Baseline Study of the *Ifaa* Resilience Food Security Activity in Ethiopia

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The Implementer-Led Evaluation & Learning (IMPEL) Associate Award works to improve the design and implementation of Bureau for Humanitarian Assistance-(BHA)-funded resilience food security activities (RFSAs) through implementer-led evaluations and knowledge sharing. Funded by the United States Agency for International Development (USAID) BHA, IMPEL will gather information and knowledge in order to measure performance of RFSAs, strengthen accountability, and improve guidance and policy. This information will help the food security community of practice and USAID to design projects and modify existing projects to bolster performance, efficiency, and effectiveness. IMPEL is a seven-year activity (2019—2026) implemented by Save the Children (lead), TANGO International, Tulane University, Causal Design, Innovations for Poverty Action, and International Food Policy Research Institute (IFPRI).

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ACRONYMS

ANC	Antenatal Care
BHA	Bureau for Humanitarian Assistance
CAHW	Community Animal Health Workers
CCFLS	Community-Based Complementary Feeding and Learning Sessions
CGM	Care Group Model
CLTSH	Community Led Total Sanitation and Hygiene
CMAM	Community-based management of Acute Malnutrition
CRS	Catholic Relief Services
CTCF	Community Technical Coordinating Forum
DFSA1	Development Food Security Activity 1
DS	Direct Support
ENA/EHA	Essential Nutrition and Hygiene Actions
ESMF	Environment and Social Management Framework
FCS	Food Consumption Score
FDP	Food Distribution Points
FF	Follower Farmer
FIES	Food Insecurity Experience Scale
FMNR	Farmer Managed Natural Regeneration
FSTF	Food security task force
GBV	Gender-Based Violence
GoE	Government of Ethiopia
HEP	Health Extension Programme
HEW	Health Extension Workers
HH	Household Head
IE	Impact Evaluation
IGA	Income Generation Activities
IMPEL	Implementer-Led Evaluation and Learning Associate Award
IMNCI	Integrated Management of Newborn & Childhood Illnesses
IWM+	Integrated Watershed Management+
IWRM	Integrated Water Resources Management
IYCF	Infant and young child feeding
LEW	Livelihood Extension Workers
LF	Lead Farmer
LH	Lead Herders
MAD	Minimum Acceptable Diet

MDD	Minimum Dietary Diversity
MFI	Micro-Finance Institution
NGO	Non-Governmental Organization
NRM	Natural Resource Management
ODF	Open Defecation Free
ORT	Oral Rehydration Therapy
PAP	Pre-Analysis Plan
PDP	Primary Distribution Points
PDS	Permanent Direct Support
PIM	Program Implementation Manual
PLW	Pregnant and Lactating Women
PSNP	Productive Safety Net Programme
PSNP5	Productive Safety Net Programme Phase 5
PSP	Private Service Providers
PW	Public Work
RCT	Randomized Controlled Trial
RFSA	Resilience Food Security Activity
RL	Religious Leader
RuSACCO	Rural Savings and Credit Cooperatives
SBC	Social and Behavioral Change
SILC	Savings and Internal Lending Communities
SPIR	Strengthen PSNP Institutions and Resilience
TDS	Temporary Direct Support
USAID	United States Agency for International Development
USD	United States Dollar
WASH	Water, Sanitation, and Hygiene
WASHCO	WASH Community Organization
WFSTF / KFSTF	Woreda / Kebele Food Security Task Forces
YES	Youth Employability Skills
YPA	Youth Peace Ambassadors

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ANNEX A: PRE-ANALYSIS PLAN

1. DESCRIPTION OF STUDY

Causal Design is part of the Implementer-Led Evaluation and Learning (IMPEL) Associate Award consortium, the Bureau for Humanitarian Assistance's (BHA) primary mechanism for carrying out the evaluations of the resilience food security activities (RFSA) in Ethiopia. Causal Design's support for this project will include a survey and evaluation design of the *Ifaa* RFSA implemented by Catholic Relief Services (CRS). Throughout the implementation period, Causal Design will conduct an Impact Evaluation study using an experimental evaluation (randomized control trial (RCT)) approach comprised of:

- Evaluability Assessment that will lay out the research design and approach to inform the Pre-Analysis Plan.
- A Pre-Analysis Plan that will outline the sampling strategy, survey design, outcomes for the analysis, estimation strategy, and additional methods (as appropriate).
- A Baseline Report that will summarize and analyze baseline (BL) survey data.
- An Impact Evaluation Report that will use the BL and endline (EL) data to estimate the impact of the RFSA.
- A Cost-Effectiveness Analysis (CEA) at EL, tied to the impact evaluation data.

In addition to these activities, Causal Design will also perform a process monitoring evaluation, which is meant to assess the implementation process itself. This evaluation is not part of the experimental evaluation and will not be discussed in this Pre-Analysis plan (PAP). A separate PAP plan for the process monitoring will be delivered at the end of the year.

This PAP outlines the experimental approach for evaluating the effectiveness of the *Ifaa* RFSA program. It outlines the overall evaluation design and approach, data collection and management protocols, and analysis methods for each evaluation component.

1.1. Impact Evaluation Overview

Causal Design will conduct an Impact Evaluation (IE) using BL and EL survey data in the target areas of the *Ifaa* RFSA in Oromia, Ethiopia. A BL survey for the RFSA will be carried out in the second quarter of 2022, and a corresponding EL survey will be conducted in the second quarter of 2025. Additionally, a cost-effectiveness analysis, designed below, will be carried out in conjunction with the EL report.

Overview of BL Study: The BL study will rely on quantitative methods to measure BHA standard indicators collected in the RFSA experimental evaluation area in 2022. The survey will provide BL data on the status of communities and households that are part of the experimental evaluation.[1] Causal Design will work closely with BHA and relevant stakeholders to identify other key learning objectives and ensure that the BL survey and study are able to contribute to this learning where possible.

[1] The results should not be extrapolated and interpreted as representative of subgroups that are not a part of the research. For example, the results shouldn't be extrapolated to a whole kebele, because the study is only looking at PSNP households with women/girl of reproductive age in the kebeles part of the study.

Overview of EL Study: The EL study will collect survey data from the same communities and households in the BL survey to estimate the ability of the RFSA intervention to directly impact household food security and well-being indicators as listed in BHA's standard indicators. The EL study will be carried out in 2025 during the same months as the BL survey (second quarter) and will allow suitable time for any potential benefits to occur. The same, or slightly modified, survey will be administered to the same households as in the BL activity to ensure comparability across the two time periods.

Overview of Cost-Effectiveness Analysis: The CEA will focus on the cost-effectiveness of the entire RFSA implementation over the course of its entire implementation. It will not examine the relative cost-effectiveness of different packages or the PSNP Basic package of interventions since CRS does not track their expenses by intervention. This CEA will rely on performance monitoring indicators, rather than impact data, for measures of effectiveness. The results of the CEAs will be presented in the EL report.

2. EVALUATION APPROACH

2.1. Research Objective

The *Ifaa* RFSA activities and services are a package of interventions aimed at improving food security of vulnerable households in targeted Productive Safety Net Programme (PSNP) communities, contributing to a sustained reduction in rural poverty. *Ifaa* will provide one of two packages of interventions—Basic PSNP and *Ifaa* Enhanced—to 241 kebeles in the Region of Oromia. We will refer to these two packages of interventions as the evaluation packages. The Basic PSNP package is a set of interventions selected and implemented by the Government of Ethiopia to support its most vulnerable populations. The *Ifaa* Enhanced package implements those "basic" interventions plus additional interventions. The primary objective of the impact evaluation will be to measure the impact of the *Ifaa* Enhanced package for PSNP5 participants on food security and related outcomes in the targeted communities and determine possible attribution to changes in key indicators. The evaluation seeks to inform the larger knowledge base around the efficacy of the RFSA among vulnerable populations and how benefits to vulnerable households can be further maximized.

2.1.1. Research Question

***Research Question**: What is the impact of the Ifaa Enhanced package of interventions for PSNP5 households compared to the PSNP Basic package on reducing food insecurity, nutrition, and other related outcomes?*

2.2. Evaluation Design

The evaluation team will implement a **cluster RCT**, designed to estimate the impact of the *Ifaa* Enhanced package of interventions. The evaluation will use a randomized controlled trial cluster design (cluster RCT) which randomizes the selection of kebeles that receive the *Ifaa* Enhanced package and the kebeles that receive the PSNP basic package in the Oromia region of Ethiopia. The group of kebeles receiving the *Ifaa* Enhanced package will be referred to as the treatment group, while the set of kebeles receiving the PSNP Basic package will be referred to as the control group. The two evaluation packages were proposed by the implementing partner (IP). The proposed research question allows us to evaluate the

impact of the *Ifaa* Enhanced package compared to PSNP Basic. This is an important research result, since CRS considers those interventions to be the ones leading to significant improvements for the PSNP clients.

BL and EL data will be collected, and statistical analysis will be used to estimate the direct impact of receiving the *Ifaa* Enhanced package compared to the PSNP Basic package, using BHA food security and nutrition indicators[2,3] and other focal indicators such as Resilience and Poverty. The RCT design will maximize the ability of the research to measure direct and attributional impacts and will employ statistical tools and methodologies for estimating impacts. The CEA, combined with the impact evaluation findings, will allow the research team to explore a value-for-money dimension that assesses program effectiveness.

The following sections outline the specific interventions, identification, randomization, and sampling strategies for the impact evaluation as well as the CEA methods and strategy.

2.2.1. *Ifaa* Interventions

Per the goals and objectives of reducing food insecurity and promoting well-being and welfare among participant kebeles, the *Ifaa* RFSA aims to provide a range of support interventions to more than 60,000 households. These interventions are aimed at strengthening and improving government services, agriculture and livelihood opportunities, health and nutrition, WASH, gender and youth empowerment, and natural resource management and environment.

Table 1 shows a subset of the interventions and how they are mapped to the two evaluation packages mentioned before—Basic PSNP and *Ifaa* Enhanced.[4] The *Ifaa* Enhanced package is the most comprehensive package and contains all the interventions in the PSNP Basic package, plus additional interventions under each domain. Each kebele that is part of the evaluation study will receive the interventions associated with only one of the two evaluation packages.

The interventions under Livelihoods are special in the sense that only a subset of the kebeles are eligible[5] to receive those interventions. To be able to account for this, the IE study will include two groups of kebeles: (i) those eligible to receive livelihood interventions, and (ii) those that are not eligible. Within each group, kebeles will be randomly assigned to control or treatment (resulting in four groups of kebeles). Livelihood kebeles assigned to the control group will receive all the Basic PSNP interventions (including the livelihood ones), while livelihood kebeles in the treatment group will receive the *Ifaa* Enhanced package. In the case of the group of kebeles not eligible to receive livelihood interventions, control kebeles will receive the Basic PSNP interventions but without livelihood interventions, while the treatment kebeles will receive all the *Ifaa* Enhanced package but without livelihood interventions.

[2] https://www.usaid.gov/food-assistance/partner-with-us/implementation-and-reporting
[3] We use a set of 5 indicators to power the study. In section 2.3we present the selected indicators and discuss the reasons for that selection.
[4] Table 8 in section 5.6 contains the list of all interventions.
[5] CRS used different criteria to select the eligible kebeles, like proximity to market.

Table 1. List of interventions across the two evaluation packages[6]

Interventions	Basic PSNP	*Ifaa* Enhanced
Livelihoods		
Saving Group	*X*	*X*
Financial Literacy Training	*X*	*X*
Support and training in business plan development	*X*	*X*
Credit guarantee fund (conditional capacity building)		*X*
Value chain financing co-investment		*X*
Youth fund ($250)		*X*
Gender Youth and Social Dynamics		
Implementation of PIM Gender provisions: Monitoring implementation of PIM gender provisions (e.g., exemption of Pregnant and Lactating Women (PLW) until the child is 2 years, FHHs without able-bodied labor in their house (i.e. have young children only provide her share of the household labor; Women will work 50% fewer hours on public works than men; Women will be assigned to light works. Construction of day care centers)	X	X
Monitoring implementation of gender-based violence (GBV) action plan included in the PSNP 5 (e.g., The program Grievance Redress Mechanism (GRM) supporting to accept appeals related to GBV and refer to locally available GBV response services	X	X
Leadership training for women and youth in leadership position		X
Community Conversations for adults and youth		X
PSNP Systems		
Provision of three food components (wheat, oil, and pulse) to Permanent Direct Support (PDS) and PW clients—to meet the daily food kilo/calorie requirement.	X	X
Woreda / Kebele Food Security Task Forces (WFSTF/KFSTF) Capacity Building (woreda, kebele, community level)	X	X
FSTF Capacity Building, specifically focusing on Leadership & Communication Essential training, in addition to the basic FSTF capacity building		X
Private sector engagement: transportation of food from PDP to FDP, construction of SEIs (same as PSNP basic)		X
Health and Nutrition		

[6] The complete list of interventions can be found in section 5.6

Interventions	Basic PSNP	*Ifaa* Enhanced
Linkage to services (Ensuring transfers for Temporary Direct Support (TDS), supporting TDS PW clients to attend PW SBC sessions, and other Health and Nutrition services like ANC (antenatal care), growth monitoring, immunizations, etc.)	X	X
Capacity building training for government and partner staffs- Adolescent nutrition, Community based management of Acute Malnutrition (CMAM), RLs materials.	X	X
Government of Ethiopia (GoE) basic health extension program	X	X
Additional health extension programs (includes remote trainings, lead parents, motivation of health development armies)		X
System strengthening through the capacity building and provision of materials (referral pads, formats, reg. books, SC materials, etc.)		X
Environment and Natural Resource Management (NRM)		
Training Woreda GoE on equitable allocation and disbursement of resources for PSNP plan implementation	X	X
Watershed management planning	X	X
Implementation of the environment and social management framework (ESMF)	X	X
IWRM (water supply, risk management) and Water Benefits Calculator)		X
Farmer Managed Natural Regeneration (FMNR): land restoration technique—introducing FMNR approach, organizing user groups and leveraging with agro-forestry practices.		X
WASH		
Water development, monitoring, and governance	X	X
Community Led Total Sanitation and Hygiene (CLTSH)		X
Market Based Sanitation and Hygiene		X

2.2.2. Identification Strategy

The evaluation will compare the outcomes in treatment kebeles receiving *Ifaa* Enhanced interventions to those same outcomes in control kebeles who receive only Basic PSNP interventions.[7]

Kebeles will be randomly assigned to either the treatment or control group; because these two groups are randomly selected, on average, they have similar characteristics. Thus, the differences in outcomes

[7] Because of the differentiation between livelihood eligible and livelihood non-eligible kebeles, we are effectively making two comparisons. Comparison 1 is livelihood kebeles receiving PSNP Basic (including livelihood interventions) against livelihood kebeles receiving the *Ifaa* Enhanced package. Comparison 2 is non-livelihood kebeles receiving PSNP Basic (excluding livelihood interventions) against non-livelihood kebeles receiving the *Ifaa* Enhanced package without livelihood interventions.

can be attributed to the differences in interventions across the two groups. In the baseline study the research team will perform a series of statistical exercises to verify that the two groups are effectively similar. In addition to this, the statistical methodologies used to evaluate the research questions will allow us to account for the possibility of imbalance in some dimensions.

Kebeles are the administrative unit for many of the planned RFSA interventions. Given that not all interventions will reach all kebeles, and, not all kebeles will receive an Enhanced package, it was deemed ethical to randomly select the kebeles that would receive the Enhanced package. Moreover, it was deemed infeasible by the research and program teams to conduct randomization at the household or individual level as spillover effects to neighboring households would be large. In addition, ethical considerations arising from excluding neighboring households from interventions within a kebele were too large.

2.2.3. Randomization Strategy

The research team will work with CRS to randomize the rollout of the *Ifaa* Enhanced and PSNP Basic interventions at the kebele level. Based on power level calculations (see section2.3), kebele-level randomization would be adequately powered to detect impacts on most outcomes of interest.

Selection criteria of kebeles: *Ifaa* will work in 9 Woredas, made up of 241 kebeles. Out of these, 34 kebeles were excluded from the study due to being perpetually insecure and other reasons specified by CRS. In addition to this, 11 kebeles were purposefully selected to receive Integrated Watershed Management+ (IWM+)[8] and won't be included in the IE study. Out of the remaining 197 kebeles, 120 kebeles were randomly selected to be part of the IE study. Half of them are livelihood eligible kebeles and the other half are not eligible livelihood kebeles. The kebeles that are part of the IE study will be randomly allocated to one of the two groups; 50 will receive the Basic PSNP package and the remaining 70 will receive the *Ifaa* Enhanced package of interventions.[9]

The evaluation team will use a stratified randomization approach to guarantee a better balance. This technique involves dividing the sample of kebeles into groups sharing similar characteristics. Based on the information provided by CRS, the evaluation team will use two strata, namely Woredas[10] and livelihood eligibility. The next step is to allocate kebeles within a given Woreda and livelihood eligibility status to treatment and control. For example, let's consider a hypothetical Woreda with 24 kebeles, out of which 12 are livelihood eligible kebeles. Within this group of kebeles, 5 will be allocated to the control group and 7 will be allocated to the treatment group. The same will be done for the other 12 kebeles that are not eligible to receive livelihood interventions. This approach ensures that treatment and control groups are balanced by the strata used.

[8] Since these kebeles were selected based on specific characteristics and not randomly selected, it is not possible to construct a valid control group.
[9] A randomization where both packages are given to the same number of kebeles was deemed infeasible due to the total number of households targeted by the IP.
[10] The Woreda was used as the stratum of randomization for two main reasons: (i) it will allow to provide balance of treatment assignment geographically and (2) the woreda is the main administrative structure for local government which shapes local public expenditure and public service delivery.

2.3. Power Calculations and Sampling Strategy

2.3.1. Power Calculations

To calculate the required sample size, we considered a set of focal outcome indicators that satisfied the following criteria: were relevant to the research question, were available, easy to collect, and covered the population groups of interest. Table 2 contains descriptive statistics for 5 focal indicators for Amhara and Oromia, computed using data collected as part of the SPIR program endline evaluation.[11] These indicators are directly related to food insecurity for the relevant populations affected by the RFSA package: 2 indicators at the household level, one indicator for women, and 2 for children. The proposed sample size would allow the evaluation team to identify a reasonable minimum detectable effect (MDE) for all of them. We are confident that the statistical power will be enough to identify changes in other outcomes of interest.

Table 2. Descriptive statistics of selected outcome indicators

Variable	Mean	SD	ICC	N. HH[12]
Raw score from 8 Food Insecurity Experience Scale (FIES) questions	3.39	2.63	0.32	3,775
Household is moderately or severely food insecure based on FIES score	45.3%	50%	0.27	3,775
Met Minimum Dietary Diversity for Women	7.9%	27%	0.06	3,704
Children aged 6–23 months who meet minimum dietary diversity (5 of 8 food groups	1.2%	0.11	0.10	722
Children 6–23 months of age who meet the minimum meal frequency	67.9%	0.47	0.17	720

Note: SD stands for standard deviation. ICC stands for Intra-cluster correlation. N. HH stands for number of households

To select the sample size, the evaluation team started with a sample size of around 4200 households,[13] which is aligned with initial budget discussions. This number of households corresponds to 35 households per kebele, or 1750 households in treatment and 2450 households in the control arm. It is important to note that for the outcomes related to children we only considered 6 households per kebele (around 19% of the 35 households) since not all households have children 6–23 months old. This mirrors the number of households with children under 36 months sampled in the SPIR endline evaluation survey (720 out of 3775), as well as the percentage of households that had a child 6–23 months old in the 2016

[11] Because information for the 120 kebeles part of the IE study was not available, we relied on information collected as part of the SPIR program in the areas of Amhara and Oromia.
Outcome Data from SPIR evaluation endline; See Alderman, Harold; Gilligan, Daniel O.; Hidrobo, Melissa; Leight, Jessica; Ramani, Gayathri V.; Taffesse, Alemayehu Seyoum; and Tambet, Heleene. 2021. Impact evaluation of the strengthen PSNP4 institutions and resilience (SPIR) development food security activity (DFSA): Endline report.
[12] N of HH corresponds to the number of households in the SPIR endline report. For outcomes related with children only households with children aged 6–23 months were included.
[13] This number includes the treatment and control groups. Since 120 kebeles will be part of the study, this corresponds to surveying 35 households per kebele.

Ethiopia DHS survey (17.8 percent). In later steps the research team explores the implications of changes in the proposed cluster size, to come to a final decision about the total number of households to be surveyed.

Table 3 presents the MDE sizes for each of the 5 indicators. The following assumptions were used in their computation:

- Sample size will be based on a cluster randomized design
- Intra-cluster correlation (ICC),[14] base level (mean) and standard deviation (SD): values specified in Table 1
- Power level: 80%
- Confidence level: 95%

Table 3.[15] Minimum Detectable Effect (MDE) Sizes for Key Food Security Outcomes in Amhara and Oromia Assuming a cluster size of 50 for the control group and 70 for the treatment group (35 households per cluster)

Variable	Mean	MDE	MDE as % of SD
Raw score from 8 FIES questions	3.39	0.268	0.101
Household is moderately or severely food insecure based on FIES score	45.3%	12.11pp	0.243
Met Minimum Dietary Diversity for Women	7.9%	4.1pp	0.154
Children aged 6–23 months who meet minimum dietary diversity (5 of 8 food groups)	1.2%	4.14pp	0.37
Children 6–23 months of age who meet the minimum meal frequency	67.9%	11.25pp	0.24

Table 4 presents the power calculations for a design with 50 clusters in the control group and 70 in the treatment group. This corresponds to comparisons between PSNP Basic (the control group) and the *Ifaa* Enhanced package. The last column of the table computes the ratio of the MDE to the standard deviation of the indicator. Based on the proposed 35 households (6 for children's outcomes) per kebele, we can see that the MDE for the indicators at the household level and the ones associated with women are between 0.10 and 0.24. This is reasonable for an RCT that is trying to measure the impact of a large package of interventions and is also aligned with the values for similar studies.[16] The MDE for the 2

[14] The intra-cluster correlation is the fraction of the total variance of an outcome that can be explained by the within cluster variance.

[15] The MDE was computed using the command power in STATA. For continuous variables the command used was power twomeans `var_mean', m1(30 33 35 40 45 50 60) k1(50) k2(70) power(0.8) rho(`icc') direction(upper/lower) one-sided cluster. For binary variables the command used was power twoprop `var_mean',m1(30 33 35 40 45 50 60) k1(50) k2(70) power(0.8) rho(`icc') direction(upper/under) one-sided cluster. The variables `var_mean' and `icc' where directly obtained from the SPIR data.

[16] See Alderman, Harold; Bachewe, Fantu; Gilligan, Daniel O.; Hidrobo, Melissa; Leight, Jessica; Ledlie, Natasha; Ramani, Gayathri V. and Taffesse, Alemayehu Seyoum, . 2019. Impact evaluation of the strengthen PSNP4 institutions and resilience (SPIR) development food security activity (DFSA): Baseline report. This study reports values of MDE for three variables (Child HAZ, Mother's nutrition knowledge and household food gap) that are around 0.3 SD.

indicators related to children's outcomes are larger than the other three; this is partly a reflection of the lower cluster size for this indicator. A reduction in this MDE would require a sizable increase in the sample size of the study and was not deemed feasible from a budgetary point of view.

In addition to looking at the whole 120 kebeles, the research team explored the statistical power associated to looking within livelihood eligible or not eligible kebeles. For this exercise we considered 25 clusters in the control group and 35 clusters in the treatment group. Because we are considering half of the kebeles (60), the MDE increases for all the indicators. The values obtained, even though larger, are still aligned with the values for similar studies.[17] The one indicator with a very high MDE is associated with a children's outcome. As discussed before, that high value is due to only some households having children in the specified age bracket.

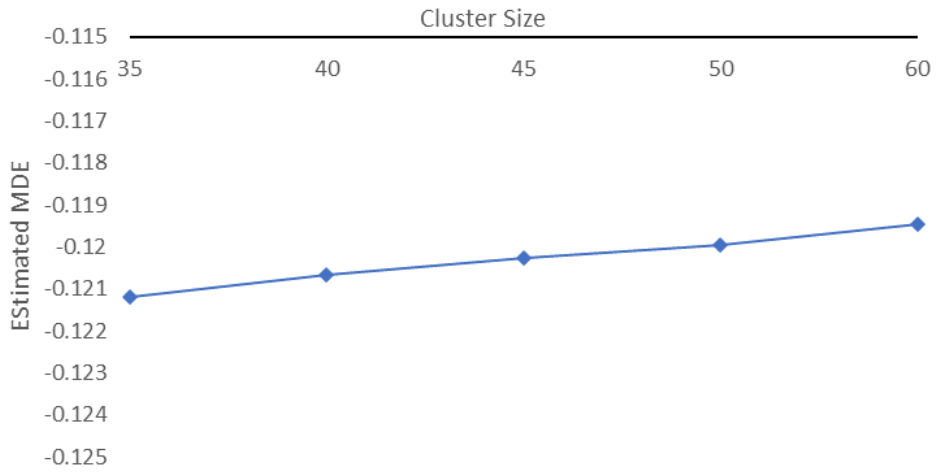
Table 4. Minimum Detectable Effect (MDE) Sizes for Key Food Security Outcomes in Amhara and Oromia Assuming a cluster size of 25 for the control group and 35 for the treatment group (35 households per cluster)

Variable	Mean	MDE	MDE as % of SD
Raw score from 8 FIES questions	3.39	0.380	0.14
Household is moderately or severely food insecure based on FIES score	45.3%	16.87pp	0.33
Met Minimum Dietary Diversity for Women	7.9%	6.1pp	0.22
Children aged 6–23 months who meet minimum dietary diversity (5 of 8 food groups)	1.2%	6.93pp	0.62
Children 6–23 months of age who meet the minimum meal frequency	67.9%	15.41pp	0.33

The research team explored the implications of increasing the proposed sample size of 35 households per kebele. As can be seen in Figure 1, an increase in the number of households of 50% (increase of 20 households) has only a marginal impact on the MDE for the indicator "Household is moderately or severely food insecure based on FIES score." A similar behavior was observed for the other indicators. The low impact of an increase in the cluster size is related with the characteristics of a cluster RCT. Because of the similarity of households within a kebele, increasing the sample size within a cluster has diminishing returns in terms of reductions of the MDE.

[17] See previous footnote.

Figure 1.[18] MDE for the indicator *Household is moderately or severely food insecure based on FIES score* (different cluster sizes, 50 control clusters and 70 treatment clusters)



The final aspect to determine the sample size considers the possibility of attrition (non-response). Based on the literature and an estimate of the attrition from SPIR phase I, the research team considered that an attrition rate of 10% was a conservative enough value. Given this value, the study suggests sampling 4,680 households or 39 households per cluster at baseline.[19]

2.3.2. Sampling Strategy

Based on the discussion in the previous section, the evaluation team will be sampling 39 households in each one of the 120 kebeles, for a total of 4680 households at baseline.

This section will discuss the strategy used to sample households and individuals within the households. At the end of the section, we provide a description of how the sampling will be operationalized.

Households that meet the inclusion criteria will be randomly sampled in each kebele.

Household inclusion criteria: To be included in the sample, households must be PSNP participant, as these are the households targeted for the CRS *Ifaa* interventions. We will also limit the sample of households to those with women of reproductive age (15–49 years old), as these are target women for many indicators. In addition, this strategy will increase the likelihood that the household will have a child under the age of 5.

This strategy will primarily exclude elderly households and is justified by the following reasons: (i) most PSNP households have at least one woman of reproductive age,[20] and (ii) because of the nature of the *Ifaa* Enhanced Package, elderly households are not likely to be substantially affected by the enhanced

[18] All the power calculations portrayed in this graph were computed using the Stata command twoprop `var_mean', k1(30 45) k2(45) m1(35 40 45 50 60) power(0.8) rho(`icc') onesided(lower) cluster. The negative effect size is related to the fact that we expect the interventions to reduce the FIES score.
[19] According to our calculations: 120*35/0.90 = 4,666 households total, or 38.8 households per cluster rounded to 39 households per cluster or 4,680 households.
[20] Based on authors calculations from a PSNP4 dataset, 82.5 percent of PSNP households had a woman of reproductive age.

package. Most of the interventions, such as those related with nutrition, youth, and livelihoods, target households with children, youth, or working age members. In addition, many nutrition and health outcomes are specific to young children or women of reproductive age. Accordingly, the sample selected will be representative of the households predominantly targeted by the PSNP+RFSA interventions.

Within individual household selection: The evaluation team proposes to randomly select or purposively[21] select one target individual for each outcome[22] as opposed to interviewing every eligible individual. The primary reason for this choice is that interviewing every eligible individual in the household is very time-consuming and costly not only for the household but also for data collection. For power reasons, we do not need more than one individual per household, and in general outcomes would be highly correlated within households. Thus, the additional information provided is limited. Typically, interviewing multiple individuals per household is useful if the objective is to compare outcomes across individuals in the same household: for example, in polygamous households comparing outcomes for first versus second wives. However, this is not part of the IE design, and thus it is not worth the additional costs. Given the previous considerations, Table 4 provides more detail about the sampling strategy.

Table 5. Sampling Strategy

Module	Sampling Choice
D: Children's Nutritional Status and Feeding Practices[23]	Prevalence of exclusive breastfeeding (children 0–5 months): randomly sample one child in this age range. Children's feeding practices and diets (children 6–23 months): randomly sample one child in this age range. Children's diarrhea (children 0–59 months): randomly sample one child in this age range.
E: Women's Health, Nutritional Status, Dietary Diversity, and Family Planning	Randomly sample one women 15–49 years old
G: Agriculture	Select the person most informed about agriculture production in the household[24]
J: Gender (Cash)	Select adult most knowledgeable about household affairs and spouse[25]

[21] This selection will be used when we want to target one person more knowledgeable about the set of questions.
[22] The within household selection processes will be embedded in the survey tool. When a random member of the household needs to be selected the survey tool will do the randomization using the household roster.
[23] Causal Design will randomly select children 0-5 months, 0-23 months and 0-59. This selection will be done independently, so that the same child could be selected twice (e.g., a child 8 months old could be selected for age bracket 6-23 months and age bracket 0-59 months).
[24] This selection will be done by asking the household head. To address issues around ownership and control, the survey will contain follow up questions on specific individuals involved in different activities.
[25] In the case that the household head is not married or in a union, the questions related to a couple won't be asked. In the case of polygamous households, we will randomly select from available wives.

Module	Sampling Choice
K: Gender Access to Credit and Group Participation	Select adult most knowledgeable about household affairs and spouse[26]

To sample the households, we will use a sample frame of PSNP households provided by the IP. The limitation of this dataset is that no information on the age of the household's members is provided. For each kebele, PSNP households will be randomly ranked[27] and the first 39 households will be surveyed. If a household doesn't have a woman of reproductive age, the survey will be immediately terminated, and the next ranked household will be surveyed.

2.4. Cost-Effective Analysis

The CEA will focus on the cost-effectiveness of the entire RFSA implementation (measured by the *Ifaa* Enhanced package of interventions) over the course of its entire implementation. It will not examine the relative cost-effectiveness of different packages of interventions or the PSNP Basic package of interventions since CRS does not track their expenses by intervention. Due to some specificities in the way CRS collects its costs (see section 2.4.2 on cost accounting), the Causal Design team is working on an updated CEA protocol. This section, as well as section 4.4, should be considered as preliminary and will be updated in the next months.

This analysis will be viewed from the following dimensions:

- Output or outcome results data from monitoring indicators of the entire intervention.
- Detailed cost per outcome calculations for selected and relevant monitoring indicators; and,
- Perceptions of effectiveness from the implementers.

The conclusions will contribute to building a body of knowledge towards understanding the cost-effectiveness of resilience, food security, and emergency interventions.

2.4.1. CEA Perspective

The CEA will use the donor's perspective of costs and outputs: often called the **program perspective**. While this perspective does not capture the true cost of providing interventions to society (such as the cost of the farmer's time or materials), it is a useful perspective for understanding the cost-effectiveness of programs. This perspective is often used to understand where cost savings can be achieved for the IPs. It is also done to compare alternative development approaches for achieving the same outcome or output. In the program perspective, expenditures by external stakeholders (e.g., households) will *not* be included in the final cost-effectiveness analysis, but these will be considered and discussed as leveraged contributions from other parties.

[26] In the case that the household head is not married or in a union, the questions related to a couple won't be asked. In the case of polygamous households, we will randomly select from available wives.
[27] Within kebele each household will be assigned a random number. Households will be ranked by this number.

2.4.2. Ingredient-Based Costing

We will use ingredient-based accounting of project delivery costs.[28] This approach allows for a detailed, disaggregated understanding of the implementation costs by the expenses (or resources) that make up an intervention. This approach will be facilitated by the total non-salary costs accounting done by CRS *Ifaa* and its IPs. This should provide more information on interventions where economies of scale or efficiencies can be achieved, which may be useful for future program design and management decisions and may also be helpful for understanding the cost for scaling any interventions.

Ingredient costs will be disaggregated into expenditures such as training, travel, consultant fees, communications, office supplies, building rent, equipment rentals, utilities, facilities costs, vehicle expenses, and equipment. CRS and its IPs will be using the same financial software, so costs across the entire activity will be accounted for using the same ingredients, or expenditure types.

We will collect administration costs separately (e.g., project staff salaries, equipment, supplies, fringe benefits). We will also include indirect expenses from headquarter staff, or those who are not billable entirely to *Ifaa*. However, these costs will be treated separately (see analysis section below). Lastly, we will separate the refinement period and implementation period costs in the final analysis.

2.4.3. Period of Analysis and Real Figures for all Cases

The timeline for both the cost and the measure of outputs will be from the beginning of the BL evaluation data collection (2022) until EL data collection (2025). We will use 2022 as a base year (using real figures by removing inflation from the analysis).[29]

2.4.4. Cost-Effectiveness Ratio

The analysis will evaluate the cost-effectiveness ratio (CER) of difference before and after the RFSA from key monitoring indicators The CER will reflect the cost on a per unit basis, with different measures of effectiveness for the units. These measures of effectiveness are incremental outcome measures that will come directly from monitoring indicators. The ratio takes the form below:

$$CER = \frac{Fixed\ Costs + Activity\ Costs}{Measure\ of\ Effectiveness}$$

A discussion on fixed and variable costs and which measures of effectiveness might be used are included in the CEA Analysis section below.

[28] An earlier version of this PAP proposed activity-based costing. However, a conversation with CRS on March 29, 2022 confirmed that they do not have the ability to track expenses by activities. CRS and its partners will be reporting expenses by "ingredients." CRS did however confirm that they will be able to track expenses by their sub-contractors, which are each working on different activities. We have requested more information to see if it might be possible to still track expenditures by activity (e.g., "Strengthening government services," "Expanding extension services") if there is little to no overlap in activities by the sub-contractors; however, this information was not shared by the time of this draft. If later it becomes clear that there is little to no overlap in activities implemented by the sub-contractors; we may still be able to provide costs by activities as well as ingredients.

[29] Base year means the analysis will be done in 2022 USD. This implies that inflation in years after 2022 will be removed from the cost calculations, allowing for a comparison on real costs alone.

2.4.5. Qualitative Context for Interpretation CEA Results

To complement the CER results, we will also interview key stakeholders to better understand where they perceive any cost efficiencies to exist and what may have been driving those results. Once the CER results are available, interviews with project managers and other key stakeholders will explore qualitative aspects of implementation. This line of inquiry will help the evaluation team understand what aspects of implementation may have been rather expensive and any strategies for making the implementation more affordable.

Finally, we will leverage these interviews to understand whether the CEA results might be capturing non-RFSA interventions and if that might lead to interventions appearing more or less cost-efficient than they would be in the absence of the actions of external stakeholders.

Key questions for the qualitative CEA inquiry include:

- Have the planned outcomes been achieved, and if not, why not? Was this due to implementation challenges or to other factors, independent of the project's ability to deliver?
- If the achievement is significantly beyond what was expected, what are the reasons? Are there external factors that contributed to this over-achievement? Or was there something about the implementation that led to these results?
- Was the project able to leverage resources from other parties? What other costs were there (beyond IPs) that were incurred for *Ifaa's* achievements?
- What other interventions were operational in the same areas as *Ifaa* that may have helped contribute to *Ifaa*'s achievements? Were other activities or interventions in the area leveraged well?
- From your perspective, what aspects of this intervention were done cost-effectively? Why? Which aspects were not done cost-effectively? Why not?
- What were unexpected costs or relatively expensive costs in the *Ifaa* program?

Additionally, we will thoroughly review project documentation (e.g., quarterly and annual reports and the midterm evaluation) for possible cost variations and their causes.

3. DATA COLLECTION

All questionnaires will be drafted initially in English using Open Data Kit (ODK) software. After receiving BHA, IMPEL, and IP's approval, Causal Design will translate surveys into Oromo, Amharic, and Somali utilizing local partner staff.

3.1. Survey Design

Impact Evaluation: Causal Design intends to implement the same household questionnaire at both the BL and EL periods, with the exception of anthropometry which will only be collected at endline. The foundation of the survey will draw from selected BHA indicators from the BHA baseline/endline indicators handbook[30] as confirmed by BHA, IMPEL, and IPs. Where required, surveys will be adapted to

[30] https://www.usaid.gov/food-assistance/documents/ffp-indicators-handbook-part-i-indicators-baseline-and-endline-surveys-RFSA

local context, and adjustments will be made between survey periods. The questionnaires include a combination of the following modules:

- Module A: Household identification and informed consent
- Module B: Household roster
- Module C: Food access (e.g., FCS and FIES)
- Module D: Children's nutrition and health
- Module E: Women's nutrition, breastfeeding, and antenatal care
- Module F: Household water, sanitation, and hygiene
- Module G: Agriculture
- Module H: Household Poverty
- Module K: Gender Access to Credit and Group Participation
- Module J: Gender–Cash
- Module R: Resilience Module

3.2. Outcome Indicators

The list of outcome indicators for the RSFA are in the appendix. These indicators reflect discussions with USAID/BHA and intervention programming that CRS will implement in target areas. These indicators are also listed in the BHA baseline/endline indicators handbook referenced in section 3.1 above.

Anthropometric data: Due to the COVID-19 pandemic and the ability to evaluate impact using only EL data within this evaluation design, anthropometric data won't be collected as part of the baseline survey.

3.3. Enumerator Training

Causal Design will engage a local data collection partner to recruit and train enumerators. Survey manuals and other training materials will be developed prior to the training period. The Causal Design team will monitor practice surveys during the training to verify comprehension and functionality of the instrument and the performance of the enumerators. Currently, Causal Design has scheduled (1) a pre-test focused on the survey tool, followed by 2) testing during enumerator training and then 3) field piloting[31] before starting the survey process.

3.4. Data Management

Data protocols: Questionnaires will be drafted using ODK, and all household survey data will be collected with electronic tablets utilizing SurveyCTO, a standard data collection application that allows for secure data storage and options for monitoring data quality. Causal Design staff will monitor incoming survey data to flag potential enumeration errors early in the data collection process. In accordance with best practices and regulation around human subject testing and data privacy, access to personally identifiable data will be limited, and anonymized data will be utilized for analysis. Data management protocols will also be approved by a U.S. certified Internal Review Board (IRB) and by the

[31] The pilots will take place in 3 kebeles outside of the area of study. These kebeles will be chosen so as to have similar characteristics to the area of study.

Ethiopian Society of Sociologists, Social Workers, and Anthropologists (ESSSWA) prior to any data collection, storage, and analysis.

Initial validation: Causal Design will work closely with IPs and BHA to review preliminary findings in accordance with the contextual validation activity outlined previously.

Quality assurance: Causal Design's internal Data Management Protocol (see section 5) outlines the activities and strategies that the research team implements to ensure that all data collection efforts meet industry and sector standards and expectations. This includes assurance that the data reflect high levels of USAID's five data quality standards:[32] validity, reliability, precision, integrity, and timeliness. These efforts are then mapped onto the wider phases of the project to demonstrate when they are being implemented and at what level. A full version of this protocol is available upon request.

3.5. Tentative data collection timeline

The following table contains a list of all the activities related to data collection, as well as a tentative timeline. Note that these timelines are preliminary and might be subject to changes.

Table 6. Baseline Data Collection timeline (preliminary)

Activity	Completion Time
IRB Approval (Local and US)	May 9, 2022
Survey training and pilot	May 3, 2022 – May 14, 2022
Quantitative data collection	May 15, 2022 – June 24,2022
Preliminary Indicator Tables	July 5, 2022

Table 7. Endline Data Collection timeline (preliminary)

Activity	Completion Time
IRB Approval (Local and US)	May 9, 2022
Survey training and pilot	October 28 – November 15, 2024
Quantitative data collection	November 18 – December 13, 2024

4. ANALYSIS

To assess the impact of the RFSA intervention over the course of the program, the Causal Design team will (1) present preliminary descriptive analysis utilizing baseline data, (2) conduct regression analysis to estimate the impact of the *Ifaa* RFSA utilizing both BL and EL rounds of data, and (3) estimate the cost-effectiveness of the different packages of intervention.[33]

[32] Conducting Data Quality Assessments | Program Cycle | Project Starter

[33] In addition to the experimental evaluation, Causal Design will perform a process monitoring evaluation. This evaluation is meant to assess the implementation process itself. Any systematic strengths and weaknesses of the implementation strategy

1.1 Descriptive Analysis

The preliminary analysis using the BL data will show the extent to which the randomization was successful in achieving balance at BL. The analysis will consist of descriptive statistics (presenting means and standard deviations) for the full evaluation sample and by treatment arm for all the BHA indicators specified in section 5.7. To ensure that the randomization was successful, we will present means for the treatment and control groups,[34] and then test whether any differences in means across the two groups are significant. The subsequent impact analysis (presented in section 4.2) can then correct for any imbalances by adding additional control variables as needed.

4.1. Impact Analysis

The evaluation activities will use Ordinary Least Squares or OLS[35] for continuous outcomes and linear probability models for binary outcomes. As needed, the research team will incorporate additional specifications that are meant to enhance statistical power, increase the validity of constructed comparison groups, or both. Examples include ANCOVA methodology that can be used to better account for BL levels of indicators and outcomes of interest.

Based on the original research question[36] the evaluation will use the BL and EL data to estimate the impact of the *Ifaa* Enhanced interventions on indicators observed at EL.

The IE model will estimate the average effect of the *Ifaa* Enhanced interventions on households within treated kebeles, compared to households in control kebeles who received only PSNP Basic interventions. The basic ANCOVA model:

(1) $$y_{ij} = \beta_0 + \beta_1 E_j + \beta_2 L_j + \beta_3 E_j * L_j + \beta_4 y_{ij0} + \varepsilon_{ij}$$

where y_{ij} refers to the outcome variable for individual or household *i* in kebele *j* at EL and y_{ij0} refers to BL values for the same outcome indicator; E_j is an indicator equal to 1 if kebele *j* received the *Ifaa* Enhanced interventions; L_j is an indicator equal to 1 if kebele *j* is a livelihood eligible kebele. The impact of *Ifaa* enhanced package compared to PSNP basic package for non-livelihood kebeles is represented by β_1. β_3 measures the additional impact of the livelihoods enhanced interventions and β_2 measures the difference between livelihoods eligible and non-eligible kebeles in the PSNP basic arm.[37] The error term, ε_i, will be clustered at the kebele level.

(2) $$y_{ij} = \beta_0 + \beta_1 E_j + \beta_2 L_j + \beta_3 E_j * L_j + \beta_4 y_{ij0} + M_j + \varepsilon_{ij}$$

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and process will be examined, as well as any contextual factors that may impinge on effective implementation. This evaluation will provide recommendations based on observations after careful qualitative data collection and analysis.
The process monitoring evaluation is not part of the experimental evaluation and is not discussed in this Pre-Analysis plan. A separate Pre-Analysis plan for the process monitoring will be delivered at the end of the year.

[34] In addition to this, the information will be available at the kebele and Woreda level and can be provided to the IPs or BHA.

[35] In statistics, ordinary least squares (OLS) and linear probability models (LPM) are methods for estimating the unknown parameters in a linear regression model. They are standard econometric methods used to establish and estimate empirical relationships between outcomes and a range of explanatory factors

[36] Section 2.1.1 contains the research question.

[37] This difference is both due to kebeles in the two groups being inherently different and also because livelihood eligible kebeles are receiving PSNP Basic livelihood interventions.

To account for the stratification, equation (2) adds a set of block dummies M_j. Although the random selection of kebeles ensures the regressors in (1) and (2) are exogenous, we include a third specification controlling for various household-level X_{ij} and kebele-level X_j covariates in equation (3). This is because randomization was done prior to the BL with limited information. Therefore, we cannot rule out the possibility of imbalance in some dimensions.

(3) $$y_{ij} = \beta_0 + \beta_1 E_j + \beta_2 L_j + \beta_3 E_j * L_j + \beta_4 y_{ij0} + \beta_5 X_{ij} + \beta_5 X_j + M_j + \varepsilon_{ij}$$

Sampling weights: In order for the evaluation team to include sample weights, we need to have a complete list of PSNP households with women of reproductive age for each study kebele. If we can obtain such a list, then the evaluation will include results of both weighted and unweighted estimations. Sampling weights will be calculated as the inverse of the probability of selection of the household in each kebele. This will give us a representative sample of PSNP households with women of reproductive age in the 120 target kebeles, however, these 120 target kebeles are selected based on specific criteria mentioned above and not representative of all *Ifaa* kebeles. Separate weights will also be calculated for indicators and adjusted to compensate for household and individual non-response. Given that sample weights are not needed to measure the causal impacts of the Enhanced package compared to the Basic package, we will also conduct unweighted estimations.[38]

Standard errors and p-values: Standard errors will be clustered at the kebele level. Given the large number of outcome variables, it is important to consider that as the number of outcomes tested increases, the likelihood of finding a statistically significant effect when there is no true effect (Type I error) increases. To account for this, we will report both the standard p-values and the p-values corrected for Family-Wise Error Rate and the sharpened q-values corrected for the False Discovery Rate. To generate q-values, outcomes will be organized into outcome 'families' according to sector (i.e., food security, child nutrition and health, women's health, WASH, agriculture, poverty, gender dynamics and resilience).

Attrition and missing data: In the case of significant levels of attrition, BL data on originally selected households will be compared with BL data of households that are present at EL. The research team will be able to test if attrition (or non-response) was imbalanced (by regressing the attrition dummy on treatment status) and/or non-random (by regressing the attrition dummy on various outcome indicators measured at BL). If attrition was found to be non-random and imbalanced, we can construct Lee Bounds—a conservative measure of the upper and lower bounds based on the most extreme sample selection—or conduct Inverse Probability Weighting.

The Analysis will not attempt to impute missing data points and responses will be ignored for the purposes of impact analysis. This will apply to questions where respondents refused to answer, stated an inability to answer, or otherwise unable to respond. Cases of implausible data will be shared with the enumeration team to verify the validity of the response or understand the root of the error.

[38] For a review of when sample weights are needed for causal estimates see Solon, Gary, Steven J. Haider, and Jeffrey M. Wooldridge. "What are we weighting for?." Journal of Human resources 50.2 (2015): 301-316.

4.2. Supplementary Analysis on Resilience Indices

In addition to the impact analysis described above, we will conduct additional descriptive analyses on the BL 8 (Adaptive Capacity Index), BL 9 (Absorptive Capacity Index), and BL 25 (Transformative Capacity Index). This analysis aims to provide additional insights on which elements of adaptive, absorptive, and transformative capacities are driving the overall index scores to provide useful programming insights for CRS. The analysis will be conducted at endline for both baseline and endline adaptive, absorptive, and transformative indices to provide insights for CRS on which capacities were relatively strongest and weakest at both points in time and which have seen the most growth over the evaluation period. We will report the weights on the index subcomponents generated from the principal components analysis (PCA) procedure to assess this. We will also assess how these weights compare to the overall distributions of each subcomponent to determine which subcomponents are most driving the overarching index scores.

4.3. Cost-Effectiveness Analysis

CRS measures its costs by ingredient (or type of expenditure, see section 2.4.2 on cost accounting), rather than by intervention or activity. Therefore, it is not possible to differentiate costs between the PSNP Basic (the control group) and the Enhanced package of interventions (the treatment group), which is necessary to tie the costs to the impact evaluation. Therefore, we will instead look at all costs for the RFSA and compare those to the progress of the activity as measured by the monitoring indicators, which should be reflective of the entire RFSA rather than just one package of interventions. In this way the costs match the output indicator. This means the CEA will be not reflect the results of the impact evaluation but of the before-after measures of progress. Since monitoring indicators do not contain a rigorously defined counterfactual, the CEA will not be able to directly measure cost-effectiveness attributable to an intervention.

Monitoring indicators for the *Ifaa* evaluation are proposed below. These measures were identified based on how closely these results can be attributed to CRS' programming for the entire RFSA (encompassing the full *Ifaa* Enhanced package of interventions). At the same time, we have also tried to identify measures that can best capture the full extent of the interventions and its results, or at least reflect most of the interventions. These overall outcome measures could include costs per:

- Reduced incidence of people living on less than $1.90 per day
- Household with reduced poor or borderline food consumption score (FCS)
- Increased incidence of children under five years of age with a healthy weight

4.3.1. Cost Data

As indicated in the CER explained above, cost data will be captured for fixed costs and for variable costs in the year in which the expense occurs. Definitions and collection plans for each type of cost are outlined below.

Fixed costs: Fixed costs are those costs that do not change based on the implementation of interventions. Fixed costs include the salaries of the senior project management personnel (e.g., the Chief of Party), financial, contract, and monitoring and evaluation (M&E) staff. Additional fixed costs

such as rent, security, and utilities that were incurred in Ethiopia will also be considered (we will not include non-Ethiopia fixed costs, which might slightly underestimate the costs of project implementation, but we believe the burden of collecting the data will be high). This data will need to be collected in cooperation with CRS and its partners.

Variable Costs: Variable costs are operational costs. Data for these costs (and the associated ingredient-based costing) will be pulled from the *Ifaa* financial database. To the extent possible, we will provide detailed cost data for the materials that were required for implementation (e.g., training, travel, consultant fees). We will also perform the analysis for all implementation costs, and only those after the refinement period.

Costs will be collected from CRS as well as its partners.

4.3.2. Cost-Effectiveness Analysis Results

Because our approach only can measure the costs for the whole RFSA, the associated CEA will produce one cost-effectiveness ratio per outcome measure relying on performance monitoring measures for *Ifaa*.

Our results may suggest, for example, that it costs $15 per household with an improved FCS score. Without the ability to measure costs for the PSNP Basic package, there is no immediate relevant comparison group to compare this figure to. As a result, the question becomes whether $15 per household with improved FCS score is relatively cost-effective.

To answer this question, we would need to compare this cost-effectiveness ratios to another cost-effectiveness ratio for a similar program with the same outcome measure. There are several other external programs that may help characterize or provide some insights about the relative effectiveness of *Ifaa*:

- We believe that we may be able to compare these results to a cost-effectiveness analysis from other RFSA impact evaluations in Madagascar which will have similar cost accounting and outcome measures. (although based on impact data rather than performance monitoring indicators). Other RFSA impact evaluations and accompanying CEAs may also be directly comparable (e.g., in Malawi, Uganda, and the other impact evaluations from Ethiopia).
- We anticipate that we can compare the *Ifaa* CEA results to the CEA results for the second RFSA that Causal Design is evaluating in Ethiopia, which will use the same outcome measures and a similar cost perspective (though the programming that is measured under the impact evaluation is different) , although this RFSA will also rely on impact data.
- Finally, we will review literature to identify other similar programming, such as Feed the Future activities or IEs from IFPRI, that were subject to an impact evaluation and measured cost-effectiveness using the same outcome measures. We believe this specific criterion will limit the amount of evidence that may be available for comparison; however, it may be possible to impute cost-effective ratios with available information (e.g., we may be able to create our own cost-effectiveness ratios if impact evaluations and performance indicators provide overall program costs and the same outcome measures).

There will be limitations to comparing the RFSA CEA results directly to any of these other programs listed above, specifically related to the similarity of the programming, type of data used to measure

effectiveness, and the context in which each activity operated. All limitations will be discussed in the final report.

4.3.3. Qualitative Data

We intend to complement our understanding of these results in interviews with key stakeholders (in the form of key informant interviews). These interviews will take place after the cost-effectiveness analysis is complete, and contingent on the availability of the stakeholders for interviews. Selected interviewees for key informant interviews will be individuals with relevant experience and who are knowledgeable about project implementation and the associated costs to provide rich insight. Currently, we anticipate these key informant interviews to be held with project management and possibly USAID personnel who are very familiar with the implementation of the interventions—but we may also include external stakeholders or direct participants. These interviews will be semi-structured interviews, driven by the methodology questions identified earlier in this document, as well as the results of the CEA analysis.

5. APPENDIX

5.1. Data Management

The objective of this section is to provide detailed guidance towards Causal Design's policy and protocols when storing, coding, and reporting data collected or shared with any staff member. All staff members including permanent salaried staff, permanent/part-time consultants, and previous staff are bound to uphold these agreements as part of their employment agreement with Causal Design as indicated in the employee handbook.

If any violations or accidental sharing of information that is not encrypted is mistakenly shared outside of Causal Design. The staff member shall immediately notify the Chief Privacy Officer (Keith Ives, also CEO) and the appropriate notifications will be sent to the IRB, clients, and any study participant whose data has been compromised.

This handbook drawn from an array or resources around data management and data quality assurance mechanisms including:

- *Handbook for Safeguarding Sensitive Personally Identifiable Information. Department of Homeland Security, March 2012*
- *Callahan, Mary Ellen. Handbook for Safeguarding Sensitive Personally Identifiable Information, Handbook for Safeguarding Sensitive Personally Identifiable Information § (2012).*
- *"Research Protocols." Innovations for Poverty Action, August 23, 2018. https://www.poverty-action.org/researchers/research-resources/research-protocols.*
- *Chuang, Erica; Diamond Pollock, Harrison; and Wylstra, Stephanie. "Reproducible Research: Best Practices for Data and Code Management." Innovations for Poverty Action., November 2015.*

5.2. Data Quality

- Create inception plan before launching survey operations: The inception plan is an operational plan that covers timelines, staffing needs, logistics, and procurement for your survey, for all

stages including questionnaire development, training, piloting, tracking, interviews, and quality assurance. Your inception plan must be in line with your budget(s); for example, you cannot survey more respondents in the baseline than your budget estimated — without overspending during your endline.

- Create data quality assurance plan and materials before launch: The data quality assurance plan lays out in detail the requirements for backchecks, high frequency checks, accompaniments, spot checks, and any other data quality assurance activities. The scope of the data quality assurance plan should not only include technical products, but also data flow, roles and responsibilities, reporting schedules, actionable items based on output, and incentive programs for the field team. It also includes your staffing needs, which may change over the course of the survey.
- Bench test survey (ideally at least two weeks in advance): Bench testing means testing your survey in the office with a minimum of three different testers. You will save time and money by making sure your survey works well BEFORE launching field data collection. Bench testing is an iterative process wherein testers run the survey in different scenarios and provide feedback, while the programmer(s) make changes; note that even small changes to a survey must go through the bench testing process again, as it is easy to make mistakes that affect other parts of the survey. This process works best if the "paper" survey is considered mostly complete and has already been reviewed by central decision-makers on the project.
- Pilot survey (ideally at least one week in advance): Every survey must be piloted prior to the beginning of the survey in communities outside your study sample. Your pilot should look as close to actual surveying as possible — you may even decide not to tell your field team it is a pilot. Ideally, every question that is included in the final survey should be piloted prior to launch. For surveys using Digital Data Collection, a pilot should include field testing of both the survey program and devices. Remember to leave time to make corrections to errors you identified during piloting.
- Accompany surveyors in first week of survey: Field supervisors must accompany a subset of field officers' interviews to monitor field officer performance and to check for survey issues. All field officers must be personally accompanied at least once during the first week of the survey. Accompaniments can be scaled down as the survey progresses, especially by leveraging digital supplements like audio recordings and meta-data.
- Implement and act on high frequency checks: High frequency checks provide insight into ongoing field team and data quality concerns before they become too entrenched or too late to manage. By running HFCs, you can regularly analyze (comparative) field officer performance, compliance with ethics requirements, response frequencies and outliers, duplicates, and other project-specific data quality issues. HFCs are meant to provide the evidence needed to successfully guide and manage a field team on a daily basis, and thus must be accompanied by strict guidance on roles and responsibilities, reporting schedules, and triggered actions (e.g., what outliers would trigger re-interviewing a household).
- Implement and act on backchecks: A backcheck (also known as a field audit or re-interview) refers to when a highly qualified field officer (also known as a back-checker) visits a respondent a second time to re-administer a selection of questions from the original questionnaire. Those backcheck responses are then compared to the original responses. An IPA generated code bcstats program can be used to identify discrepancies between answers, and thus to identify problems with the questionnaire, field team, or both. Your quality assurance plan should have included a backcheck randomization plan, as well as an action plan for what to do when you encounter discrepancies.

- Double enter & reconcile paper surveys: Although paper surveying is now uncommon, there are strict protocols for data entry from paper surveys. Each survey must be entered by two separate data entry operators who cannot compare responses. When there are discrepancies between their entries, they must be reconciled by a third data entry operator who looks at the original survey closely. In-house data entry can be replaced by online firms, which also provide double entry and allow for you to review discrepancies against the original survey responses.

5.3. Data Security & Research Ethics

If the IRB is used on you project:

- The Principal Investigator (PI) is responsible for maintaining Institutional Review Board (IRB) approval throughout project lifecycle (e.g. submissions, renewals, amendments, human subjects certificates): Any study conducting human subjects research must have the approval of at least one IRB; note that each project is different, so you should consult with your PIs and IRB Coordinator about how best to get IRB coverage for your project. A typical lifecycle includes approval of the initial research protocol, annual renewals, and amendments when critical items change, such as the questionnaire, staffing, research protocol, or risk level. All project staff, partners and investigators who can see encrypted personally identifying information (PII) must have up-to-date human subjects' certificates. Any deviation from the protocol, or any unexpected risk to respondents, must be reported as unexpected events to the IRB. Use Salesforce to keep track of all IRB approvals and upcoming renewal dates.
- Retire your project with all IRBs once the project is complete: Once your study is complete, you should retire or otherwise officially close out your IRB with all the reviewing IRBs. For the Causal Design IRB, you should retire your study when (A) all study interventions and activities are complete, and (B) you are no longer actively, regularly working with identified data. Other IRB(s) may have slightly different standards or procedures, so you should check with your reviewing IRB administrator(s) where relevant as well.

Whether the IRB is used on your project or not:

- Create data security plan and set up encryption (using Whisp.ly to transfer between partners https://whisp.ly/en?) before launch: Respondents' confidential data should be encrypted at all stages, starting at the moment of data collection. This includes while it is on the data collection device, during wireless transmission, while on an external server (e.g., Kobotoolbox, Commcare, SurveyCTO, etc.), when it is on a cloud storage system (e.g., Google Drive or Dropbox), and while on laptops and removable media (hard drives, flash drives). Any time the data is stored on a server that is not controlled by Causal Design; it must be separately encrypted so that the company that controls the server cannot access the data. You must plan beforehand how you will ensure encryption at each of these steps, and how it will be maintained after your project has been officially closed if you are retaining any PII. If you are using any IRB any un-encrypted data is uploaded to the cloud or emailed, you must file an unexpected event report to your IRB(s) and comply with any ruling they make. If you are not using an IRB you should report this to the Chief Privacy Office of Causal Design, Keith Ives.
- Maintain data security plan (especially encryption) throughout project lifecycle: At every stage of the project lifecycle, data should be properly protected. Among other things, this means PII should remain encrypted during storage and transmission, and passwords should be restricted to the critical members of your research staff.

- Use new UID in deidentified dataset: When you share or publish un-encrypted data, it must be deidentified, i.e. there must be no identifying information in the dataset, such as name or address, or a combination of variables that can be used to identify a respondent. You should also replace your original unique identifier (UID) with a new unique identifier. You should do this at the end stage of your project, when you have finished matching across waves or different data collection activities.

5.4. Knowledge Management & Transparency

- Back up data in at least two locations: There must be at least two copies of the data available at all times. During data collection, this will likely mean on a KoboToolBox/SurveyCTO/CommCare server, as well as on a laptop and synced to Google Drive; do not delete server data until it has fully synced to Google Drive as a protection from laptop theft. Post data collection, this could mean backing up your data on an external hard drive on the extremely rare chance that a major cloud service like Google Drive fails.
- Save ALL project files to and ONLY to Google Drive: Causal Design project files must be stored in the My Drive\3_CD_Projects superstructure on Google Drive. This includes in particular: raw data files, final versions of questionnaires, back check questionnaires, survey manual, project log and survey notes, high frequency check files, analysis do-files, IRB documentation, and replication code.

5.5. Data Storing/Sharing guidelines

The following bullets are intended for projects which are completed and are going to be stored long term on the Google Drive or any other survey.

5.5.1. Detailed Steps for Preparing Data and Code:

Remove PII: Check thoroughly for PII, and make sure to remove before sharing with the data repository team.

- All direct identifiers such as unique IDs (social security numbers, bank account numbers, and so on) should be removed before storing or with the. Indirectly identifying data such as combinations of variables which could uniquely identify participants should also be considered carefully before storing or sharing data.

Include clear variable labels and code value labels:

- Make sure that variables are clearly labeled.
- If it is a variable collected directly from the questionnaires, indicate this with a question number. If it is constructed, either include the construction in the name or label, or if complex/lengthy, include additional information in notes.
- Ensure that value code labels are provided, as they are needed for interpreting the data.

Include code file(s) with headers/comments:

- **Headers**: Include header with name of person who last wrote/edited the code, date, and software used (package and version).
- **Comments**: Use comments in the code to indicate which tables are produced.

Prepare Readme files:

- Please indicate: 1) which files are included in what is shared; and 2) how data and code files relate (i.e., what code runs on which data, to produce which outputs). We have a template for readme files that we are happy to share and is located on every project folder.

Include survey instruments:

- Ensure that you are sharing the final version used to collect the data.

5.5.2. Data Curation Steps That Data Repository Staff Will Complete

As the data repository team works on the dataset submitted, we will conduct the following three steps to ensure the quality of the materials that we share in our repository.

Confirming there is no PII shared in data or code files:

- It is the responsibility of the original researcher (s) to ensure that PII is removed, and IRB protocols do not permit sharing PII with the data repository team. However, the DR Unit will double-check that PII is removed before sharing, because of the high level of importance of maintaining confidentiality of research participant's information.

Examining data and code for usability:

- The data repository team will examine variable names and labels, value codes, and the statistical code. As a part of sharing high-quality data, we will attempt to fill in variable labels and/or notes in the dataset where we are able to glean further information from published tables or communication with researchers. Where there are many unclear variables, we may ask the researcher(s) to improve the dataset before publishing.
- We will run the statistical code to ensure that it produces the published tables.

Checking and sharing related materials:

- Supplementary readme file: As we conduct our data curation steps, we will track and share information that will help site users understand the steps that we took, and what we found. We will confirm with the original researcher before sharing this file along with the data.
- Study-level metadata: We have created a custom template with fields that we will fill in from all studies.

5.5.3. Project Language for Quality Assurance and Control

The following plan outlines the activities and strategies that the research team intends to put in place to help ensure that the data collection for the IMPEL meets industry and sector standards and expectations. This includes assurance that the data reflect high levels of the following dimensions:

validity, reliability, precision, integrity, and timeliness (USAID 2016). These efforts are then mapped onto the wider phases of the project to demonstrate when they are being implemented and at what level.

Table 8. Data Quality Assurance Activities

Project Phases	Data Quality Assurance Activity	Quality Dimensions
Phase 1: Discovery and Design	Literature Review and Sector Assessment	Validity
	Indicator Mapping	Validity
	Questionnaire Designed to Promote Proper Response Coding	Integrity
Phase II: Collection	Integration of Data Collection Activities with Existing IMPEL staff capacity	Reliability/Integrity
	Develop Data Collection Protocols and enumerator training	Reliability
Phase III: Analysis	Preliminary Data Spot Checks	Integrity
	Enumeration team review and Feedback	Validity
Phase IV: Reporting	Scheduled Analysis and Reporting	Timeliness

Validity

The research team will work closely with IMPEL and BHA project staff to ensure that the indicators and research design are valid measures. This is primarily addressed through efforts leading up to the proposed design of research activities. In this case, the research team combines the following to ensure that the proposed indicators and methods are valid for the scope of the research:

- Literature Review and Sector Assessment of current thinking and practice focused both on wider academic and implementation-based publications and on IMPEL specific reports and projects related to measurement; and
- Sector Experts feedback and consultation is included into all phases of the baseline.

Analysis created as a result of research efforts will undergo stakeholder review to further ensure that findings are interpreted correctly and account for contextual realities.

Reliability

The research team will also ensure that protocols are put in place to ensure consistency in data collection efforts. This includes the creation and implementation of training (if necessary), sampling, and data collection protocols, which undergo internal peer-review.

Precision

At the outset, the project will build on efforts to ensure data *validity* and utilize the literature review, desk research, and project documentation to comment on and revise our *analysis plan* that connects theories of change pathways to research objectives.

Integrity

Data integrity within the IMPEL program is delivered through specific systems and processes that manage data entry and safeguards to ensure proper data input.

The data input will rely on the following ecosystem:

The questionnaire will be designed to provide clear instruction on proper response coding;

Daily updates to our server will ensure proper data input by centralizing data input across data collectors; and

The research team will conduct spot checks on data taken during the population survey.

Timeliness

To ensure data timeliness, the research team has created a project work plan to ensure that scheduled analysis quickly follows data collection in order to guarantee that relevant findings can inform project implementation decisions and strategy.

5.5.4. Quality Assurance

During the implementation of this research, our Team Lead, Reimar Macaranas, supported by Causal Design's Project Management Office, will use state-of-the-art enterprise resource planning software to manage the project timeline, budget, and resources, to ensure high-quality, on-time delivery of all work products. Causal Design uses Intuit's suite of programs, which integrates timesheets, accounting, staff availability, budgeting, and project management functions to provide integrated access to all information needed to effectively manage projects. Mr. Macaranas will adhere to Causal Design's policy that any changes to implementation plans, or timelines are immediately updated in this system, to ensure we can always provide a real-time estimate of the expected resources necessary to complete a task or project, including both staff time and budget.

Causal Design also understands the paramount importance of quality assurance/quality control on all work products and technical deliverables, and of effective and frequent communication between the Team Lead and IMPEL. Causal Design's "no surprises" policy requires all project managers to keep clients regularly informed about progress, challenges, solutions, and concerns. IMPEL will therefore always be fully informed of all relevant activities and immediately consulted when guidance is needed. This policy ensures that the Causal Design team and KWSH will be partners in critical decision making on, and problem resolution in, all matters.

5.5.5. Quality Control

Quality control for all products will be managed by Mr. Reimar Macaranas. His academic training, years of leadership in research and evaluation, and role as Chief Operations Officer will be utilized to ensure all the Team's products meet or exceed the expectations of IMPEL. Mr. Macaranas will also provide executive-level oversight and senior technical review of all project tasks and deliverables. He will ensure IMPEL has access to the Causal Design team's key technical personnel that can answer questions at any time. He will verify that Causal Design's rigorous QC procedures are implemented and ensure that all

deliverables submitted to IMPEL meet the highest quality standards and require minimal rounds of revision. These quality control systems will ensure that the Causal Design team provides the highest possible quality services to IMPEL with minimal service disruption.

5.5.6. Data Processing and Procedures

Quantitative data will be collected using tablets and stored in a secure cloud-based server; analysis will be done using STATA. Causal Design will manage team for doing the data clean up, data entry, data analysis and reporting.

5.5.7. Ethical Considerations

We will ensure that our team, including all enumerators and contractors working on the project, adhere to the ethical guidelines outlined in the American Evaluation Association's Guiding Principles for Evaluators. The Causal Design team has experience in preparing IRB protocols for evaluations. For many evaluations, we have successfully worked with Solutions IRB to obtain IRB clearances on domestic and international studies.

After recruiting household survey participants, we will obtain informed consent for each person to be interviewed. We will explain the purpose of the study, the topics of the interview/focus group, the person's rights as a participant, including that their responses will remain confidential, and that participation is voluntary. We will provide contact information for the study investigators and appropriate IRB(s) (if used). The data collectors will review the information to be collected. We will use plain language and translate into Khmer. Participants will provide oral consent. The Causal Design team will work with IMPEL to obtain any necessary national or local IRB clearances as appropriate.

5.6. Intervention Packages

Table 9. Intervention Packages

	Basic PSNP	*Ifaa* Enhanced
Livelihoods		
Saving Group	X	X
SILC PSP (Private Service Providers) Model		X
Financial Literacy Training	X	X
Financial education		X
Support and training in business plan development	X	X
Life skill training		X
On-farm Livelihoods pathway	X	X
Off-farm Livelihoods Pathway	X	X
Wage Employment Pathway	X	X

	Basic PSNP	*Ifaa* Enhanced
Climate smart agriculture practices promotion though Lead Herders/Lead Farmers — Follower Farmers (LH/LF-FF)		X
Technical training on selected pathways	X	X
Producers marketing groups		X
Seven steps of marketing training		X
Business and marketing skills training	X	X
Access to Finance - Formal financial linkage (Credit track)	X	X
Livelihood transfer track ($300)	X	X
Credit guarantee fund (conditional capacity building)		X
Value chain financing co-investment		X
Youth fund ($250)		X
Technical support and follow up (coach and mentor)	X	X
Public work livelihoods linkage (e.g., Area closure)	X	X
Private Sector Engagement (Agro-dealers, SILC PSP, community animal health workers (CAHWs) & Private veterinary pharmacist)		X
Gender Youth and Social Dynamics		
Implementation of PIM Gender provisions: Monitoring implementation of PIM gender provisions (e.g., exemption of PLW until the child is 2 years, HHs without able-bodied labor in their house (i.e., have young children only provide her share of the household labor; Women will work 50% fewer hours on public works than men; Women will be assigned to light works. Construction of day care centers)	X	X
Monitoring implementation of GBV action plan included in the PSNP 5 (e.g., The program Grievance Redress Mechanism (GRM) supporting to accept appeals related to GBV and refer to locally available GBV response services	X	X
Leadership training for women and youth in leadership position		X
Community Conversations for adults and youth		X
The Faithful House/Islamic Families Life		X
Functional literacy (it targets women and youth in leadership including in kebele and community FSTFs)		X
Youth voluntarism		X
Youth Employability Skills (YES) curriculum, I am an Entrepreneur (IAE)		X
School gender club's curriculum		X

	Basic PSNP	*Ifaa* Enhanced
· Trainings on GBV Interventions at various levels using developed curriculum		X
· Establishment of GBV committees at kebele level		X
· Support to Woreda GBV task force (including linkage with Kebele level committees, material supports)		X
Male engagement		X
Gender champions		X
Social cohesion including youth peace ambassadors (YPA)		X
Dignified Families Approach		X
PSNP Systems		
Provision of **three** food components (wheat, oil, and pulse) to PDS and PW clients—to meet the daily food kilo/calorie requirement.	X	X
FSTF Capacity Building (woreda, kebele, community level)	X	X
Private sector engagement: transportation of food from PDP to FDP, construction of SEIs	X	X
Strengthen KFSTF as well as establishing and supporting an inclusive and participatory Community Technical Coordinating Forum (CTCF) to facilitate community visioning and inclusive kebele development plan		X
FSTF Capacity Building, specifically focusing on Leadership & Communication Essential training, in addition to the basic FSTF capacity building		X
Private sector engagement: transportation of food from PDP to FDP, construction of SEIs (same as PSNP basic)		X
Health and Nutrition		
Linkage to services (Ensuring transfers for TDS, supporting TDS PW clients to attend PW SBC sessions, and other Health and Nutrition services like ANC (antenatal care), growth monitoring, immunizations, etc.)	X	X
Capacity building training for government and partner staffs- Adolescent nutrition, CMAM, RLs materials.	X	X
GoE basic health extension program	X	X
GoE supportive supervision coaching	X	X
GoE led community SSB sessions (expected to be held monthly targeting temporary direct support clients).	X	X

	Basic PSNP	*Ifaa* Enhanced
Additional health extension programs (includes remote trainings, lead parents, motivation of health development armies)		X
System strengthening through the capacity building and provision of materials (referral pads, formats, reg. books, SC materials, etc.)		X
CRS Enhanced SBC (those interactive SBC tools like Speaking books, child Nutrition cards, Care Group Model (CGM) modules related counseling cards, ATK Communication Materials and other reinforcing messages embedded in CMAM/IYCF materials, etc.)		X
Audio toolkit communication material on nutrition, harmful traditional practices (HTPs)		X
CGM approach		X
Adolescent nutrition - School clubs		X
Religious leaders' mobilization and training on prioritizing Pregnant and lactating women, CU5 and adolescents during fasting, etc.		X
Labor and time saving technologies for mothers & care givers		X
Home garden promotion		X
Nutrition budgeting (using seasonal food calendar)		X
Environment and NRM		
Training Woreda GoE on equitable allocation and disbursement of resources for PSNP plan implementation	X	X
Watershed management planning	X	X
Land capability classification for soil and water conservation purpose	X	X
Standard operation plan (SOP)	X	X
Train community members in planning, implementation and sustaining community assets	X	X
Training on the public work (PW) operational maintenance manual (OM)	X	X
Linking communities to WFSTFs for planning, implementation, and monitoring of community assets	X	X
PW implementation (Biological Soil and water conservation interventions - Agroforestry)	X	X
Support watershed management committees to transition to cooperatives		X
Implementation of the ESMF	X	X

	Basic PSNP	*Ifaa* Enhanced
IWM+:[39] merging IWM (to develop, restore, and protect degraded water, soil, and land resources) and IWRM (water supply, risk management) and Water Benefits Calculator)		X
FMNR: land restoration technique—introducing FMNR approach, organizing user groups and leveraging with agro-forestry practices.		X
Train GoE staffs on the participatory watershed planning with practical demonstration based on using revised watershed guidelines		X
Strengthen community level capacity to work with the W/KFSTFs to mobilize PW labor during PW sub-project planning, implementation, joint monitoring, and evaluation.		X
Enhance the level of participation of WFSTF and the woreda watershed technical team to participate on community level PW planning process and joint supervision.		X
Technical training on ESDM (environment sound design and management) for project staff and local partners.		X
Strengthen watershed users' cooperative establishment through capacity building on local resource governance and sustainable management		X
Quality data management with ICT4D/GIS, developing and dissemination of visualizations/reports of all infrastructure.		X
Sensitization and orientation on Revised watershed guidelines and proclamations to establish watershed users' cooperative through capacity building on local resource governance and sustainable management		X
Digitizing/geo-referencing of all PW activities (point, line, and polygon).		X
WASH		
Water development, monitoring, and governance	X	X
CLTSH		X
Market Based Sanitation and Hygiene		X
Private sector engagement		X
Ensuring water quality and safety		X
School WASH		X
WASH system strengthening		X

[39] IWM+ won't be evaluated as part of the impact evaluation study. A specific set of kebeles was purposefully selected to receive those interventions and thus it is not possible to perform any type of randomization to have a control group.

5.7. Indicators List

Table 10. *Ifaa* Indicators List

BL #	RFSA Indicators	Relevant Modules
BL 6	Prevalence of moderate and severe food insecurity in the population, based on the FIES	C
BL 10	Percent of households with poor, borderline, and adequate FCS	C
BL 12	Prevalence of children 6–23 months receiving a minimum acceptable diet (MAD)	D
BL 13	Prevalence of exclusive breastfeeding of children under six months of age	D
BL 14	Percent of children under age five who had diarrhea in the prior two weeks	D
BL 15	Percent of children under five years old with diarrhea treated with Oral Rehydration Therapy	D
BL 39	Prevalence of children 6–23 months consuming a diet of minimum diversity (MDD-C)	D
BL 11	Percent of women of reproductive age consuming a diet of minimum diversity (RiA)	E
BL 26	Percent of births receiving at least four antenatal care (ANC) visits during pregnancy	E
BL 36	Percent of women in a union who have knowledge of modern family planning methods that can be used to delay or avoid pregnancy	E
BL 37	Percent of women in a union who made decisions about modern family planning methods in the past 12 months	E
BL 16	Percent of households using basic drinking water services	F
BL 17	Percent of households with soap and water at a handwashing station on premises	F
BL 18	Percent of households in target areas practicing correct use of recommended household water treatment technologies	F
BL 19	Percent of households in target areas practicing open defecation	F
BL 27	Percent of households with access to a basic sanitation service	F
BL 21	Percent of producers who have applied improved management practices or technologies	G
BL 29	Percent of farmers who used financial services (savings, agricultural credit, and/or agricultural insurance) in the past 12 months	G
BL 30	Percent of farmers who practiced the value chain interventions promoted by the activity in the past 12 months	G
BL 1	Prevalence of Poverty: Percent of people living on less than $1.90/day	H

BL #	RFSA Indicators	Relevant Modules
BL 2	Depth of Poverty of the Poor: Mean Percent shortfall of the poor relative to the $1.90/day	H
BL 40	Daily per capita expenditures (as a proxy for income) in USG-assisted areas	H
BL 32	Percent of women and men in a union who earned cash in the past 12 months	J
BL 33	Percent of women in union and earning cash who report participation in decisions about the use of self-earned cash	J
BL 34	Percent of women in union and earning cash who report participation in decisions about the use of spouse/partner's self-earned cash	J
BL 35	Percent of men in union and earning cash who report spouse/partner participation in decisions about the use of self-earned cash	J
BL 41	Percent of women/men in a union who are members of a community group	K
BL 42	Percent of women/men in a union with access to credit	K
BL 43	Percent of women/men in a union who make decisions about credit	K
BL 8	Adaptive capacity index	R
BL 9	Absorptive capacity index	R
BL 23	Ability to recover from shocks and stresses index	R
BL 24	Percent of households that believe local government will respond effectively to future shocks and stresses	R
BL 25	Transformative capacity index	R
BL 38	Index of social capital at the household level	R
BL 31	Percent of households participating in group-based savings, micro-finance, or lending programs	R/K

ANNEX B: LIST OF INTERVENTIONS

Table 11. Intervention Packages

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
Agriculture and Economic Livelihoods			
Savings and Internal Lending Communities (SILC) Group	X	X	**Target clients:** 30% of PW livelihood clients. The clients are both youth (18–29) and adults (30+). **Intervention Details:** 30% of PW clients will be organized into SILC groups with membership ranging from 20–25. The groups will be self-selected but will consist mainly of PSNP clients. The groups are formed by Field Agents (FAs) who continue providing support to the group as needed. FAs visit the groups once every month for mentorship and guidance. The groups can reform at the end of a cycle (1 year). The groups will meet every week or by weekly and it is an entry point for the livelihood and agricultural sector interventions. **Expected outcome:** SILC will improve culture of saving and lending and provide members opportunity to borrow money they can use for livelihoods, Income Generation Activities (IGA) engagement and other interventions. A small portion of the SILC money goes towards social support including medical and school fees.
SILC Private Service Providers (PSP) Model		X	**Target clients:** 30% of PW livelihood clients. The clients are both youth (18–29) and adults (30+). **Intervention Details:** 30% of PW clients will be organized into SILC groups with membership ranging from 20–25. The groups will be self-selected but mainly PSNP clients. The groups are formed by FAs who also continue providing support to the group as needed. FAs visit the groups once every month for mentorship and guidance. The groups can reform at the end of a cycle (1 year). The groups will meet every week or by weekly and it is an entry point for the livelihood and agricultural sector interventions. In addition to these, SILC PSPs will convert the FAs to PSPs who will continue to support groups on a fee for service basis. CRS will stop paying FAs once they become PSPs. The PSPs will also be support to for PSP networks and they will continue to nurture apprentices from strong SILC members. To diversify PSPs economy, *Ifaa* will also network

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			PSPs under private sector agro-dealers as a sells agent based on commission (5%). **Expected outcome:** SILC will improve culture of saving and lending and provide members opportunity to borrow money they can use for livelihoods and other interventions. A small portion of the SILC money goes towards social support including medical and school fees. PSP kebeles are expected to be more sustainable since the PSP are skilled and continue to exist beyond *Ifaa* support.
Financial Literacy Training	X	X	**Target Clients:** All SILC members. **Intervention Details:** This a GoE PSNP PIM required training that will be provided to all SILC members on CRS GoE financial literacy curriculum. All households that are selected to participate in livelihoods activities should participate in financial literacy training. Training for PSNP clients will be provided by a variety of service providers depending on the woreda: Financial Service Provider agents, cooperative promoters and accountants, and other specialized service providers such as non-governmental organizations. Training topics: Financial literacy trainings will use a toolkit that will be revised based on the assessment financial planning and budgeting. • Savings—the importance of savings, and how to save. • Understanding credit and manage business. • Calculating at least gross profits. • Risk management and insurance (tailored to locally available insurance types, e.g., credit life insurance). **Expected Outcomes:** provision of financial literacy skills is expected to increase program clients' employability and/or engagement in IGAs.
Financial education		X	**Target Clients:** All SILC members. **Intervention Details:** This will entail training using CRS smart skill curriculum, financial education module that comprise of four booklets. Main additional topics to the financial literacy above include: • Goals, Income, Expenses, and Budgeting. • Borrowing. **Expected outcome:** The training will equip members with three key financial management skills. Saving for a purpose:

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Saving to achieve a set purpose by making and following a savings plan and setting aside surplus income to establish a fund to cover costs should an emergency arise. Borrowing wisely: Borrowing responsibly to meet cash needs by accessing loans based on repayment capacity, using loans for the intended purpose, and repaying loans on time. Effective financial management: Managing finances to meet cash needs and save by identifying cashflows throughout the year, establishing financial goals, prioritizing household, and business expenses, and preparing and following a budget.
Support and training in business plan development	X	X	**Target Clients:** PW who are SILC members. **Intervention Details:** Following the successful completion of financial literacy training and all technical and business/marketing trainings on the livelihoods checklist, the Development Agents (DAs), Livelihood Extension Workers (LEW), supervisor / coordinator will certify that a client has successfully completed the livelihoods checklist. DAs and LEWs will then assist clients in developing business plans. This business plan will follow the format provided in this Manual and will include the following sections: • Names of participating clients within the household and profile. • Selected livelihood. • Certification of completed livelihoods checklist. • Labor utilization plan. • Input and technology requirement. • Credit or livelihoods transfer requirement. • Production plan. • Marketing plan. • Planned financial flow. • Expected revenue by quarter. • Expected expenditures by quarter Simple sensitivity analysis. • Loan repayment plan (for credit referral clients only). • Declaration, signed by each client. Business plans will be developed at the individual level rather than the household level but will be linked via the Household PSNP Client ID Number and updated in the Management Information System (MIS).

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Expected Outcomes: • To guide clients towards productive and profitable livelihood investments, by helping the client think through how they will earn an income, how they will manage their cash flow, and how they will repay his or her loan. Therefore, it is critical that client's/household representatives (spouse, youth) be directly involved in the development of their business plan and that they understand all the information that it contains. • To help clients / households better understand the basics of business planning and management. • To help the client obtain financing for a specific livelihood investment.
Life skill training		X	**Target Clients:** PW who are SILC members mainly youth. **Intervention Details:** CRS will provide training on life skills using a standard curriculum. Topics include the development of body awareness, critical consciousness, positive self-worth and parenting, inter-personal communication skills, goal setting and conflict prevention. **Expected Outcomes:** This will improve agency and assets, includes family, peer, and community engagement to engender support, healthy relationships, and a sense of belonging and contribution to increasing household well-being and income. Youth will gain and strengthen life skills during key life stages (15–19, 20–24 and 25–29) such as the development of body awareness, critical consciousness, positive self-worth and parenting, inter-personal communication skills, goal setting and conflict prevention.
On-farm Livelihoods pathway	X	X	**Target Clients:** PW households, 75% of SILC members. **Intervention Details:** Potential crop and livestock pathway selection, provide technical training to clients who selected the pathways and increase production and productivity. The selection criteria include youth and gender inclusive, nutrition dense, climate smart, food security, and high market value. *Ifaa* proposed 75% of SILC will select the on-farm pathway. CRS will then use the lead herder and lead farmer extension model to transfer technology to the clients and support them on the respective pathways.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Expected Outcome: Increased production and productivity of selected commodities. In turn this will help increase household income and diversify livelihoods.
Off-farm Livelihoods Pathway	X	X	**Target clients:** 20% of SILC group members. **Intervention Details:** *Ifaa* will support 20% of SILC group target clients to choose among different off farm opportunities in their area to diversify their livelihood income. Detail list of off farm opportunities will be included after the assessment. Off-farm pathways will emphasize new opportunities for youth, including community animal health workers (CAHW), toilet makers, agro-dealer agents, FAs/PSPs, agricultural processing, and water operators. Given the lower interest in off-farm opportunities to date, CRS will assess barriers, examine profitability, and learn more about how to encourage interest. **Expected Outcome:** Increased access to income, diversified livelihoods.
Wage Employment Pathway	X	X	**Target Clients:** 5% of SILC group. **Intervention Details:** Support 5% of SILC group target clients to choose among different wage employment opportunities in their area to diversify their livelihood income. Detail list of the wage employment opportunities will be included after the assessment. Provide training on Youth Employability Skills (YES) curriculum and coaching and mentoring. *Ifaa* will also work with public and private enterprises or employment agencies to gainfully employed. *Ifaa* will also provide support to GoE One-Stop Centers. **Outcome:** Increased employment, livelihood diversification, increased income, increase household assets.
Climate smart agriculture practices promotion through LH/LF-FF		X	**Target Audience:** SILC members who participate in on-farm pathway. **Intervention Detail:** Fundamental to CRS' strategy is the understanding that IWM+ is critical for improving rainfed agriculture productivity, and CRS will implement its proven Climate-Smart/Water-Smart Agriculture platform within the context of green water, which emphasizes soil as a water resource. Because the dynamics of soil and water are not limited to plots or farms, the approach requires that agriculture development shifts from plot to farm and landscape scale. *Ifaa* will identify and organize LF/LH groups;

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			under each LF/LH groups organize FF, implement demonstration on LF/LH plots and Farmer and Pastoral Training Centers (FTC/PTC); organize monthly meetings among LF and FF and quarterly meetings among LF/LH at FTC/PTC. **Outcome:** Improving rainfed agriculture productivity, in-crease vegetative production-building natural capital to improve people's lives—with a focus on water productivity at the farm and landscape scales by reducing degrading activities.
Technical training on selected pathways	X	X	**Target:** All SILC members. **Intervention Details:** The livelihoods component includes technical training and complementary livelihoods interventions in three pathways: crop and livestock, off-farm, and wage employment. DAs and Woreda Subject Matter Specialists will provide a series of technical trainings to clients on their selected livelihood. The programme will systematize some of the technical training protocols developed by the Extension Service and the Livestock Development Sector into a robust training course for participants. Lists of required trainings will be tailored to the product / business plans and the livelihood investment planned by the household and will be included in the Livelihoods Guidelines. *Ifaa* will provide technical training on crop and livestock for government staff, technical partner staff, frontline extension workers (DA, LEW) and clients who selected the on-farm pathways. Technical trainings will be substantial and will be provided at FTCs or PTC and/or at the homes of model farmers where possible to facilitate practical knowledge sharing and learning-by-doing. Linkages with research institutes will be promoted where feasible, in coordination with the Climate Smart Initiative. It is expected that technical trainings be provided for a total of at least 10–20 hours over the course of 4–12 weeks, depending on the type of livelihood pathways chosen by the client. **Outcome:** to enable clients to effectively participate in their selected pathways.
Producers marketing groups		X	**Target clients:** 20% of on-farm pathway SILC members. **Intervention Details:** Target and organize in producer marketing groups, organize training on production and

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			marketing of selected commodities; facilitate linkage with financial service providers, buyers, and input suppliers. **Outcome:** Improve marketing skills for producers who participate in value chain activities, increase sale of value chain commodities.
Seven steps of marketing training		X	**Target Audience:** SILC member who select on-farm and off-farm pathways. **Intervention Details:** *Ifaa* will use CRS's seven steps of marketing guide which focuses on the practical aspects of linking vulnerable farmers with markets. The guide is the second part of the marketing skill set. The first part, marketing basics should be consulted prior to reviewing this guide. The marketing approach of this guide focuses on the needs of poor farmers. The aim is to ensure that farmers produce sufficient food crops for their household needs and improve income through sales of surplus produce at local and regional markets. The principles can also be used for helping to link farmers to higher value markets including national and export markets. The types of farmers targeted in this guide typically produce on farms of two to five acres (1–2 hectares) of land. Typically, at the start of an upgrading process, farmers will not own mechanized tools, use limited inputs, are not well organized, have no savings schemes or links to formal financial lenders, and for the most part have opportunistic trading relationships with buyers. *Ifaa* will provide advanced technical training on marketing to the established PMGs on on-farm and off-farm. The seven steps of marketing curriculum comprise of the following: 1. Getting organized, 2. Identifying products and organizing groups, 3. Collecting information for the business plan, 4. Building a business plan, 5. Marketing as a group, 6. Reviewing agro-enterprise performance, and 7. Scaling up. **Outcome:** Increase sale of value chain commodities and participation on markets.
Business and marketing skills training	X	X	**Target Audience:** All SILC members. **Intervention Details:** In addition to technical trainings, clients will receive a series of business skills and marketing trainings tailored to their selected livelihood. These trainings will be provided by Woreda Subject Matter Specialists, Cooperative Promotion Officers or Marketing Agency Specialists and should be developed in such way that it

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention

			would be sensitive to adults, women, and youth. Topics may cover:
			• Calculating input costs (building on initial training provided during the financial literacy sessions).
			• Marketing and market facilitation topics, e.g.:
			  ○ Where to find markets.
			  ○ Optimal marketing timing.
			  ○ The advantages and disadvantages of collective marketing (based on product).
			• Simple risk / sensitivity analysis.
			Outcome: increase sale of value chain commodities and participation on markets. This will also help clients to develop their business plans.

Access to Finance—Formal financial linkage (Credit track)	X	X	**Target:** 70% of AgEL clients who selected on farm and off farm pathway. **Intervention Description:** 70% of AgEL clients who selected on farm and off farm pathway will be linked to financial service providers (banks, MFI and RuSACCOs). Clients will take their completed checklist and business plan to FSPs, including MFIs (government and non-governmental organization (NGO) supported / parastatals and private) and RuSACCOs, to access loans. Where necessary, credit committees will provide financial institutions with lists of clients whose business plans are reviewed and passed viability check. DAs will also provide additional support to clients in liaising them with financial institutions with their business plans, as needed particularly for clients who have little experience with credit but did not qualify for a livelihoods transfer. If one client finishes their checklist before another household member, that client can be referred for financing. When the FSP has a group collateral requirement the client will have to wait for the group to finish their checklist. Where credit life insurance available, clients will also be referred to this service. Credit availability from both Finance Service Providers and RuSACCOs will be gauged each year during the planning stage. FSPs and RuSACCOs will benefit from conditional capacity building under the programme, subject to the conditions outlined in the section above. (However, if there is a credit constraint following the completion and referral of

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention

			business plans, the programme may recommend that women and youth be prioritized, subject to the review and approval processes of financial institutions.)
			
			Conditional capacity building of RuSACCOs. The programme will build the capacity of these RuSACCOs to encourage savings and provide services to their members.
			
			PSNP capacity building support to RuSACCOs will include:
			• Technical assistance, e.g., training of RUSACCO leadership and technical assistance on financial product development and linkages to MFIs as appropriate.
			• Matching funds (e.g., up to 25%) for building construction and safe boxes.
			• Matching funds for bookkeepers for 1–2 years.
			
			Conditional capacity building of FSPs. The program will provide conditional capacity building of FSPs—including private MFIs—and encourage clients to open individual savings accounts at FSPs where available.
			
			PSNP capacity building support will vary depending on the size and needs of the FSPs, but may include:
			• The development of financial products that are acceptable to Muslim clients (i.e., Sharia compliant).
			• Staff training.
			• Programme support costs, e.g., for the provision of financial literacy training to PSNP clients and creation of linkages with RuSACCOs.
			• For FSPs that open a sub-branch in PSNP kebeles:
			  ○ Transport.
			  ○ Matching funds for office furniture.
			  ○ Matching funds for hardware materials.
			
			Outcome: this will help to ensure adequate credit availability at the time of referral.

Livelihood transfer track ($300)	X	X	**Target Participants:** 30% of PW households. **Intervention details:** Within the PW beneficiary households, the bottom 30% of the poorest households are eligible for selection in the LH transfer track. The amount of livelihoods transfer is USD 300 equivalent amount in Birr using the agreed exchange rate at the beginning of the budget year (July).

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Outcome: Access finance, increased participation in selected pathways.
Credit guarantee fund (conditional capacity building)		X	**Target Participants:** Financial service providers (MFI/RuSACCOs). **Intervention details:** Selected financial service providers (MFI/RuSACCOs) will be provided with guarantee fund and conditional capacity building support to facilitate loan provision to 70% AgEL clients. **Outcome:** this will help to ensure adequate credit availability at the time of referral, increase access to finance.
Value chain financing co-investment		X	**Target Participants:** Private sector firms. **Intervention details:** *Ifaa* will provide co-investment with private sectors who are interested to invest in crop, livestock and off farm businesses which will help farmers to access inputs and sell their output products through the private sectors. This is based on the value chain/market system assessment finding and recommendations. **Outcome:** this will help to ensure adequate credit availability at the time of referral, increase access to finance, Enhanced input, and output market system.
Youth fund ($250)		X	**Target Participants:** 20% of youth participating in on-farm and off-farm pathways. **Intervention details:** 20 % of targeted youth will be eligible for a livelihood grant in the amount of $250. *Ifaa* will prioritize these clients to start them on their path for asset accumulation. *Ifaa* will select and train most vulnerable and volunteer youth and provide fund ($250) for startup capital. **Outcome:** Asset accumulation, youth participation in selected pathways.
Technical support and follow up (coach and mentor)	X	X	**Target Participants:** All SILC members. **Intervention details:** Follow-up support includes facilitation of access to inputs and linkages to markets as needed and coaching and mentoring of clients. This support should continue on an intensive basis through the end of the first year after the client has started participating in livelihoods interventions, or through the end of the second year for livelihoods transfer clients. For the employment pathway, this will be the employment linkages phase.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Outcome: To ensure clients effectively implement activities within their selected pathways.
PW livelihoods linkage (e.g., Area closure)	X	X	**Target Participants:** All SILC members. **Intervention details:** linkage of PW interventions contribute to target client's livelihood improvement through creating income generation opportunity. *Ifaa* will ensure that PW respond to PSNP client needs through deliberate linkages of community assets with RFSA activities—for example, ensuring integration between PW and livelihoods, including social service delivery. **Outcome:** PW responds to PSNP client livelihoods needs.
Private Sector Engagement (Agro-dealers, SILC PSP, CAHWs & Private veterinary pharmacist)		X	**Target Participants: Private Sector Individuals or firms working in *Ifaa* operational kebeles.** **Intervention Detail:** *Ifaa* will select potential agricultural inputs supplier and engage in output market linkages. *Ifaa* will select potential PSPs for agro-dealer and link PSPs with existing agro-dealers to facilitate last mile input supply. *Ifaa* will select and organize practical training to CAHWs to provide animal health services at respective kebeles where there is limited veterinary services. Create linkage with private veterinary pharmacist to provide livestock vaccination and treatment services to improve livestock health. **Outcome:** Increased access to inputs and markets for PSNP clients.
Gender youth and social dynamics			
Implementation of PIM Gender provisions: Monitoring implementation of PIM gender provisions (e.g., exemption of PLW until the child is 2 years, HHs without able-bodied labor in their house (i.e., have young children only provide her share of the household labor;	X	X	**Target Clients:** Women who pregnant, lactating mothers; FHH. **Intervention details:** *Ifaa* will implement and monitoring implementation of PIM gender provisions (e.g., exemption of PLW until the child is 2 years, FHHs without able-bodied labor in their house (i.e., have young children only provide her share of the household labor; Women will work 50% fewer hours on PW than men; Women will be assigned to light works. Construction of day care centers). **Expected Outcomes:** Increased capacity PSNP structures and increased women participation at different levels. Moreover, better nutrition and health for children under 5.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
Women will work 50% fewer hours PWs than men; Women will be assigned to light works. Construction of day care centers)			
Monitoring implementation of GBV action plan included in the PSNP 5 (e.g., The program Grievance Redress Mechanism supporting to accept appeals related to GBV and refer to locally available GBV response services)	X	X	**Target Clients:** Women, young women, girls, and boys. **Intervention Details:** *Ifaa* will establish and strengthen the GBV referral system (Kebele GBV committees, Woreda GBV service providers, one stop center) This includes Capacity building of GBV service providers, communities, survivors etc. **Expected Outcome:** Reduced gender-based violence, increased participation in leadership and decision making of women and men in community initiatives.
Leadership training for women and youth in leadership position		X	**Target:** Women, youth and PWD who have leadership positions in different structures. **Intervention Details:** Leadership capacity development for Women, Youth & PWD who are in Leadership Position in various *Ifaa* established and community structures. In *Ifaa*, based on woreda needs and not ignoring WFSTF/KFSTF, Center for Creative Leadership will expand *Leadership Essentials* to the newly revitalized Community Food Security Task Forces to increase their ability to advocate for all community members, based on an inclusive visioning process. **Expected Outcome**: Increased participation of women youth and PWD in leadership positions and community initiatives.
Community Conversation for Adults and Youth		X	**Target:** Community representatives (women, men, youth, community leaders, frontline gov't workers including DAs, Health Extension Workers (HEW), and teachers). **Intervention details:** Communities organized and engaged in dialogue and discussion on issues that affect their lives. Community Conversations are inclusive community-level discussions led by community-based facilitators who support and reinforce household-level behavior change; they serve as a secondary adoption tool, reaching diverse PSNP and non-PSNP clients.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Expected Outcome: Address gender and social norms, increase social cohesion.
The Faithful House/Islamic Families Life		X	***Target:*** *Couples.* ***Intervention details:*** *Ifaa* will enhance the knowledge and skills of IPs, government staff and community representatives to facilitate SBC among project participants and ensure that both male and female participants understand gender equity and women/girls' empowerment to be a benefit to all. The Faithful House/Islamic Family Life engages couples to develop and practice critical reflection, dialogue and joint decision-making skills that influence selected themes for optimal health, nutrition, and production, including equitable decision-making processes, sharing of assets, resources, and workloads. **Outcome:** Facilitate couple communication and discussion to improve interaction, joint decision making and collaboration amongst family members.
Functional literacy		X	**Target:** It targets women and youth in leadership including in kebele and community FSTFs. **Intervention details:** Select and train women, youth & PWD leaders in functional literacy to enhance their leadership skills and develop confidence to lead their respective groups. **Expected Outcome:** increased participation of women, youth and PWD in leadership positions and community initiatives.
Youth volunteerism		X	**Target:** Youth (15–29) including PWD. **Intervention details:** Youth (including PWD) will also be organized to develop their skills, knowledge, and practices collectively through Youth Livelihood Groups, youth volunteerism opportunities such as Peace Ambassadors, and Youth Community Conversation Groups. To respond to the diverse factors that lead to vulnerability, *Ifaa* will engage with both in-school and out-of-school youth and address the intersectionality of age, gender, and disability. *Ifaa* will support the specific needs of the following groups: • Relatively low vulnerability (nudge toward graduation). • Vulnerable youth (largest *Ifaa* focus toward supporting their graduation).

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			• High vulnerability (emphasis on progressing to a less vulnerable state). Adolescent girls and young women (ages 15–19 and 20–29) will receive focused efforts due to the persistent gender gap to improve their self-esteem and ability to tackle poverty and food insecurity. Targeted activities will layer an adolescent girl and young woman approach onto general livelihoods that focuses on building voice, choice, and control. *Ifaa* will select, organize, train, and deploy youth in volunteer activities to support their communities and gain buy in from the community to maintain positive social dynamic. Youth voluntarism enhances their skill and access employment opportunities. **Expected Outcome:** income opportunities for youth, skill development for youth, increased participation in leadership and community initiatives.
YES curriculum, I am an Entrepreneur		X	**Target:** youth (aged 18–29) **Intervention details:** *Ifaa* will support 20,000 youth to form youth livelihood groups where SILC and *(YES) Training* will strengthen soft skills, entrepreneurial mindsets, financial and digital literacy, and employability skills and will orient them as they select or make progress in their livelihoods pathways. **Expected Outcome:** Youth employment skills development, increased youth employment.
School gender club's curriculum		X	**Target:** School-going youth aged 15–18 **Intervention details:** CRS will also leverage the DFSA1 school gender clubs, led by local teachers, to reach boys and girls aged 11–17 with CCL's girls and boys club toolkit. The toolkit facilitates peer learning around gender equity and harmful traditional practices and provides a safe platform for youth to develop their leadership and life skills. *Ifaa* will establish, train, and provide curriculum to enable boys and girls facilitate discussion on various *Ifaa* program topics and develop their communication and leadership skill. **Expected Outcome:** Youth to develop their communication and leadership skill, increased youth participation in community leadership.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
Trainings on GBV Interventions at various levels using developed curriculum		X	**Target Clients:** Men, women, community leaders, **Intervention details:** CRS will provide 3 days GBV training for men, women, and community leaders using developed curriculum. IPs and government staff/woreda will facilitate the training. **Expected Outcome:** The training expected to raise the knowledge about GBV issues, that will contribute to a reduction of GBV cases in the targeted woredas and improved referral and reporting mechanisms. Participants will play their roles and responsibilities to prevent GBV, responding to GBV reports and supporting GBV committees.
Establishment of GBV committees at kebele level		X	**Target:** Men, Women, community leaders, and Government staff. **Intervention details:** GBV committee will be established at kebele level to facilitate prevention and response mechanism. The trained *Ifaa* formal and informal community leaders, the school community will strengthen kebele GBV committee to work on existing platforms and referral systems. **Expected Outcome:** The GBV committees will serve as a bridge between the community and woreda level GBV prevention and response task forces through information sharing and reporting as per the training they received and terms of reference.
Support to Woreda GBV task force (including linkage with Kebele level committees, material supports)		X	**Target:** Woreda GBV task force. **Intervention details:** Capacity building support will be provided for woreda GBV task force based on identified gaps. In addition, *Ifaa* will explore options with the Office of Women, Children and Youth to establish safehouses under their management. **Expected Outcome:** Strengthen capacity of woreda GBV taskforce and establishment of establishment of GBV survivor's safe house: 3 safehouses in selected 3 woredas will be constructed and furnished with basic equipment and materials.
Male engagement		X	**Target:** Male (youth and adult) PSNP clients.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Intervention details: Select and train male volunteer who are willing to engage and promote transformed social norms. **Outcome:** Increased role of male in tackling gender norms.
Gender champions		X	**Target:** couples and individuals. **Interventions details:** Select and train volunteer couples and individuals who practice & promote positive gender/ social norms. **Tibeb Girls** will target adolescents aged 11–19 with an animated TV, radio series and comic book, featuring three Ethiopian superhero girls guided by enduring values and leading the audience on a journey to fight against the injustice that girls face daily. To ensure engagement with real-life issues, community-based Gender Champions will be featured as superheroes of their community to encourage others to act against gender violence and inequality. Gender Champions (volunteer role models) tackle gender norms, including GBV, within the community to reinforce behavior change at the household level and open space for the elderly, women, and youth to fully participate in community life and livelihoods. In *Ifaa*, these approaches will expand to reach more youth. The Better Well-Being media series and frontline workers across all sectors will echo gender equity, inclusion and social cohesion messages and model desired behaviors. **Outcome:** Increased role of couples and individuals in tackling gender norms.
Social cohesion including youth peace ambassadors (YPA)		X	**Target:** Male and female youths. **Intervention details:** Youth-led Community Conversations will be scaled in *Ifaa* to increase youth perspectives in the community and will be linked to YPAs—a cadre of motivated youth community members who are trained in peacebuilding activities and supported by the program to hold discussions and arrange activities around peace and social cohesion. *Ifaa* will initiate a program engaging 3,128 trained male and female YPAs in peacebuilding, conflict resolution and social cohesion. **Outcome:** Increased social cohesion.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
Dignified Families Approach		X	**Target:** Couples with children, single headed families. **Intervention details:** Dignified family/worthy family is a human training curriculum comprised of fourteen sessions with the purpose of ensuring that families exercise their educational and socializing role more effectively, contributing to strengthen peace and social cohesion. **Outcome:** improved peace and social cohesion.
PSNP Systems			
Provision of **three** food components (wheat, oil, and pulse) to PDS and PW clients—to meet the daily food kilo/calorie requirement.	X	X	**Target:** All PSPN households and 5% contingency clients. **Intervention details:** Three food components (wheat, pulse and veg, oil) is provided to PW, TDS, and PDS clients as per the PSNP transfer schedule to meet the food need of these clients. Accordingly, PDS clients receive food for a period of 6 months starting from January. PW clients receive food for 3 months starting from April. **Outcome:** Consumption smoothed.
FSTF Capacity Building (woreda, kebele, community level)	X	X	**Target:** FSTF members at woreda, kebele, community level. **Intervention Details:** Various operational, functional, and technical trainings are provided to FSTF members at regional, zone, woreda, kebele and community levels. The training includes: Leadership & Communication Essential, multi-year planning, PSNP5 PIM, Rural Payroll and Attendance Sheet Sustem, etc. Outcome: Improved PSNP PIM implementation.
Private sector engagement: transportation of food from PDP to FDP	X	X	**Target Participants:** Private sector actors including firms and individuals. **Intervention details:** CRS will be transporting PW and PDS food from Dire Dawa to FDPs using private transporters through bid process. **Outcome:** Improved timeliness of transfer and quality of Social and economic infrastructure.
Strengthen KFSTF as well as establishing and supporting an inclusive and participatory CTCF to facilitate community visioning and inclusive		X	**Target participants:** FSTF (Kebele, and community and CTCF). **Intervention details:** Mobilize, establish, train, and strengthen CTCF to facilitate community visioning and inclusive kebele development plan. Hold community visioning sessions.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
kebele development plan			**Outcome:** Improved GoE service delivery, increased accountability, improved planning, and implementation of community initiatives.
FSTFs capacity building specifically focusing on L & C Essential training in addition to the basic FSTF capacity building		X	**Target participants:** FSTF (Kebele, and community and CTCF). **Intervention details:** Strengthen the leadership and communication capacity of FSTF structures beginning from Region to Community level. CCL built the capacity of K/WFTSF members in leadership, communication, and management skills to support development of a case management system to help PSNP clients navigate services to meet needs and limit problems arising from fragmentation of services, staff turnover and poor coordination. **Outcome:** Improved GoE service delivery, improved planning and implementation of community initiatives, improved management of staff turnover.
Private sector—Construction of SEIs		X	**Target Participants:** Private sector actors including firms and individuals. **Intervention details:** Construction of SEIs infrastructures is carried out using capital and administrative budget allocated by RFSA. These infrastructures are planned in the woreda annual PSNP plans prepared by FSTFs. The infrastructures include human & animal health posts, additional school classrooms, small scale irrigation, water development projects, DA & HEW residences, FTC, etc. **Outcome:** Improved economic and social services are achieved when good quality construction is done.
Health and Nutrition			
Linkage to services (Ensuring transfers for TDS supporting TDS PW clients to attend PW SBC sessions, and other Health and Nutrition services like ANC, growth monitoring, immunizations, etc.)	X	X	**Target clients:** Pregnant mothers, mothers/care with children under 1 year, mothers/care with severe acute malnutrition (SAM) children. **Intervention Details:** The TDS clients will be assured of accessing the necessary transfer, and need to attend SBC sessions, and other health and nutrition services. **Expected outcome:** The TDS get necessary transfer; they attend SBC sessions and be referred to all other Health and Nutrition services at the HFs and outreaches.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
Capacity building training for government and partner staffs- Adolescent nutrition, CMAM, RLs materials.	X	X	**Target clients:** Partners, Zonal sectors, Woreda sectors, Health facilities, schools, and community volunteers. **Intervention Details:** Series of different level trainings on Adolescent nutrition, CMAM, Religious Leaders mobilizations, Care Group Model, Food preservations, Nutrition budgeting, Integrated Management of Newborn & Childhood Illnesses (IMNCI), Health Extension Programmes (HEPs), etc. **Expected outcome:** Participants acquire required knowledge and skills around the mentioned training topics/areas.
GoE basic health extension program	X	X	**Target clients:** The whole community/HHs living in the Kebele. **Intervention Details:** Implementation of 18 government (Ministry of Health) HEP packages. **Expected outcome:** Communities improve knowledge and skills around feeding practice, hygiene and sanitation, increased service demands, improved Immunization coverage, improved ANC/PNC coverage, etc.
GoE supportive supervision coaching	X	X	**Target clients:** Woreda Health office staffs, Health facility (Health centers and Health Posts) workers, schools, community volunteers, Nutrition technical committees. **Intervention Details:** Conducting Joint supportive supervisions, and coaching. Technical support around key Health and Nutrition intervention areas, counseling, on the job trainings, support documentations, motivations, review meetings, etc. **Expected outcome:** Improved knowledge, skills, commitment; and improved quality of overall Health and nutrition services.
GoE led community SBC sessions (expected to be held monthly targeting temporary direct support clients).	X		**Target clients:** Pregnant mothers, mothers/care with children under 1 year, mothers/care with SAM children. **Intervention Details:** PW SBC session runs, the TDS clients will be assured of accessing the necessary transfer, and need to attend SBC sessions, and other Health and nutrition Services. **Expected outcome:** The TDS get necessary transfer; they attend SBC sessions and be referred to all other Health and Nutrition services at the HFs and outreaches.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
Additional health extension programs (includes remote trainings, lead parents, motivation of health development armies)		X	**Target clients:** HEWs, CG promotors, lead parents, HDA and other volunteers. **Intervention Details:** Motivation, training of CG promotors, lead parents, HDAs and other volunteers on: Adolescent nutrition, CMAM, Care Group Model, Food preservations, Nutrition budgeting, IMNCI, HEPs, etc. **Expected outcome:** Target targeted clients (HEWs, CG promotors, lead parents, HDAs and other volunteers) will improve motivation, improve their knowledge and skills around listed interventions.
System strengthening through the capacity building and provision of materials (referral pads, formats, reg. books, SC materials, etc.)		X	**Target clients:** Sectors, institutions communities and respective staffs. **Intervention Details:** Provision of capacity building trainings listed above, and supply of other materials based on Identified gaps. **Expected outcome:** Sectors, institutions, and their staffs in RFSA Woreda improve system functionality and enhanced by the quality service rendered through capacitated staffs.
CRS Enhanced SBC (those interactive SBC tools like Speaking books, child Nutrition cards, CGM modules related counseling cards, ATK Communication Materials and other reinforcing messages embedded in CMAM/ IYCF materials, etc.)		X	**Target clients:** Children under 5, PLWs, Caregivers, Adolescents, first time mothers, and other community members as a secondary contact. **Intervention Details:** Enhanced SBC materials—Community-Based Complementary feeding and learning sessions (CCFLS), Child Nutrition Cards, speaking books, Other Essential Nutrition and Hygiene Actions (ENA/EHA) related SBCs, and similar user-friendly SBC tool that will help HEWs to deliver key messaging to illiterate populations. **Expected outcome:** Knowledge and skill increase, behavioral change.
Audio toolkit communication material on nutrition, harmful traditional practices			**Target clients:** HEWs, DA Community Animators, Teachers, and Volunteers. **Intervention Details:** CCL audio toolkits uses radio drama and a narrator with questions to facilitate group learning around a picture-based guidebook. The focus areas of the program may integrate issues such as gender roles, decision making social issues e.g., child marriage, healthcare, GBV, community engagement focus on women and youth, leadership, communication, nutrition and raise awareness of

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			community roles and responsibilities, sustainable use of water and infant feeding practices etc. **Expected outcome:** Enhance a community culture of collaborative learning around health and nutrition through sharing owns experience.
CGM approach		X	**Target clients:** Children under 5, PLWs, Adolescent girls, Care givers, First time mothers. **Intervention Details:** Rollout of the CGM approach through the MOH structure and further to HHs: *Ifaa* will improve the quality and coverage of health education and counseling through the proven Care Group model to build mothers' nutrition knowledge and skills around optimal nutrition and IYCF. The Care Group Model builds teams of volunteer Lead Parents who conduct trainings in each household to improve coverage. Each volunteer regularly visits 10–15 neighbors, sharing learning and facilitating behavior change at the household level. **Expected outcome:** Key Health, Nutrition and Hygiene behaviors (through improved knowledge and skills) promoted and eventually changed.
Adolescent nutrition — School clubs		X	**Target clients:** Health professionals, education offices, teachers, school communities, Health extension workers and club leaders. **Intervention Details:** Series of trainings for education offices, teachers, school communities, Health extension workers and club leaders using the Adolescent nutrition manuals/materials. Implementation of adolescent nutrition in targeted schools (schools' nutrition clubs). **Expected outcome:** Improved knowledge and practice of the target group and their community on adolescent nutrition, with focus on all forms of malnutrition and life skills required for adolescents to make health related choices.
Religious leaders' mobilization and training on prioritizing PLW, CU5 and adolescents during fasting, etc.		X	**Target clients:** Religious leaders, traditional leaders, religious institution members. **Intervention Details:** Training and mobilization of religious leaders (RLs), traditional leaders, religious institution members using the RL mobilization guides; then, the RLs pass Health/nutrition related messages using religious

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			platforms to provide sample messages that religious leaders can share with your congregations at any gathering. **Expected outcome:** Built healthy, loving families and strong communities that practice good nutrition to its own families through availing diversified food.
Labor and time saving technologies for mothers & care givers		X	**Target clients:** Mothers, caregivers, and men. **Intervention Details:** Promotion of Labor and time saving technologies. **Expected outcome:** Mothers and care givers get time to care, feed and clean their children; will also get time to attend health and nutrition services.
Home garden promotion		X	**Target clients:** Households and institutions in RFSA Woredas. **Intervention Details:** Mobilization, establishment and promotion of home gardens (Permagarden, Keyhole garden and other traditional gardens) with Households and institutions of RFSA intervention Kebeles. **Expected outcome:** Households and institutions have home gardens established, use the produce for consumption/ HHs dietary diversifications.
Nutrition budgeting (using seasonal food calendar)		X	**Target clients**: Households, different RFSA Platforms (SILC Groups, CC groups, CCFLS groups, Dignified family/ The Faithful House couples), schools, FTCs, etc. **Intervention Details:** Inclusion and integration of Nutrition budgeting to different platform sessions, and other CRS enhanced SBC materials using the seasonal food calendar. **Expected outcome:** Nutrition budgeting for HH dietary diversity improved in RFSA targeted communities.
Environment and Natural Resource Management			
Integrated watershed management planning and implementation	X	X	**Target clients:** Watershed committees, watershed communities. **Intervention Details:** This will entail planning for watersheds in line with the 2020 Community-based Participatory Watershed and Rangeland Development. The guided covers the following key topics: • Step 1: Getting Started at Woreda level.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			• Step 2: Getting started at community level. • Step 3: Socio-economic and Biophysical Survey. • Step 4: Gender & Social Development (GSD), Nutrition, and Integrated Risk Management. • Step 5: Identification, Prioritization and Safeguards of Interventions that Bring Change. • Step 6: Getting the interventions approved by the general assembly. • Step 7: Organizing watershed/rangeland intervention plan. • Step 8: Implementation Strategies. **Expected outcome:** Planning, construction and management of community assets improved.
Train community members in planning, implementation and sustaining community assets	X	X	**Target clients:** Watershed committees, PW foremen/women and watershed community members. **Intervention Details:** This will be training of communities using the 2020 Community-based Participatory Watershed and Rangeland Development guideline. The training will be complemented by mentorship session conducted by *Ifaa* and GoE staff. The training focused on planning, technical lay out for foremen/women, and management of the NRM assets. **Expected outcome:** Planning, construction and management of community assets improved.
PW implementation (Biophysical Soil and water conservation interventions)	X	X	**Target clients:** PW clients. **Intervention Details**: *Ifaa* will guide PW implementation in line with the PIM. To ensure work norms and standards for PW implementation, *Ifaa* will support foremen, DAs, community facilitators and woreda experts to provide timely and periodic technical support to the PW activities. *Ifaa* will ensure all gender provisions associated with PW are implemented. *Ifaa* will also work towards ensuring timely payment of PW clients. Specific activities withing this intervention include: • Commodity transfer (cash and food). • Construction of additional FDPs. • Stakeholder engagement (GoE, transporters and other NGOs) and discussions with GoE. • Training of GoE stakeholders on commodity management.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			• Supervision of PW. • Step-by-step implementation of PW in line with the PW PIM annex. **Expected outcome**: Planning, Construction and Management of Community Assets Improved.
Implementation of the Environment and Social Management Framework (ESMF)	X	X	**Target clients:** Community Watershed Teams. **Intervention Details:** *Ifaa* will apply the Implementation of the ESMF In order to avoid or mitigate any undesirable impacts during implementation of PW sub projects and maintain a high level of environmental. This is in line with the community-based participatory watershed and rangeland management guideline. **Expected outcome:** To ensure that environmental management practices are integrated into watershed development planning and implementation activities.
Train GoE staffs on the participatory watershed planning based on the revised watershed guidelines	X	X	**Target clients**: NRM, Gender, Livelihood, WASH, infrastructure, Health, and Nutrition GOE sector officers. **Intervention Details**: Train GoE staffs on the participatory watershed planning with practical demonstration based on the revised community-based Participatory Watershed and Rangeland management guideline. **Expected outcome**: Woreda GOE sustainably engage and technically support the community in planning, implementation, and sustainability of community assets.
Enhance the level of participation of WFSTF and the woreda watershed technical team to participate on community level PW planning process and joint supervision.	X	X	**Target clients**: WFSTF **Intervention Details**: training WFSTF on community visioning, planning and implementation of integrated watershed management and management of community assets **Outcome**: Expected outcome: Woreda GOE sustainably engage in planning, implementation, and sustainability of community assets.
Support watershed management committees to transit to watershed users' cooperatives		X	**Target clients**: Community Watershed Teams. **Intervention Details**: for sustainability, *Ifaa* will support watershed management committees/teams to transition to cooperatives. Specific activities under this will include training, legalizing (establishing cooperatives), developing

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			bylaws, building their capacity through office equipment and material. **Expected outcome**: Planning, Construction and Management of Community Assets Improved.
IWM+: merging IWM (to develop, restore, and protect degraded water, soil, and land resources) and IWRM (water supply, risk management) and Water Benefits Calculator)		X	**Target clients**: Community Watershed Teams, watershed community members. **Intervention Details:** IWM+: is an approach integrating difference disciplines (all sectors) and application of **Water Benefits Calculator** (decision making tool) and source water protection/water safety plan for planning and implementation of integrated watershed management. IWM+ fills in the planning gaps that exist within the GoE's guidelines/frameworks and pulls together the pieces and combines disconnected activities. **Expected outcome:** planning, construction and management of community assets improved.
WASH			
Water development, monitoring, and governance	X	X	**Target clients:** All Clients. **Intervention Details:** One of the outputs in the PIM is linkages to available social services facilitated for core PSNP clients. Even though creation or development of the social services is not the role and realistic mandate of the PSNP Program, *Ifaa* will advocate the woreda FSTF to prioritize water infrastructure development during their annual plan preparation coupled with technical support and back up during the design preparation, infrastructure development, training of WASH Community Organizations (WASHCOs) linking WASHCOs with private sectors for better operation and maintenance and provision of basic tools to the WASHCOs. In addition, *Ifaa* directly develop Water infrastructures in response to water stress resulted by draught shocks, very high demand and overcrowded water sources that may lead communities to migration, travel very long distance, conflicts arouse because of scarcity. To sustain the developed water infrastructures, *Ifaa* give emphasis to build the capacity of user community through their WASHCOs to ensure good governance and sustainable service delivery of those facilities. It links up the WASHCOs with spare part suppliers in nearby market, train and capacitate private operators interested in Operations &

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Management business, facilitate enhance linkage between WASHCOs and GoE office for frequent follow up and response on maintenance needs, support them set and collect appropriate tariff, install service monitoring remote sensing technology for immediate maintenance need reporting and action. **Expected outcome:** To provide safe and quality water for participants by developing the water supply schemes. Monitor functionality of the schemes to provide safe, clean, and sustainable water supply to the participants all the time.
Community Led Total Sanitation and Hygiene (CLTSH)		X	**Target clients**: All HHs. **Intervention Details:** CLTSH has three steps = pre-triggering, triggering and post triggering follow up and verification to reach to the result Open Defecation Free (ODF) community or Kebele. At the entry point *Ifaa* target kebeles are found at different level of these steps and the intervention varies depending on the where the Kebeles status is. After profiling of the Kebeles done, *Ifaa* will do all the steps in Kebeles there is no triggering happened before, make post-triggering follow up, verification then ODF certification in kebeles where triggering happened but not follow up; Verification and ODF certification will be done where triggering and follow up has been done before. **Expected outcome:** To improve hygiene and sanitation practices and prevent communicable diseases in the community by using an improved sanitation facilities properly and Kebeles become Open Defecation Free (ODF).
Market Based Sanitation and Hygiene		X	**Target clients:** All HHs. **Intervention Details:** Based on Ministry of Health National Market Based sanitation (MBS) Guideline, *Ifaa* will identify and select Masons in target Kebeles, provide them technical training on production and construction of improved toilet technologies, provide them necessary construction and manufacturing tools, provide them start-up fund through revolving fund and link-up with financial service providers, provide them business development service such as mentoring, certifying, business plan preparation, business to business linkage with other private sectors and suppliers of inputs, demand creation and promotion to create encouraging demand for their products and services through CLTSH and other SBC activities.

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			Expected outcome: To avail different types of sanitation and hygiene products & services through private sectors to improve sustainable hygiene and sanitation practices and for the improved healthy life of the project targeted communities
Private sector engagement		X	**Target clients:** Private sectors—producers, skilled individuals in Kebeles, input suppliers, retailers. **Intervention Details:** This activity includes engaging and supporting private sector in WASH related businesses. These includes sanitation, water schemes operation and maintenance, water treatment chemicals and filter suppliers. The support includes training, financial linkage, linkage between the businesses and users, linkage with government sector offices for business development support and technology improvement. **Expected outcome:** Ensuring sustainable supply of WASH products and services. Engagement of the private sector in providing & supplying different types of sanitation products & services for MBS intervention. Construction and maintenance of the water schemes, sanitation facilities, etc.
Ensuring water quality and safety		X	**Target clients**: All clients. **Intervention Details**: *Ifaa* will use USAID BHA approved Water Quality Assurance guideline to monitor water quality of all protected water sources in the target kebeles by testing the minimum water quality parameters. Also, a preventive water safety planning implemented before drinking water sources polluted. The water quality tested by government laboratory (Chemical and Physical parameters) and by portable testing kit by project staffs (biological). **Expected outcome**: the safety of all BHA funded drinking water sources are ensured before consumption. **Outcome:** To provide clean and safe water to participants by conducting a regular water quality test and by making the required treatment if required and through preventive water safety planning.
School WASH		X	**Target clients**: Directly students and indirectly their families **Intervention Details**: teachers will be given a training of trainers training on CHAST and other School SBC techniques, the teachers form WASH clubs and cascade the training to

Interventions	Basic PSNP	*Ifaa* Enhanced	Summary of the intervention
			the club members and the club members further cascade the lessons to the rest of students through different schedules. *Ifaa* also expects a second-generation influence on overall hygiene and sanitation practices of the Kebele through Child—parent influence. **Expected outcome**: To improve hygiene and sanitation behavior or practices of the students by providing training on CHAST and conducting regular monitoring as it is a best channel to reach the community.
WASH system strengthening		X	**Target**: Institutions—Woreda WASH Team (The WASH National program Structure), Private sectors, WASHCOs, Financial service providers. **Intervention**: The WASH systems strengthening approach helps RFSA to see where a failure in one or more of the building blocks is causing a failure in service delivery. By assessing the status of important WASH system building block and identify which of them has the greatest potential to improve the woredas current situation, and the linkages between them, RFSA can identify weak points and target their interventions for greater effect. The activities include training of relevant GOE WASH sector experts, updating the woreda strategic plan and preparing the woreda WASH road map. **Outcome:** Sustainable WASH Service delivery in target woreda and community.

ANNEX C: LIST OF KEBELES WITH TREATMENT ASSIGNMENT AND LIVELIHOOD STATUS

Table 12. Impact evaluation kebeles with treatment and livelihood status

Woreda	Kebele	Treatment	Livelihood
Babile	Abdibuchi	Control	X
Babile	Abdulqadir	Control	X
Babile	Bishan babile	Control	X
Babile	Erer guda	Treated	X
Babile	Gambela	Treated	X
Babile	Gemechu	Control	
Babile	Ibada gemechu	Treated	X
Babile	Ifa	Control	
Babile	Jalale	Control	
Babile	Lekolo	Treated	
Babile	Nejata gemechis	Treated	X
Babile	Shek husen	Treated	
Babile	Tofiq	Treated	
Babile	Tuluhoro	Treated	
Chinaksan	Amola	Treated	X
Chinaksan	Baduelemo	Treated	X
Chinaksan	Biftuu waree	Treated	
Chinaksan	Chelchale	Control	
Chinaksan	Dawe kora	Treated	X
Chinaksan	Dembesele	Treated	X
Chinaksan	Gela	Treated	
Chinaksan	Golewachu	Control	X
Chinaksan	Kaleroga	Treated	
Chinaksan	Kobobika	Control	
Chinaksan	Kocher	Treated	X
Chinaksan	Merer	Treated	X
Chinaksan	Migira	Control	

Woreda	Kebele	Treatment	Livelihood
Chinaksan	Mudi dawe	Treated	X
Chinaksan	Orda sost	Treated	
Chinaksan	Tiro gudoo	Control	
Chinaksan	Tirosendare	Treated	
Chinaksan	Ulanula	Control	X
Chinaksan	Wachuand	Control	X
Chinaksan	Wachuhulet	Control	
Chinaksan	Yugyug	Control	X
Deder	Burka bereka	Control	
Deder	Burka_geba	Treated	X
Deder	Cheka gemechu	Treated	X
Deder	Chela negeya	Treated	X
Deder	Gegewisa	Treated	
Deder	Golu	Treated	X
Deder	Hake bas	Control	X
Deder	Haremfemekuni	Treated	
Deder	Huffe	Treated	
Deder	Ifebas	Control	X
Deder	Kura deder	Treated	
Deder	Lemen welteha	Treated	
Deder	Mede jalela	Control	X
Deder	Mumicha	Control	
Deder	Nedi gelansedi	Control	
Deder	Oda kebena	Treated	X
Deder	Welteha gudina	Treated	X
Deder	Weltehageba	Control	X
Fedis	Bareda	Control	
Fedis	Bedatu	Control	
Fedis	Belina arba	Control	X
Fedis	Bid borra	Treated	
Fedis	Efitu dada	Treated	

Woreda	Kebele	Treatment	Livelihood
Fedis	Ido baaso	Treated	X
Fedis	Kerensa lencho	Treated	X
Fedis	Kufa bobasa	Control	X
Fedis	Negaya bobasa	Treated	
Fedis	Risiki	Treated	
Fedis	Umer kule	Treated	X
Gursum	Abubeker sadik santala	Control	X
Gursum	Awdal	Treated	X
Gursum	Berite	Treated	
Gursum	Buna	Control	X
Gursum	Buyo negeya	Treated	
Gursum	Day feres	Treated	X
Gursum	Ebsa	Control	
Gursum	Elalemi	Control	X
Gursum	Gara wadaja	Treated	
Gursum	Gefire guda	Treated	
Gursum	Goro siyo	Treated	
Gursum	Harashi	Treated	X
Gursum	Hariro	Control	
Gursum	Kasa oromiya	Treated	X
Gursum	Kebso	Treated	
Gursum	Misira	Control	
Gursum	Negeya	Treated	
Gursum	Oda oromiya	Treated	X
Gursum	Saqabadii	Control	
Jarso	Afgug	Treated	X
Jarso	Ahamadhiroo	Control	X
Jarso	Amen	Treated	
Jarso	Aneno mite	Control	
Jarso	Bedesa	Control	X
Jarso	Burka mete	Control	

Woreda	Kebele	Treatment	Livelihood
Jarso	Chala	Treated	X
Jarso	Debub debelo	Control	
Jarso	Epa jalela	Treated	
Jarso	Gara abdula	Treated	X
Jarso	Gidiya licha	Treated	
Jarso	Melka jebdu	Control	X
Jarso	Oda muda	Treated	
Melka belo	Bifitu negeya	Treated	
Melka belo	Burika negeya	Control	X
Melka belo	Chefe jeneta	Treated	X
Melka belo	Chefe weliteha	Control	X
Melka belo	Daba kenisa	Treated	
Melka belo	Degaya belo	Control	X
Melka belo	Dire qufa	Treated	X
Melka belo	Fule negeya	Control	
Melka belo	Haka mulisi	Control	
Melka belo	Mulisa hakwa	Treated	
Melka belo	Tokuma bilisumu	Control	
Melka belo	Tokuman kane	Treated	
Melka belo	Welikituma bilusuma	Treated	X
Midega tola	Auriji	Control	X
Midega tola	Bilisuma	Treated	X
Midega tola	Biyo waraba	Treated	X
Midega tola	Ibiro musa	Control	
Midega tola	Kerensa	Treated	
Midega tola	Kufa	Control	X
Midega tola	Lencha	Treated	X
Midega tola	Mudibali	Control	X
Midega tola	Mukura	Treated	
Midega tola	Roba	Treated	X
Midega tola	Terkafeta	Control	