in the occurrence of floods; 6 = 1&2; 7=1,2&3; 8= All

		703: Which of the following Climate Change Adaptation do you currently practice?	704: Did you adapt this as a result of GRAD
7a1	Use short-season or drought resistant crops or varieties.	1= Yes, 2= No	1= Yes, 2= No
7a2	Diversify into less risky livelihoods activities.	1= Yes, 2= No	1= Yes, 2= No
7a3	Subscribe to weather index insurance	1= Yes, 2= No	1= Yes, 2= No
7a4	Start using supplemental irrigation	1= Yes, 2= No	1= Yes, 2= No

7a5	Adopt use of fuel efficient stoves	1= Yes, 2= No	1= Yes, 2= No
7a6	Watershed improvements (e.g. planting trees and forage crops; erosion control structures,)	1= Yes, 2= No	1= Yes, 2= No
7a7	Start savings or increase savings rates.	1= Yes, 2= No	1= Yes, 2= No
7a8	Use improved feed technologies (planting forage plants, fast growing grasses etc)	1= Yes, 2= No	1= Yes, 2= No

Module 8 - Aspiration to Graduate

801	Are you currently a PSNP HH?	1= Yes, 2=No If yes, skip to 803,
802	If no, when did you graduate from PSNP	1 = Before joining GRAD, 2 = After joining GRAD , 3= Never been in PSNP
803	When do you aspire to Graduate from PSNP support?	1= In less than a year; 2= In the next two years; 3= In the next 3 to 5 years; 4= Never, 5= Don't know