IMPACT EVALUATION AND QUANTITATIVE POPULATION-BASED SURVEYS FOR USAID/MALI'S FEED THE FUTURE (FTF) CEREAL VALUE CHAIN (CVC) ACTIVITY

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CEREALS VALUE CHAIN IMPACT EVALUATION INCEPTION REPORT

This document was produced for review by the United States Agency for International Development. It was prepared by the team of experts of IOS Partners Inc., Cultural Practice LLC , IOD PARC , CARI-SARL and AFAR-TCT

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APPROVAL

We, the undersigned acknowledge that we have reviewed the Cereals Value Chain Impact Evaluation Inception Report presented in this document for ***the Impact Evaluation of USAID/Mali's Feed the Future (FTF) Cereal Value Chain (CVC)*** and hereby provide our approval.

Signature: _____ Date: _____

Print Name: _____

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Role: _____

REMARKS AND OBSERVATIONS *(if any)*:

ACKNOWLEDGEMENTS

This document was prepared by the team led by **IOS Partners, Inc.**, an international economic development consultancy firm, together with Cultural Practice LLC (CP), IOD PARC (IOD), CARI-SARL and AFAR-TCT for the **United States Agency for International Development (USAID)/Mali.** This document presents the Cereals Value Chain Impact Evaluation Inception Report and intends to serve as an important planning and coordination tool for the ongoing effort to provide the consulting services for ***Impact Evaluation and Quantitative Population-Based Surveys For USAID/Mali's Feed The Future (FTF) Cereal Value Chain (CVC) Activity.*** The Project has been funded by the USAID.

We would like to express our appreciation for the excellent collaboration and facilitation of project documents and meetings, which we received from **the staff of USAID/Mali, USAID Mali Monitoring and Evaluation Accelerated Economic Growth Team, the Government of Mali, and the ACDI/VOCA team.**

DISCLAIMER

The findings, interpretations, and conclusions expressed in this document are entirely those of the authors and should not be attributed in any manner to the United States Agency for International Development. The United States Agency for International Development does not guarantee the accuracy of the data included in this document nor does it accept responsibility for any consequence of its use.

LIST OF ACRONYMS

AFAR - Action for Rural Education and Self - Promotion
COP -Chief of Party
CP -Cultural Practice
CVC -Cereal Value Chain
DCOP - Deputy Chief of Party
FGDs -Focus group discussions
FTF - Feed the Future
OH- Outcome Harvesting
OM- Outcome Mapping
PBS -Population based surveys
USAID - United States Agency for International Development
ZOI - Zone of Influence

EXECUTIVE SUMMARY

IOS Partners, Inc. is pleased to present to the United States Agency for International Development (USAID)/Mali the Cereals Value Chain Impact Evaluation Inception Report for conducting the Impact Evaluation of USAID/Mali's Feed the Future (FTF) Cereal Value Chain (CVC).

The project will undertake a population based survey in the Feed the Future (FTF) zone of influence which includes an agriculture baseline survey in support of an ongoing impact evaluation for the CVC Activity in accordance with the new USAID Evaluation Policy. We will objectively measure the impact the CVC Activity has on a variety of stakeholders, while helping USAID/Mali better understand the merits and possible shortcomings of the FTF value chain approach in cereals.

The project will help the Mission better understand the extent to which its investments have contributed to increased, broad-based economic growth opportunities and improved food security of the targeted and ancillary beneficiaries. The findings of this agriculture baseline survey will be used to capture the current state of agriculture in the CVC zone of influence as well as a control zone outside the CVC zone of influence allowing for continuing assessment of the effectiveness of USAID's value chain approach as a driver of inclusive economic development.

The purpose of this document is to provide an overview of the activities undertaken during the initial start up reporting period, to summarize what information has already been provided and describe what is still required in order to answer the evaluation questions.

The content of this document will serve as a guide to all parties involved throughout the various stages of the project cycle for conducting the Impact Evaluation of USAID/Mali's Feed the Future (FTF) Cereal Value Chain (CVC).

1. INTRODUCTION

The purpose of **the Cereals Value Chain Impact Evaluation Inception Report** is to provide an overview of the activities undertaken during the startup reporting period, to summarize what information has already been provided and describe what is still required in order to answer the evaluation questions.

The ongoing evaluation of the FTF CVC Activity in Mali is to: a) conduct an impact evaluation; and b) conduct statistically representative population based surveys (PBS) for the indicators in the broader FTF initiative in Mali. The impact evaluation and PBS will provide information and data to support future programmatic decisions and help meet Mali's FTF reporting requirements. This evaluation will capture the value of USAID investments in Mali and assess the effectiveness of USAID's value chain approach as a driver of inclusive economic development, allowing for more effective resource allocation and management decisions.

The CVC projects are designed to foster Inclusive Agriculture Growth and Improved Nutritional Status, especially of Women and Children, mainly by targeting the cereal crops and value chains. Thus, the impact evaluation of the CVC project focuses on changes in income, production and consumption related indicators such as gross margins, crop prices, yields and productivity, purchase of agricultural inputs and adoption of agricultural technology, crop and varietal diversification, and change in on-farm consumption of cereals. These changes are expected to lead to greater food security, better nutrition and improvements in family health.

In addition to indicators measuring improvements in agriculture stemming from CVC interventions, the impact evaluation will focus on food security, nutrition and health indicators to gauge the impact of income changes on household consumption, including spending on education and healthcare. Supplementary indicators on attitudes towards and knowledge of sanitation and nutrition best practices will be used to measure how target populations, in particular women and children, change their behavior as a result of the interventions.

IOS will carry out the impact assessment of the Cereal Value Chain (CVC) project using the most appropriate and efficient evaluation methodology possible designed by international experts in consultation with Mali's most knowledgeable researchers. This includes a careful process of data and information collection, and employs the proper techniques of analysis to assure accurate results reflecting project impacts and changes in higher level indicators.

IOS will provide a neutral and objective monitoring and evaluation role to the CVC Activity Implementer throughout its 5-year implementation period, including the initial baseline, a mid-term evaluation and a final evaluation. The CVC Activity aim is to sustainably reduce poverty and hunger in targeted intervention areas. Per compliance with USAID's Evaluation Policy, and standard evaluation procedures, IOS will ensure a credible counterfactual sampling is provided in order to control for factors outside of the target intervention (the CVC Activity). The evaluation will be quasi-experimental purposefully selecting the

comparison group using matching procedures and in collaboration with our local partners, the implementer and USAID.

IOS will use standard impact evaluation methods, sampling strategies and the commonly used assessment indicators described in the FTF's Indicator Handbook and the USAID Evaluation Policy that take account of the nature of CVC project and the socio-economic and biophysical conditions of Mali and in particular of the Feed the Future (FTF) focus areas. Quantitative and qualitative data gathering techniques will include reviews of program and other relevant documents (including those generated by IICEM in the case of baseline review), interviews, focus groups, direct observations and surveys.

We will also use Outcome Mapping and Harvesting (OM/OH), a method that enables evaluators, grant makers, and managers to identify, formulate, verify, and make sense of outcomes.[1] This tool has been developed over the past nine years and most recently is being introduced for monitoring and evaluating the outcomes of capacity building programs of the World Bank Institute. It also was recognized very recently by UNDP as one of "eleven innovative approaches to monitor and evaluate the performance of public policies, programs and service delivery."[2] Equally important, it is a learning tool that involves the participation of CVC staff and thus potentially can enhance their own ongoing monitoring and outcome-related evaluation capacity, allowing the CVC project to learn from its own implementation experience, obtain timely feedback, and make adjustments in the intervention design."[3]

2. EVALUATION DESIGN AND METHODOLOGY

To evaluate the impact of CVC, we will utilize the best and most feasible methods that are used in evaluating the impact of development projects worldwide including both Quantitative and Qualitative approaches, complemented by the innovative Outcome Harvesting strategy.

Qualitative Approaches

Although the main units of analyses will be households and individual males and females within households, many other value chain actors will benefit from the Project, including producer organizations (including women's organizations), input supply businesses, traders and financial institutions. We will collect information and data to evaluate the impacts of the CVS project on all major actors in the cereals value chain.

A good understanding of the theory of change and conditions holding among value chain actors and the targeted is first derived from qualitative analysis; only then can it be confirmed by the collection and subsequent analysis of quantitative data. Qualitative methods collect information and data that capture the behavior, viewpoints and

[1] For a fuller explanation, please see Ricardo Wilson-Grau and Heather Britt, *Outcome Harvesting,* Ford Foundation, May 2012, http://ow.ly/d65Y1.
[2] Discussion Paper, *Innovations in Monitoring & Evaluation*, prepared for the 3rd International Conference on National Evaluation Capacities, 29 September – 2 October 2013 São Paulo, Brazil, 23 August 2013
[3] USAID/Mali, op.cit.

relationships of and among key actors in change, including targeted beneficiaries themselves and are essential in providing an accurate understanding of the issues as perceived by those directly affected and in guiding the quantitative data collection and analysis. Qualitative techniques include key informant interviews and focus group discussions that targeted households, their organizations and major value chain actors.
Key informant interviews focus on individuals who are well informed about the impact of the project such as leaders of producers' and women's organization, government staff, bankers and MFI managers, input suppliers, assemblers, wholesale traders and processors, people who understand important behaviors and relationships. Guides will be short and well-structured to get at key issues deemed relevant by evaluation team staff and CVC management. However, key informants interviewed must have the latitude to provide information unforeseen ahead of time.

Focus group discussions (FGDs) are key elements of qualitative, providing valuable information that cannot be captured by the key informant interviews.5 FGDs are conducted by a trained moderator among a small group of respondents (generally less than a dozen people per group).

The interview is conducted in an unstructured and natural way so that participants are free to give their ideas on project issues important to them. Participants will be selected based on their personal knowledge of key issues and their ability to communicate. Some groups will be composed solely of women. Data are coded ex post into categories reflecting major themes arising out of the discussions. Topics for proposed for discussion generally do not exceed 3 or 4 main points to keep discussions focused and to avoid excessive demands from participants. The group itself is given the freedom to propose additional topics about which member feel strongly.

Quantitative Approaches

The impact evaluation of USAID/Mali's FTF Cereal Value Chain (CVC) and population based surveys (PBS) for baseline, mid-term and final evaluations will be based on indicators provided by USAID in documents provided and high-level indicators for the FTF initiative. The main units of analyses will be households, with information gathered from the individual household member best informed on particular issues. Thus, both males and females within households will be interviewed with the person most knowledgeable on a given subject providing the responses.

An experimental approach is ideal from a purely statistical point of view but is unattainable and undesirable in the context of a development intervention. Since the subjects in development are people, random assignment to treatment and control groups is both impossible and unethical. Despite this limitation, an impact evaluation employing a quasi-experimental closely approximates the accuracy and discrimination of an experimental approach. Quasi-experimental approaches allow project managers to choose treatment groups based on developmental objectives and practical considerations. Evaluators then identify a control group whose characteristics closely approximate the treatment groups', serving as a counterfactual without raising the ethical issue of withholding treatment. This

counterfactual allows analysis of changes in impacts using statistical analysis without introducing significant bias.

Outcome Mapping/Harvesting

We propose the addition of the Outcome Mapping and Harvesting (OM/OH) methodology which generates information about major project outcomes among targeted communities and identifies the various actors involved in producing them. OM/OH will allow USAID and CVC to take annually corrective actions to enhance positive outcomes (foreseen or not) and to minimize negative outcomes. It will also specify quantitatively and qualitatively the roles of USAID and CVC in influencing outcomes, suggesting ways in which change in directions desired by participants can best be achieved.

3. THE EVALUATION QUESTIONS

The USAID/Mali FTF CVC Activity impact evaluation seeks to address the following questions regarding the performance of the CVC Activity, listed in order of priority:

- How much increase, if any, in target beneficiary income is attributable to CVC Activity interventions?
- Which changes, if any, in nutritional status of target beneficiary women and children is attributable to CVC Activity interventions?
- Have CVC Activity interventions led to economic growth and food security6 for the targeted beneficiaries?
- What types of investments in value chain market-led development resulted in poverty reduction and improved nutrition?
- Which kinds of investments and in which value chain functions have generated increases in income and opportunities for employment?
- Are the economic and food security benefits broadly shared with women, youth and the poor?
- Has the project had an impact on women's empowerment, specifically in terms of agricultural production, decision-making over and access to credit, control over income, leadership in the community, and time use?
- Did benefits from the cereal value chain interventions spill-over into the broader communities in which stakeholders reside, i.e. into other villages within the commune, other communes within the same circle and other circles within the same region?
- Which, if any, benefits resulting from CVC Activity interventions are most likely to be sustainable (i.e., continue in the absence of the project)?

4.0 CVC OBJECTIVES AND CORE INDICATORS

Objective 1: Inclusive Agriculture Growth

Objectives	***Foreseeable Outcomes Required for Desired Impacts***	***Impact Indicators for Surveys & Observation***
Improved Agricultural Productivity	• Farmers decide to adopt new technologies: improved land preparation, higher plant densities, improved seed, fertilizer, approved farm chemicals	• Yield: production per hectare • Total factor productivity • Percent of harvest lost
Expanding Markets and Trade	• Traders now see CVC farmers as dependable producers of high-quality product • Traders offer better prices • Banks/MFIs view CVC farmers as good risks • End-users pay higher prices for quality, volume and lower costs	• Value and Volume of sales • income and profit margin by product and/or service • Value or percent of harvest sold (on farm, local market, exports) • Use of credit for farm input and other services • Transaction cost
Increased Private Sector Investment in Agriculture and Nutrition Related Activities	• Farmers perceive technologies to be profitable and invest in them • Farmers purchase equipment which lowers unit costs and raise gross margins • Small farmers purchase work animals, implements and wagons • Farmers purchase equipment individually or band together to obtain custom services at low cost • Profit-seeking farmers adopt by to GAP to preserve land resources • Farmers perceive GAP and NRM as profitable in short- and long-term	• Agricultural Profits • Gross Margins • Adoption of key technology (seed, fertilizer, practice, etc.) • Chemical use and applied :pesticides, fertilizers • Farm-owned animal traction • Farm-owned machinery (tractor, sprayer, etc.) • Natural resource practices (terrace, biological barrier, mulching) • Knowledge of resource management practices • Sustainable agricultural practices
Increased Resilience of Vulnerable Communities and Households	• Farmers change to GAP • Farmers choose appropriate machinery tools and equipment • Farm incomes rise thru cereal sale	• Average smallholder annual income • Average per capita income • Smallholder net income change (per capita, per household)

Objectives	***Foreseeable Outcomes Required for Desired Impacts***	***Impact Indicators for Surveys & Observation***
	• Families change strategies to increase farm/off-farm income; use cereal bran to feed livestock	

Objective 2: Improved Nutritional Status, Especially of Women and Children

Objectives	***Foreseeable Outcomes Required for Desired Impacts***	Impact Indicators for Improved Nutritional Status, Especially of Women and Children
Increased Resilience of Vulnerable Communities and Households	• Farmers change the mix of on-farm consumption and purchases of grain • Families choose to save more of their income • Families choose to invest more in human capital, social and productive investment	• Value or percent of harvest for home consumption • Saving • Reinvestment of farm income in health, education, nutrition, agriculture, productive investments (shelter, clothing, livestock, land) social investments (weddings, funerals, ceremonies,).
Improved Nutrition Related Behavior	• Families eat more balanced diets • Families choose to invest in safer water • Families invest in better sanitation	• Change in calories, consumption of animal protein vegetables • Change in attitude and knowledge of potable water supply and sanitation system
Increased Utilization of High Impact Services and Healthy Behaviors	• Families invest in farm/businesses • Families invest in child education • Families use water wisely • Families dispose of water safely	• Value of productive assets • Expenditure on social assets • Investment in education (school-age children studying) • Better water management (potable water sources, volume, and disposal of water and solid wastes

5.0 EVALUATION QUESTIONS TABLE

The table below is a guide to ensure that the data collection methods used by IOS Partners will result in a full understanding of the impact of the CVC activities on the target zones.

The initial PBS and agriculture survey to be undertaken June – September 2014 will provide the baseline from which the impact on the evaluation questions will be determined.

As of the date of this inception report, no CVC activities have occurred that would have a direct impact on any of the evaluation questions below.

Table 1: Evaluation questions table

Evaluation Questions	Information Received	Information Missing	Plan to obtain information
How much increase, if any, in target beneficiary income is attributable to CVC Activity interventions?			To be obtained from PBS and agriculture survey June 15-September 15 , 2014
Which changes, if any, in nutritional status of target beneficiary women and children is attributable to CVC Activity interventions?			To be obtained from PBS and agriculture survey June 15-September 15 , 2014
Have CVC Activity interventions led to economic growth and food security6 for the targeted beneficiaries?			To be obtained from PBS and agriculture survey June 15-September 15 , 2014
What types of investments in value chain market-led			To be obtained from PBS and agriculture survey June 15-

Evaluation Questions	Information Received	Information Missing	Plan to obtain information
development resulted in poverty reduction and improved nutrition?			September 15 , 2014
Which kinds of investments and in which value chain functions have generated increases in income and opportunities for employment?			To be obtained from PBS and agriculture survey June 15-September 15 , 2014
Are the economic and food security benefits broadly shared with women, youth and the poor?			To be obtained from PBS and agriculture survey June 15-September 15 , 2014
Has the project had an impact on women's empowerment, specifically in terms of agricultural production, decision-making over and access to credit, control over income, leadership in the community, and time use?			To be obtained from PBS and agriculture survey June 15-September 15 , 2014
Did benefits from the cereal value chain interventions spill-over into the broader communities in which stakeholders reside, i.e. into other villages within the commune, other communes within the same circle and			To be obtained from PBS and agriculture survey June 15-September 15 , 2014

Evaluation Questions	Information Received	Information Missing	Plan to obtain information
other circles within the same region?			
Which, if any, benefits resulting from CVC Activity interventions are most likely to be sustainable (i.e., continue in the absence of the project)?			To be obtained from PBS and agriculture survey June 15-September 15 , 2014

6. DATA COLLECTION METHODS

6.1. BASELINE SURVEY

IOS project staff has worked extensively to prepare the initial PBS survey which must be completed prior to the harvest of the CVC first crop in October to be a true baseline for future evaluations.

The Population Based Survey will include an agriculture baseline module that in total will establish the current state of the households and agriculture within the zone of influence as well as a control zone outside the CVC zone of influence that will allow for accurate measurement of the impacts and results of the CVC project as well as the measurement of indicators toward the achievement of higher level FTF goals.

The Senegal and Ghana FTF PBS are being used and adapted to the Mali environment. These surveys have been applied to 3000 households in Senegal and some 4600 in Ghana. The Ghana agriculture module is being integrated with the INSTAT /World Bank agriculture survey for Mali and will compose module 12 of the PBS survey in Mali. This component is being developed in cooperation with the CVC implementer.

The sample size of the Mali PBS is currently being calculated at 2400 to 3000 households and awaits further analysis and confirmation from IOD Park experts and input from USAID Washington M&E experts.

Both the target and control communes and villages will be decided upon in consultation with the CVC activity for all three years of the project. During sample selection, the evaluation team will design survey instruments and procedures to take into account the Malian context and its special circumstances. The PBS including the agriculture module will be the first main activity of IOS Partners. It will be undertaken during the period May – October 2014 to be completed prior to the crop harvest of the first CVC intervention.

6.2 SAMPLING PROCEDURES

We propose that the sample be drawn to undertake the population based surveys (PBS) for baseline, mid-term and final high-level indicators for the broader FTF initiative in Mali to include the sample that are used to undertake the impact evaluation as a subset.

We will use the matching method to identify the constant control communes with similar characteristics of the selected FTF communes. However after considering the alternatives from where to draw these control villages, including: 1) from villages in non-FTF communes, 2) from those in FTF communes in which CVC has decided not to intervene, or 3) from non-intervention villages in FTF communes where CVC is intervening in some villages but not others. We have decided to implement the first - from villages in non-FTF communes,. This decision was made on consultation with the CVC Activity implementer, with USAID management and technical staff in Mali and DC.

Statistical calculations will determine the representative sample from FTF's Zone of Influence as well as the counterfactual control. In drawing the sample, we will force the inclusion of the requisite number of sample villages from both the treatment and control villages (and households within those villages) to meet requirements for the impact evaluation.

6.3. OUTCOME MAPPING AND HARVESTING

The Outcome Mapping/Harvesting method was inspired by the definition of outcome as a change in the behavior, relationships, actions, activities, policies, or practices of an individual, group, community, organization, or institution.[4] Using OM/OH, the evaluator or harvester gleans information from reports, personal interviews, and other sources to document, first, the changes in a social, actor, and second, how a given project, program or initiative has contributed to outcomes. These outcomes can be succinctly described, commonly in two or three 1-2 sentence paragraphs but must be sufficiently concrete and measurable so that they can be verified.

The OM/OH approach provides an accurate measure of the most significant outcomes in the light of the development objectives influenced by the project. It can also provide other information; for example, documenting how other actors other than the change agent (project implementer) have influenced the outcome. Unforeseen outcomes also are brought to light by this approach, allowing favorable ones to be supported through the modification of some interventions and by better harnessing of efforts of actors in addition to the change agent. Outcomes that detract from project goals or which indicate a lack of alignment between goals of targeted communities and those of the project can be addressed through prompt action by USAID and the implementer in making use of OM/OH findings as the basis for taking corrective measures. Unlike some evaluation methods, OM/OH does not measure progress towards predetermined outcomes or objectives, but rather collects evidence of what has been achieved, and works backward to determine whether and how the project or intervention contributed to the change. In this sense, it is analogous to sciences such as forensics, anthropology, or geology, which interpret events or contributing factors that led to a particular outcome or result by collecting evidence and answering specific questions:

- What happened?
- Who did it (or contributed to it)?
- How do we know this? Is there corroborating evidence?
- Why is this important? What do we do with what we found out?

OM/OH is a tool-of-choice for monitoring and evaluating the CVC project for three reasons:

1. OM/<u>OH focuses on monitoring and learning from results rather than activities</u>. OM/OH is designed for situations where decision makers, or harvest users, are interested in learning

[4] This definition of outcome was developed by the Canadian International Development Research Centre (IDRC) about 10 years ago and is widely used by development and social change programs. See Earl, S., Carden, F., & Smutylo, T. (2001). *Outcome Mapping: Building Learning and Reflection into Development Programs*. Ottawa: IDRC (retrievable from http://www.idrc.ca/en/ev-26586-201-1-DO_TOPIC.html) and the Outcome Mapping Learning Community at www.outcomemapping.ca.

early-on about achievements rather than activities, and about effects rather than implementation. It is especially useful when the aim is to understand the process of change and how each outcome contributes to this change, rather than simply to accumulate a list of results.

2. OM/ OH supports complex programming contexts. OM/OH is suitable for complex programming contexts where relations of cause and effect are not fully understood. Conventional monitoring and evaluation aimed at determining results compared to planned activities and outputs with what is actually achieved. In complex environments, however, objectives and the paths to achieve them are largely unpredictable and predefined objectives and theories of change must be modified over time to respond to changes in the context. OM/OH is especially useful when the aim is to understand how individual outcomes contribute to broader system-wide changes. Project influenced technological or organizational changes where farmer adoption and adaptation are uncertain can be addressed with this approach.

3. Monitors and evaluates at the same time. OM/OH can be used for both monitoring and evaluation as an integrated process to generate real time evidence for accountability and data about project effectiveness as it unfolds and based on which improvements can be made on the march.

The OM/OH methodology is ideal for the CVC activity evaluation. The CVC activity's complex actors and programming will make this method especially useful. Outcomes are up-stream from impact. If CVC does not influence the achievement of outcomes understood as behavioral change in government extension agents, farmers and other actors, they will never make progress towards the objective of improved agricultural productivity much less arrive at the impact measured in terms of yield: production per hectare, total factor productivity; percent of harvest lost; and for rest of the objectives and impact indicators. We will include both quantitative data on the number of outcomes, as well as qualitative data describing the outcomes, change agent contribution, and other important outcome dimensions. Our recommendations will be able to identify for USAID/Mali and the CVC Activity implementer the actors or factors that are acting as change agents, and may be able to be leveraged to scale the project further. Gender-related outcomes may also help guide revisions in interventions and other modifications of approaches which increase income, production opportunities and food security of women and their families.

The Outcome Mapping and Harvesting methodology will provide an additional layer of quantitative analysis on the existing survey data. Its primary contribution will be in evaluating not only outcomes of the project, but to guide suggestions for improvement that will continue throughout the implementation process. The harvesting of relevant data will be overlaid on the impact and PBS surveys as described in the Methods section below. Given the complexities of the value-chain interventions and the relationships that exist throughout the value chain, the OM/OH process is well suited to the Malian context and will allow for real-time improvements in CVC interventions.

The OM/OH method consists of six iterative steps:

1. Design the Outcome Map and Harvest: The COP, in collaboration with USAID and the CVC Activity managers will identify and map *useable questions* to guide the harvest. The

questions for *Objective 1: inclusive agriculture growth* and *Objective 2: Improved nutritional status, especially of women and children* will be derived from the Foreseeable OM/OH Outcomes Required for Desired Impacts. They will then agree on what information is to be collected and from whom and included in the *outcome descriptions.*

2. Gather data and draft outcome descriptions: The CVC staff together with members of the evaluation team involved in the OM/OH exercises will gather information about changes that have occurred from the actors involved and infer how CVC influenced these changes, writing preliminary outcome descriptions.

3. Engage change agents in reviewing and identifying new outcome descriptions: The CVC team supported by IOS and its OM/OH experts will review the draft outcome descriptions, identify and formulate additional outcomes, and classify all outcomes. Change agents often consult with well-informed individuals (inside or outside their organization) who can provide information about outcomes. The COP will review and approve these outcomes.

4. Substantiate: The IOS team will select 20% or some other agreed sample of the outcomes to be consulted with other independent individuals knowledgeable about each outcome and how it was achieved, validating and enhancing the credibility of the findings.

5. Analyze and interpret: The IOS team will then organize outcome descriptions using a database in order to make sense of them, analyze and interpret the data, and provide evidence-based answers to useable harvesting questions. Findings will be shared with CVC and USAID.

6. Support use of findings: Drawing on the evidence-based, actionable answers to the useable questions, we will facilitate discussion to harvest users, including the CVC Activity Implementer so that they may decide on how best to make use of findings. We will also wrap up our contribution by accompanying or facilitating the discussion amongst harvest users – a roundtable with USAID and other FTF implementers throughout the region. This may encourage other donors and implementers to make use of the participative method of Outcome Harvesting which USAID and the implementer has pioneered on the CVC project, in improving their own projects.

6.4 DATA COLLECTION

The common assessment indicators envisaged to evaluate the Cereal Value Chain (CVC) are robust and able to capture how project investments alter farmer behavior, resulting in Agriculture Growth and Improved Nutritional Status of the farmer's family.

Surveys will be carried out at three points in time and thus will allow measurement of changes and the size of changes over time from the baseline, mid-term and final surveys. Changes in year-one communities will be measurable by the end of year two. Larger impacts will be found by the end of the project between initial values and between values for targeted and control communities.

6.5 SURVEY LOGISTICS

IOS Partners will design efficient samples to adequately represent populations served and controls for the CVC project interventions and more generally accurately estimating FTF

higher level indicators in the population based surveys (baseline, impact and final). Sample sizes will be determined by IOS Partners and IOD Parc and efficient samples developed.

A PBS RFP has been prepared for issue to 8 local firms to undertake the file survey and collection of data. The survey sample has been divided into 4 lots on which a firm may bid on 1, 2, 3, 4 or all 4. Contracts are expected to be awarded by June 1, 2014 A supervisor and enumerator training course is being prepared to ensure the high quality of the field enumerators and supervisors and consequently the data collected.

Sufficient enumerators and supervisors will be hired by the contracting firms, so that, after training, surveys can be completed within two months from start to finish, based on two surveys per interview team (3 persons) per day. IOS is confident that the survey work will be completed by harvest October 1, 2014 but is nevertheless including slack time into its survey planning to allow for contingencies of weather or other delays affecting fieldwork.

In following the lead and recommendations for INSTAT and World Bank Mali we are planning to undertake a paper survey for the initial PBS. Smart phones and tablets are being evaluated for both data collection and for data entry for future year 1-5 surveys.

6.6 TIMING

Baseline Survey - We have coordinated with and dovetailed the CVC Activity into our PBS in a way that will increase the efficiency of both IOS and CVC survey activities and allow accurate measurement of the impacts and results of the project as well as the measurement of indicators toward the achievement of higher level FTF goals.

For the baseline survey both target and control communes and villages have been decided on in cooperation with CVC activity for all three years of the project to make sample selection efficient. During sample selection, the evaluation team will design survey instruments and procedures to take into account the Malian context and its special circumstances.

Outcome Mapping and Harvesting Plan

The OM/ OH missions are expected to be annual. They will either cover all three regions, or they might focus on specific regions or value chains depending on needs of CVC staff and USAID managers. Effective OM/OH work will require the active participation of CVC implementer staff while the evaluation team will provide accurate guidance on specific aspects of OM/OH to determine outcomes influenced by the project. The evaluation team harvesters fulfill a professional role to ensure that the exercise is a systematic, data-based inquiry that upholds the honesty and integrity of what is an evaluative process. Team harvesters are responsible for ensuring that the data is credible, the criteria and standards used to analyze the outcomes are rigorous, and the methods of synthesis and interpretation are solid. For the harvest findings to be credible, the evaluation team has to have the responsibility for quality control despite the high degree of participation of CVC staff and the active support of USAID managers.

Outcome Mapping and Harvesting Workshop with Stakeholders

The COP and DCOP are organizing a series of workshops on Outcome Mapping and Harvesting which will be held for stakeholders in early September 2014 through November 2014. The initial workshop will be aimed at staff of the CVC implementer as well as interested USAID representatives.

7. WORK PLAN AND DELIVERABLES

Objective 1: Conduct statistically representative population based surveys (PBS) for the indicators in the broader FTF initiative in Mali.

Summary

The Population Based Survey of 101 communes in the FTF zone of Influence in Mopoti, Segou and Sikasso excludes the 12 communes in Timbuktu where activities have been postponed due to insecurity. The survey will also cover 101 communes outside the zone of influence to establish a control group for the baseline. The PBS will benefit from previous FTF PBS, specifically in Senegal and Ghana. The PBS will also benefit from the current INSTAT national PBS and the control zone. Additionally, a module 12 will be implemented which will establish a baseline for agriculture production in both the ZOI and the control zone which will serve as a baseline for the continuing evaluation of the CVC activity.

The FTF 11 modules focus on household economic well being, nutrition and poverty as well as including the Women Empowerment in Agriculture (WEIA) module.

Module 12 focuses on establishing the current level of agriculture production and activities in the FTF zone of influence to establish a baseline for the ongoing of the CVC project activity.

April 1 - August 31, 2014

- Define key indicators using USAID framework and implementing partner indicators to develop list of PBS survey questions.
    - The FTF indicators for Mali have been compared with and supplemented by the FTF indicators for Senegal and Ghana resulting in the confirmation of the Mali indicators which were used to establish the PBS questions and the survey questionnaire.

- Define type of household for survey questions based on target population for FTF activities, and generate list of survey questions desegregated by gender and other criteria
    - The FTF 11 modules of questions and survey questionnaires have been obtained for Senegal and Ghana and have been adjusted to fit the Mali context.
    - The Ghana module 12 (agriculture survey) has been obtained and is being integrated into the PBS as module 12. This agriculture survey is being

coordinated with ACDI/VOCA, the CVC implementer who is embarking on a baseline survey for the CVC activity.

- Prepare RFP for recruitment of survey organizations
  - A RFP has been prepared in order to invite local organizations to bid on undertaking the PBS. Submitted to USAID for comments May 1, 2014.
  - A pre- invitation meeting has been held with local organizations interested in undertaking PBS.
  - Letters of interest have been received from 8 local organizations confirming interest in undertaking the PBS.
  - RFP invitation expected to be released May 12, 2014 (10 days to respond)
  - Proposals to be evaluated May 22 – May 31.
  - Contracts awarded June 1, 2014.

- Prepare supervisor and enumerator training course and train top survey implementing organizations and data collection staff
  - Prepare the plan for organizing the training and recruitment of training staff. Submitted to USAID for comments April 28, 2014.
  - First of 4, 5 day courses to begin June 9, 2014.

- Determine sample and control sites with a team of international and Malian experts.
  - Preliminary sample size completed April 21, 2014 using FTF methodology Volume 9.
  - IOD Park undertaking reconfirmation and substantiation of sample size – expected by May 8, 2014

- Generate proven procedures for selecting households within selected sites.
  - Prepare enumerator manual which details procedures for selecting sample households as well as enumeration processes to be followed. Expected completion by May 31, 2014

- Determine enumeration tools and data collection methodology.
  - Evaluate efficiency and effectiveness of paper questionnaires, smart phones, tablets and laptops as toll for data collection. May 21, 2014
  - Confirm tool to be used and prepare implementation plan. June 1, 2014

- Determine data base to be used for data entry and analysis
  - Evaluate alternative methods used in previous FTF surveys May 1-10, 2014.
  - Determine data base to be used to optimize benefits of selected data collection tool.

- Implement Contractor supervisor and enumerator training course.
  - 4 , 5 day courses will be taught from June 9 – July 4, 2014.
  - Certify supervisors and enumerators and confirm their participation in PBS

- Enumerate households
  - 4 survey areas will be enumerated during a period of 30 days each.

    - First survey will commence June 23, 2014. Fourth survey will commence on July 14 and finish on August 10.
- Transfer data to supervisors
    - Data collected will be transferred to team supervisors daily June - September, 2014

- Verify data with field supervisors daily using callbacks and correct discrepancies
    - Supervisors to review data each evening and report discrepancies to IOS Partners
    - Supervisors to correct discrepancies June – September, 2014

September 1 – December 31, 2014

- Backup data and transfer data to statistical analysts September – October 2014
    - Recruit and train data entry staff in Mali
    - Supervise and validate data entered

- Clean data and generate data tables September – October 2014

- Analyze data and write reports in comprehensible language for use by evaluation specialists, USAID technical staff and CVC project personnel. November –December 2014

Objective 2: Provide ongoing evaluation services to objectively assess the impact of the CVC Activity in generating inclusive agriculture growth and improving the nutritional status, especially of women and children, in Mali.

Under this objective IOS team will verify and assess the impact of the CVC activity and provide information and data to support future programmatic decisions and help meet Mali's FTF reporting requirements. The specific activities will include:

April 1 2014 – September 30, 2014

- Document review April 1 - 30, 2014
    - Detailed review of documents provided by USAID, CVC implementer and other organizations
    - Briefing meetings with USAID and CVC

- Identification of major participants in targeted value chains April 1 -30, 2014
    - In cooperation with ACDI/VOCA

- Sampling: selection of intervention and counterfactual communities with CVC April 23, 2014
    - In cooperation with ACDI/VOCA IOS shared list of FTF zone of influence communes as well as list of communes outside zone for purpose of control.
    - ACDI/VOCA has referred IOS commune lists to ACDI/VOCA survey contractor.

- Planning, design, review and adaptation of data collection instruments April 28-30, 2014
    - In cooperation with ACDI/VOCA survey contractor

- Selecting samples: communities; focus group participants; interviewees April 28-May 15, 2014
    - In cooperation with ACDI/VOCA survey contractor

- Carrying out surveys for baseline, impact and final evaluations June- August 2014
    - Agriculture baseline survey integrated into FTF baseline survey in activity 2.

- Designing a data entry template, data entry, data quality control May 2014 – October 2014
    - Agriculture baseline survey integrated into FTF baseline survey in activity 2.

- Preliminary and final analysis October – November 2014
    - Agriculture baseline survey integrated into FTF baseline survey in activity 2.

- Write report, incorporating data tables into report November – December 2014
    - Agriculture baseline survey analysis integrated into FTF baseline survey in activity 2.

- Communication of results and recommendations to USAID and CVC December 2014
    - Survey analysis and report presented USAID and ACDI/VOCA

- Present findings to stakeholders December 2014
    - Survey analysis presented to stakeholders as per USAID direction.

Objective 3: Guide CVC's Annual Outcome Mapping and Harvesting Exercises, Determine Main Project Outcomes (including Unforeseen Ones), Offer Corrective Actions and Exploit New Opportunities

- Introduce Outcome Mapping and Harvesting to Mali: USAID staff, CVC staff and CVC partners;
- Train Outcome Mapping and Harvesting Informants from CVC;
- Train Managers provided by IOS and CVC Evaluators working with the Om/OH exercises;
- Identify Formulate and Classify Harvested Outcomes;
- Virtual substantiation of 20% of outcomes;
- Establishment of Outcome Mapping/Harvest Database;
- Analyze and report on Outcomes; and
- Present findings to CVC and USAID and other donors and researchers (if so desired).

Objective 4: Present results of Surveys to USAID and CVC, and at their request and with their Permission, to other USAID project and USG activities, and others as USAID desires.

- Establish a full-time presence to advise project managers and USAID officers on options for the CVC project based on survey data and outcome harvesting findings.
  - Establish full time with key personnel April 15, 2014

- Provide USAID and CVC with analysis based on surveys, OM/OH and its own experience on possible synergies between CVC and the USAID Livestock Project and interventions.
  - Baseline survey provided November 2014, final report December 2014
  - Staff available to undertake specific tasks requested by USAID

- Attend conferences or workshops and present results associated with the CVC project.
  - COP and DCOP attended Outcome Mapping and Harvesting Workshop in Ghana from April 28 -30, 2014.

- To assist USAID and CVC managers with other research or value chain studies which may be called for during the course of project implementation.
  - Offered availability to assist ACDI/VOCA – April 21, 2014

- Assist USAID and CVC to maximize impact of interventions on women, youth and low-status individuals within the communities. May 1- December 30, 2014
  - Permanent staff available to respond to task requests.

- Bring governance or other issues affecting impacts to the attention of USAID and CVC
  - During contact - 2014-2019

8.0 INTEGRATED TIMELINE FOR THE OPERATIONS OF THE CEREALS VALUE CHAIN AND CVC EVALUATION PROJECTS

Quarter	Cereals Value Chain (CVC) Project	CVC Evaluation Project
YEAR 1 2014-1	Mobilize, Staff + Open Field Offices	April 1, 2014 Open office, hire staff ,Instrument adaptation, sampling frame
2014-2	Meet beneficiaries, Start Fieldwork	May/June Prepare PBS RFP , invite proposals, draw sample, train enumerators, run baseline survey

Quarter	Cereals Value Chain (CVC) Project	CVC Evaluation Project
2014-3	Land prep, planting, weeding, fish-rice	July – Oct. 2014 Run survey, data entry, data management, initial analysis
2014-4	Harvest, marketing, reporting year 1	Oct – Dec. 2014 In-depth analysis, baseline dataset, draft report; prepare challenges, train CVC, staff and managers in Outcome Harvesting

9.0 LIST OF TECHNICAL ACTIVITIES TO CONDUCT FTF BASELINE SURVEY INTEGRATED WITH THE AGRICULTURE SURVEY FOR THE IMPACT EVALUATION OF CVC PROJECT

No.	Activity	Time plan	Participants	Roles and remarks
1	Planning phase: • Designing the survey • Refining the questionnaire	Months 1-2	Beneficiaries, IOD,IOS, Malian researchers	IOD designs survey Includes defining respondents, consultation with USAID, adjustment of instruments to results framework for Malian context
2	Sample selection	Month 1	IOD/ IOS	Evaluation team will work with local partners & researchers to facilitate this process
3	Review of household lists in target/control communities	Month 1	IOD, IOS, Malian researchers	Work with CVC implementer and local researchers to determine appropriate control group
4	Preparing RFP and hiring survey contractors.	Month 1	IOS	Evaluation team will work with local partners & researchers to facilitate this process
5	Training enumerators	Month 3	Hired contractors, enumerators,	Enumerators will be broken into teams and assigned a supervisor
6	Conducting the survey	Month 3-6	Supervisors enumerators, implementer	Teams will consist of a supervisor and small teams of enumerators
7	Supervising the survey	Month 3-6	IOS supervisors	IOS will provide general oversight, while trained supervisors will serve as on the ground monitors of data collection
8	Verifying the collected	Month 5-6	IOS,	Outliers, errors and

No.	Activity	Time plan	Participants	Roles and remarks
	data; data quality control		supervisors	omissions will be identified enumerators and corrected
9	Hiring data entering clerks	Month 5/6	IOS, implementers	
10	Data entry	Month 5/6	Trained data clerks, IOS	IOS will provide oversight throughout this process
11	Data cleaning	Month	CP	
12	Preliminary data analysis	Month 7/8	IOD,CP consultations/ local researchers	Produce and analyze tables; write draft report
13	Finalize Analysis & Final Report	Month 9	Incorporate USAID comments; final report	Consultations with USAID (and implementer); final report

10. DELIVERY SCHEDULE

Documents	Illustrative Due Date
CVC Impact Evaluation	
Inception report developed and approved	Month 1
Impact evaluation plan developed and approved	Month 1
Evaluation data collection reports	TBD
Evaluation final report developed and approved	TBD
Population-Based Data Collection	
Baseline data report developed and approved	Month 6
Baseline presentation developed and approved	Month 6
Midterm data report developed and approved	Month 31
Midterm presentation developed and approved	Month 31
Final data report developed and approved	Month 56
Final data presentation developed and approved	Month 56
General	
Annual Work Plans	Month 2 and annually by Sept 1 subsequently
Quarterly Reports	Month 4 and every quarter thereafter
Trip Reports	By 10 days after each trip