

Guide to Monitoring and Evaluation System Design for Value Chain Projects



January 2012

Introduction

Purpose

The intention of this guide is to give project design teams, project M&E staff and project managers the tools and guidelines they need to effectively plan for and manage highly-effective systems for monitoring and evaluating value chain projects. In doing so, the guide aims to enable CARE to improve the performance of value chain interventions and improve CARE's ability to test the Market Engagement Theory of Change.

Target Audience

There are three primary audiences for this manual:

1. Managers of new value chain projects;
2. M&E Officers and staff of new value chain projects;
3. Value chain project design teams.

Contents

This guide consists of: an introduction to M&E for value chain projects; a series of 11 modules on M&E system design and management; and a series of supporting tools, templates and examples. Wherever possible, we have included illustrations of how individual CARE projects have used these tools in practice.

Development Process

Developing a guide for M&E for VC projects in the current environment within CARE was a challenging proposition with a number of factors requiring consideration, in particular:

- There exist multiple competing or overlapping priorities for impact measurement, including: a growing focus on food security programming and emerging program impact measurement systems; CARE's global Food Security Strategy; and CARE International's development of a global impact measurement system and set of indicators.
- Existing Design, Monitoring and Evaluation guidance sanctioned by CARE International and existing or emerging CO and regional practices and tools for developing program impact measurement systems.

In this context, this guide aims to enrich existing tools and modify practices only where past approaches to M&E design are out of line with the demands of value chain programming. To ensure these ideals were met, a number of CARE CO staff were involved in developing the guide over a two-year timeline that included in-country and virtual collaboration.

Key contributions have been made by CARE staff in Peru, Zambia, Bolivia, Bangladesh, Ethiopia and India. Additionally, we have worked closely with the CARE USA Program Impact team to ensure the guide aligned with CARE's existing policies as well as the emerging global impact measurement system. We have coordinated with Access Africa to mimic that initiative's Learning, Monitoring and Evaluation plan where appropriate and we initiated our process by conducting a review of existing M&E plans from a spectrum of leading CARE market engagement projects. To ensure alignment with leading industry practices, the Donor Committee for Enterprise Development, USAID and a range of practitioner organizations were consulted as the guide was developed. Special mention goes to the Microenterprise Development Office of USAID and the members of the GROOVE Network. Supported by USAID, GROOVE was a three-year effort to build institutional capacity in value chain programming across CARE, Conservation International, Practical Action and CHF. Without the support of GROOVE – and Alexis

Morcrette from Practical Action in particular – this guide would not be nearly as colorful and robust. Gianluca Nardi from CARE International UK served as a steadfast champion of the effort and actively contributed to both the pilots in the field and the guide’s final form. Gary Woller of Woller and Associates served as lead consultant, contributing particularly at the guide’s outset to shape the structure and key modules including reviewing the causal model. Christian Pennotti, Technical Advisor for CARE USA, led the M&E Guide development process. Other CARE staff that actively contributed to the guide include: Claudia Sanchez, Natalia Aguilar, Alejandro Rojas, Ximena Echeverria, Brenda Kambaila, Michael Schroll, Velina Petrova, Toufique Ahmed, Nurul Amin Siddiquee, Meera Sundararajan, Saif Islam, and Nirvana Mujtaba.

We see this guide, therefore, as a well researched and tested resource for effective value chain intervention M&E system design. We realize, however, that the more we use this, the more we will learn. In this way, the guide is a work in progress to be continually improved upon. Please direct any concerns or recommendations for improvement to the CARE USA Economic Development Unit and/or the CARE International UK Private Sector Engagement Team.

Organization of the Guide

The Guide consists of three sections:

1. **Introduction:** An overview of M&E for value chain initiatives and description of how this is similar to and different from traditional M&E.
2. **10-Step Guide:** Outlines the M&E system design process. Each step covers:
 - A. Objective
 - B. Overview
 - C. Materials / Inputs Recommended
 - D. Step-by-Step Process
 - E. Case Example
 - F. Pitfalls
 - G. Templates and supporting materials
3. **Annexes:** Provides further information and examples of how the system has been used in practice.



Note: What is a Value Chain?

A value chain is a network of enterprises that buy from and sell to one another in order to supply a particular set of products or services to a particular group of final consumers.

Background & Rationale

CARE has long been working to improve our organizational capacity in monitoring and evaluation. The development in 1997 of CARE's "Design, Monitoring and Evaluation Guidelines" marked a critical moment in CARE's history and is a demonstration of our commitment to understanding the impacts of our work. More recently, CARE has emphasized improved impact measurement through the development of the UBORA system, which aims to track not only program performance data but also performance data across all operational and functional areas. CARE's transition to a Program Approach marks another rapidly emerging illustration of our commitment to improving effectiveness and impact as does the four-year investment in an organization-wide Strategic Impact Inquiry completed between 2004 and 2007 – an unparalleled investment in institutional learning about CARE's impacts on women's empowerment.

As Country Offices develop detailed programs, new challenges are emerging for M&E and Impact Measurement Systems including questions about how to balance project or 'initiative' level M&E with program-level M&E and how to assess CARE's overall impact at a global level.

In line with the Program Approach's emphasis on the entrenched and multi-faceted nature of poverty, CARE launched a Market Engagement Strategy in 2008 to advance a systemic approach to improving the opportunities for women and girls to participate in and benefit from markets. Specifically, the Market Engagement Strategy aims to increase CARE's application of a Value Chain approach, building on experiences in the field that showed that market-based interventions working across target value chains – through a mix of demonstration, facilitation, partnership and direct intervention – had better results in terms of long-term sustainability, scalability and impact than traditional economic development methods.

While promising, this realization also raised new challenges for CARE's programming and M&E. For instance, if CARE's projects are deliberately working to effect change beyond our direct participants, how will we monitor this? As we apply a broader, more systemic lens to our work how can we know if our interventions are on track? And, when applying a Program Approach, how can we effectively integrate M&E that ensures quality market-based interventions while also tracking other intervention areas?

The Value Chain approach promotes dynamic implementation. This means that interventions will be tried on a pilot basis. If they are successful, they will be scaled up. If they fail, they will be revamped or discontinued. Changes will be made, often frequently. In this context, M&E also needs to be adaptive. Below, the key differences between traditional M&E and M&E for Value Chain projects are outlined.

Key Differences between Value Chain Project M&E and Traditional M&E

There are three key differences between M&E for value chain initiatives and M&E for traditional approaches to economic development:

1. **The need for field staff to play a more active role in outcome monitoring and strategic decision making.** Value chain projects, by their nature, are more dynamic and adaptive than traditional economic development initiatives. As a result, 'data' needs to be gathered, analyzed and shared more rapidly than traditional M&E systems enable. This shift places field staff in a more empowered position – one which relies on them to do on the ground assessments and play a more active role in guiding project strategy decisions. Making sure field staff have the time and simple tools for information collection and sharing is a key challenge of M&E for VC projects. CARE's approach to addressing this challenge focuses on identifying two types of indicators to track project performance: those to be tracked through routine measurement (like a traditional M&E system) and those to be tracked through routine observation. These observation-oriented indicators provide a common focus through which staff and partner experiences can be analyzed to inform decision making.
-

2. **The need to develop M&E systems that can track behaviors and outcomes beyond the scope of direct participants.** Given the value chain approach's focus on influencing market behavior and performance broadly, not simply in relation to a particular set of participants, M&E systems need to be set up to capture indicators of systemic change.
3. **The need to develop M&E systems that adapt with changing priorities and interventions.** Dynamic implementation means that project interventions will change, though the overarching goals will not. New pilots represent a common example of the types of changes projects need to absorb, often by setting up 'mini' M&E systems to track these and assess their appropriateness for scaling up within the broader project.

In responding to these issues as we put together this guide, we have taken care not to “reinvent the wheel” and in many ways the processes laid out here are not great deviations from those already promoted in CARE’s existing DME Guide or donor efforts like the DCED Results Measurement Standards. Wherever possible, we have tried to draw directly on these resources. As a result, this guide is well aligned with CARE policy and the expectations of an increasing number of donors. This guide differs from existing CARE guidance in a few important ways, however:

- It incorporates a clear focus on assessing impacts not only at an individual, enterprise and household level, but also at a value chain level.
- It includes clear guidance on how we can incorporate women’s empowerment measurements in our value chain project causal models and M&E systems.
- It pairs principles and standards – stating what an M&E system should include – with tools, guidelines, processes and examples so that users of the guide know how to design and manage an M&E system that meets those principles and standards.
- It places a strong emphasis on participatory strategies and methods for building an M&E system, which ensures the M&E system is well understood by its users and reflects their needs, thereby increasing the potential for M&E to support ongoing performance improvements and accountability.

A Note on M&E Costs

Much of this introduction sounds like additional complexity and, therefore, a more costly approach to M&E. In some instances, this will in fact be the case. M&E is frequently under-resourced. However, this guide was developed recognizing that increasing resources for M&E is not a reliable expectation. The focus of this guide, therefore, is on: improving efficiency wherever possible by being more careful and deliberate about what we choose to measure; thinking more fully at the design stage about who needs information, in what format and when; and using a broader set of criteria to decide how we will gather and process this information in ways that enable us to meet the needs of the greatest number of stakeholders. We have also made recommendations on how technology could be considered to improve M&E effectiveness. While in many cases the up-front investments in technology are higher than the typical initial costs to set up an M&E system, the ultimate pay off in terms of staff time available to use – rather than organize – data is worth the initial investment.

Module 1: M&E System Client Mapping

A. Objective

The objective of this step in the M&E design process is to enable CARE teams and partners to identify and prioritize the people or groups that will use information generated by the measurement system. These are the **M&E system clients**. Their needs will determine what information you gather, how you gather it and how you share it with them and others.

B. Overview

Different Clients, Different Information Needs

The purpose of the M&E system is to provide information useful to the project's internal and external clients. **Internal M&E clients** include the management and staff of the project, implementing partners and participants. **External M&E clients**

include donors, value chain actors, other CARE programs, policymakers, academics and other development organizations.

Generally, internal and external clients have different information needs and demand different degrees of rigor. Internal clients need information to help them manage project operations, plan activities, and make mid-stream adjustments to ongoing activities. For this they need frequent and easily digestible quantitative and qualitative information of reasonable – not precise – accuracy focused on short- and medium-term results. External clients typically need information to perform periodic monitoring of project results in order to hold projects accountable for promised results (donors, participants), gauge the return on their investments (donors), determine the effectiveness of a development approach, and assess the achievement of development objectives (donors, academics, policy makers, etc) or decide if they want to engage in a partnership with the project (value chain actors, government ministries, other development programs). For this they tend to require less frequent, but more formal and more rigorous (often largely quantitative) information.

Table 1 (below) describes the different information needs of internal and external M&E clients. While the actual information needs of clients vary from project to project, the descriptions in Table 1 apply broadly across value chain projects.

The key point illustrated by Table 1 is that effective M&E systems for value chain projects need to incorporate features that meet the needs of both internal and external clients of the system. Although this is a widely accepted concept, all too often M&E systems struggle with a lack of resources or capacity and, therefore, focus almost exclusively on the needs of external clients –donors in particular. This guide is designed to help you overcome this traditional M&E challenge.



Note: Why focus on M&E system 'clients'?

Traditionally, NGOs have talked about M&E system clients. The shift in this guide to talking about information users as clients is meant to help us remember that **the point of M&E is to meet the information needs of various audiences including managers, donors, field staff, partners, policy makers and program participants**. By looking at our M&E audiences as clients, we ensure we are continually focused on meeting their needs - not our own notions of what should be measured or communicated.

“All too often M&E systems focus almost exclusively on the needs of external clients – and donors in particular. This guide is designed to help you overcome this traditional M&E challenge.”

Table 1: Illustrative Information Needs of Internal and External M&E Clients

	Internal Clients	External Clients
Purposes	Project management, decision making and planning, integration with other CARE interventions, partner engagement, impact group participation, ensure accountability.	Hold projects accountable for funds, gauge return on investment, determine the effectiveness of development programming, assess achievement of development objectives, decide whether or not to initiate or scale a partnership with the project.
Frequency	Ongoing (Weekly, monthly, quarterly, etc)	Periodic (e.g., every 6-12 months)
Timeframe	Short- and Medium-term	Medium- and long-term
Type	Quantitative, Qualitative	Quantitative (primarily), Qualitative
Formality	Formal (Standardized measurement) Informal (Non-standardized measurement)	Formal (Standardized)
Accuracy	Reasonable accuracy	Precise accuracy
Flexibility	Highly flexible in methods applied	Less flexible in methods applied
Attribution	Expect information to establish plausible attribution	Expect information to establish more scientific attribution

In designing your M&E system, it is important to identify early on who your key clients are and what specific information they need or want. M&E Client Mapping is a simple technique to identify the key M&E clients and their corresponding information needs. Using this tool early on in the M&E process enables you to understand the priorities of the most important clients and use this knowledge to shape the M&E system.

C. Materials / Inputs Recommended

This step can be completed in many ways. If you are developing the M&E system in a workshop, then you will want to have:

- flip chart paper;
- large note cards;
- markers;
- tape or 'sticky stuff'.

You will also want to engage managers, field staff, donor representatives and potentially some partners in the exercise. If you are doing this virtually, an email dialogue can work effectively. Engaging target clients of the M&E system will ensure that the M&E team develops a demand-driven client map and it will reduce the overall workload!

D. Step-By-Step Guide

There are three steps in the M&E Client Mapping process:

1. Identify the clients;
2. Prioritize key clients;
3. Understand key clients and map their information needs.

STEP 1: IDENTIFY THE CLIENTS

The first step in the M&E Client Mapping process is to brainstorm who your clients are. These include all the people who are affected by the project, who have influence or power over it, or who have an interest in its success. Table 2 lists some potential M&E clients.

Table 2: Potential M&E Clients

Internal Clients	External Clients
Project managers	Donors
Project staff	Value chain actors
Implementing partners	Participants (Target groups, impact groups)
Sub-grantees	Local communities and community leaders
Country office	Business associations
Program managers	Community-based organizations
CARE HQ	Local and national government officials

To complete this step in the process:

- Engage the participants in a brainstorming exercise to list as many potential clients as possible, both internal and external.
- Add each client to an individual note card (preferably a big one) and make a stack of them.

At this stage, you should try to list as many potential clients as possible. Once you have listed all clients you can think of, move to Step 2.

STEP 2: PRIORITIZE THE KEY CLIENTS

At the conclusion of Step 1, you may now have a long list of potential clients. Some clients may have influence over the project. Some may have limited power, but be relevant to achieving your results. Others may have less power or less relevance to your goals, but still be counted on your initial list. Step 2 will help you to prioritize this list using a simple 2- by-2 matrix. You will categorize clients using the following criteria:



Tool: M&E Client Prioritization Matrix

This tool will help you to determine which potential clients of the M&E system deserve the greatest attention.

1. What degree of **influence** does the client have on the project results? Influence measures the M&E client’s relative level of authority or ability to affect project decision making. A client with a high degree of influence controls key project decisions or has a strong ability to enable or hinder implementation of project tasks. These clients are powerful.
2. What degree of **relevance** does the client have to project results? Relevance measures the degree to which the project cannot be considered successful if needs, expectations, and issues of the client are not addressed. So, some M&E clients may have little influence but high degrees of relevance, making them an important audience.

Placing each client on the list from Step 1 in the Influence / Relevance Grid shown in Table 3 will enable you to prioritize the most important clients accordingly.

- *High Influence, High Relevance Clients:* These are the clients you must fully engage with and make the greatest efforts to satisfy.
- *High Influence, Low Relevance Clients:* Put enough work in with these clients to keep them satisfied, but not so much that they become bored with the message.
- *Low Influence, High Relevance Clients:* Keep these clients adequately informed, and talk to them to ensure that no major issues are arising. These clients can often be very helpful with the details of the project.

- *Low Influence, Low Relevance Clients:* Monitor these clients, but do not provide them with excessive communication.

Table 3: Influence/Relevance Grid for Client Prioritization

High	<p>KEEP SATISFIED</p> <p>Understand the key interests of these clients and ensure you keep them informed of any significant changes (positive or negative) or potential challenges on those issues.</p>	<p>MANAGE CLOSELY</p> <p>These are the highest priority clients of the M&E system. They are central to achieving your goals and their information needs – including the channels through which the access information and the formats it comes in – will serve as the focus for the M&E design process.</p>
Influence	<p>LIGHTLY MONITOR</p> <p>These clients are those that may <i>like</i> to know about the project but do not necessarily <i>need</i> to know about the project. Typically, your communications to other M&E clients can ensure you reach this audience without spending too much time on it.</p>	<p>KEEP INFORMED</p> <p>These clients need to be kept adequately informed. They can often help inform tactics and often represent actors you are trying to influence (firms beyond your partners, local government agencies, etc) to get them more engaged in the project.</p>
Low	Low	High
	Relevance	

To complete this step in the process:

- Create a large 2-by-2 grid on the wall using masking tape.
- Have participants place the index cards with potential clients on the grid base on the level of priority they think they should be given. (You could give every group a stack of cards with every potential client on them or split one stack of client cards up across the groups.)
- Be prepared then to facilitate a discussion on why groups placed the potential clients where they have and determine if everyone agrees. Frequently, this process leads to changes in who are the priority clients. The discussion should continue until you reach agreement on most, if not all, of your priority clients. (Be careful in this process that you do not end up with everyone in the “High / High” box. You need to make some tough choices here.)

STEP 3: UNDERSTAND THE KEY CLIENTS AND MAP THEIR INFORMATION NEEDS

Now that you have identified priority clients for the M&E system, you now need to know more about their specific information needs and expectations. You also need to know how best to engage the key clients and communicate with them. Questions that can help improve your understanding of key clients for the M&E system include the following:

- What principally motivates the client’s interest in the project?
- What information does the client want from the project?
- How does the client want to receive information from the project? What is the best way to communicate with them?



Tool: M&E Client Information Needs Worksheet

This tool will help you to develop a summary of priority M&E client information needs, the level of rigor they expect and how frequently they want data. (pg. 14)

The M&E Client Information Needs Worksheet (pg. 14) will help you to organize information on M&E client information needs and expectations.

To complete this step in the process:

- If you are in a workshop setting, divide the key M&E clients among small groups. “Key” clients are those that were placed in the “High / High” quadrant during Step 2.
- Have each group answer the following questions about each key client:
 - Purpose – Why does the client want information about the project?
 - Frequency – How frequently does the client expect / need information on the project?
 - Timeframe – What sorts of results are the client interested in? Short-term, medium-term, long-term?
 - Type – What types of information are the client interested in? Qualitative? Quantitative? Both?
 - Formality – How formal do the information and the information collection tools need to be?
 - Flexibility – When considering methods, how flexible will the client be in which methods the project uses to generate information?
 - Accuracy – What degree of accuracy does the client expect or need?
 - Attribution – To what degree does the client expect or need the data they receive to be able to definitively attribute measured results to project interventions? Do they need scientific accuracy or will ‘plausible’ attribution be sufficient?
- Once the small groups have answered these questions for each key client, the results should be presented and agreement reached on each key client’s information needs and expectations.
- Use the sample table at the end of this chapter to capture your information. Table 4 provides an example of a completed form from the ADAPT project in Zambia.

E. Case Example: Table 4. Illustrative M&E Client Map from the CARE Zambia ADAPT Project

Criteria	AGRA ¹	Donors	Input Suppliers	Project Staff	MACO ² Field Staff	Agro Dealers
Purpose	Accountability Fundraising Decision making on program scale up & other investments	Decision making on funds allocation Create interest & buy-in in future projects Build confidence and credibility	Planning Marketing Product stocking & re-ordering Area to service	Decision making Reporting Feedback	Planning Research Extension services	Improve business Provide better service to farmers Enhanced network & linkages
Frequency	Semi-annual Monthly updates	Periodic	Irregular	Ongoing	Quarterly	Ongoing
Timeframe	Medium-term Long-term	Medium-term Long-term	Short-term	Short-term Medium-term	Short-term Medium-term	Short-term (info) Long-term (vision)
Type	Quantitative (data sheets) Qualitative (human stories, pictures)	Quantitative (provide proof, show results & success)	Quantitative Qualitative	Quantitative Qualitative	Quantitative	Qualitative
Formality	Formal (semi-annual) Informal (monthly)	Formal (proposals) Informal (info sharing & dialogue) *Depends on relationship with donor	Depends on use	Formal Informal	Formal	Informal
Flexibility	Inflexible (semi-annual) Flexible (monthly)	Less flexible (baseline & mandatory indicators) *Depends on project stage	More flexible	Very flexible on some Less flexible on others	More flexible	Very flexible
Accuracy	High accuracy (semi-annual)	Reasonably accuracy (informal) Higher accuracy (formal) *Unknown donor or proposal	Reasonable accuracy	Depends on type of information	Reasonable accuracy	Reasonable accuracy
Attribution	High attribution	Preference for scientific accuracy but plausible attribution acceptable	Attribution not important	Attribution important but not always necessary	NA (report on outputs only)	Plausible attribution

¹ Alliance for a Green Revolution in Africa

² Ministry of Agricultural and Cooperatives

F. Common Pitfalls

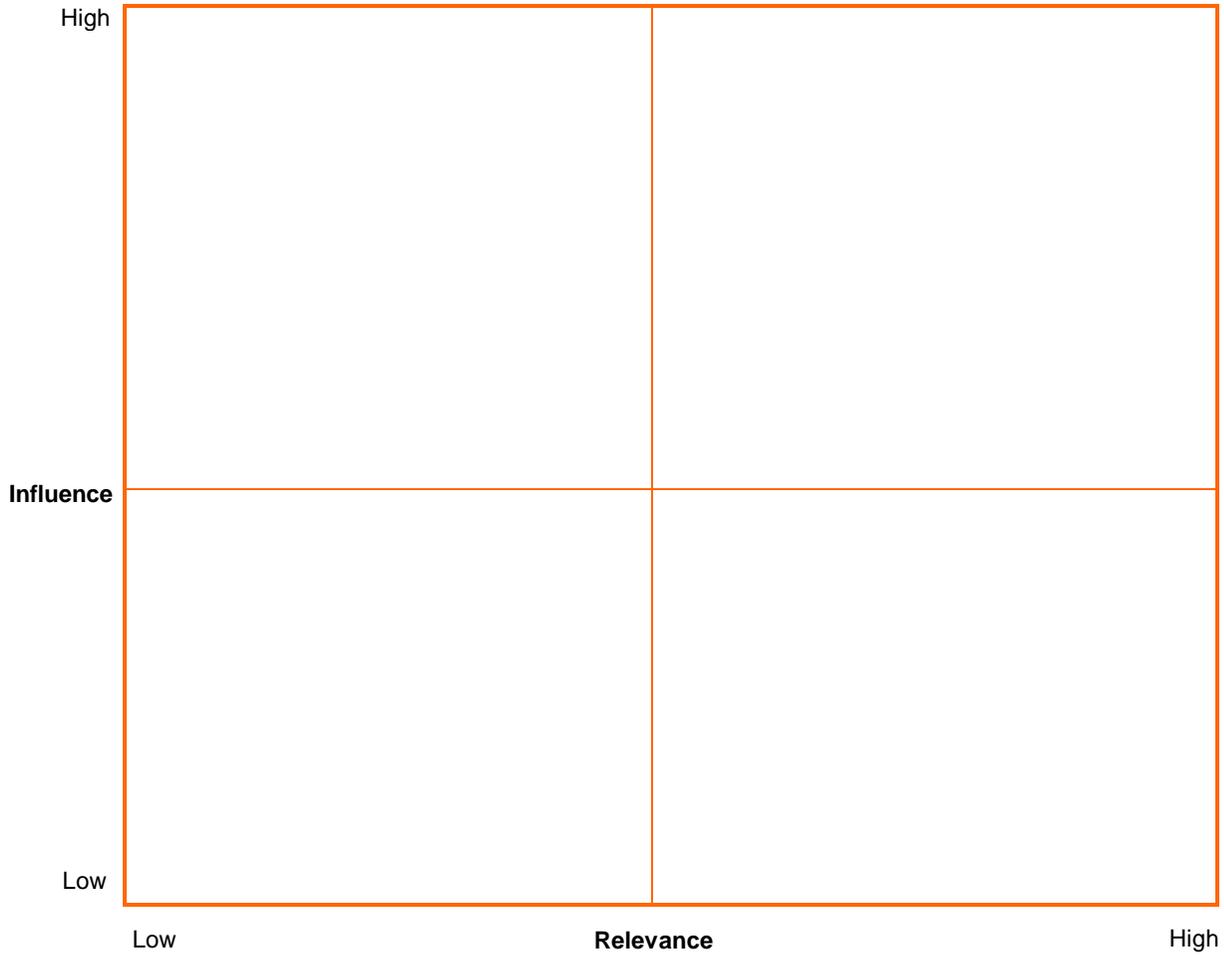
- Projects do not prioritize clients nor try to understand their unique information needs in developing their M&E systems. As a result, projects frequently end up with a one-size-fits-all M&E system.
 - Projects fail to consider internal clients and their information needs. Nor do they consider that M&E for external clients need not necessarily be the same thing as M&E for internal clients. This is one reason why M&E so frequently fails to function as a useful management tool.
 - Projects often develop M&E systems with a single client in mind—the donor, so as to satisfy external accountability requirements. Even in this case, however, projects often make little effort to understand what the donor's information needs are with the result that projects frequently end up collecting and reporting more information than the donor needs or wants.
-



G. Templates and supporting materials

1.

M&E Client Prioritization Matrix





2.

M&E Client Information Needs Worksheet

	Clients					
Criteria						
Purpose						
Frequency						
Timeframe						
Type						
Formality						
Flexibility						
Accuracy						
Attribution						

Module 2: Developing, Reviewing and Refining Your Causal Model¹

A. Objective

The objective of this Step is to help the project designers or implementation team to illustrate the causal pathways that link your planned interventions to your end goal. This step is completed through a participatory exercise, which has the benefit of helping to clarify what assumptions different people have about how you will achieve your results. You will work through these to come up with a common vision and also to identify the critical – or killer - assumptions in your model, which will help you to prioritize indicators, measurement tools and analysis processes in the steps ahead.

B. Overview

A causal model - also often called a theory of change, results chain, causal chain or logic model - is a *tool* used to consolidate, in one summary graphic:

- The overall project goal and purpose
- The linkages between project interventions and the effects these are expected to yield in support of the goal and purpose
- The assumptions being made about how these linkages work and will play out in practice.

Causal models allow project designers, managers and staff to be explicit about the ways in which they expect the project's interventions to lead to positive effects on impact group and target group members over time. Importantly, in contrast to logical frameworks - which also remain a key aspect of many M&E plans - causal models are non-linear, allowing users to illustrate how interventions, effects and impacts are related to one another vertically, horizontally, diagonally, etc. This flexibility is important for systemic interventions like value chain programs, which often defy linear logic.

In practice, causal models are most useful when they serve not only as an illustration of a project design, but also as a common foundation upon which all project team members and key clients agree. This can be achieved by using participatory processes to design and review causal models as key points in the project lifecycle. This is why sound M&E systems for Value Chain programs rely on causal models to guide the development of their M&E systems: a practice that has long been in place but is increasingly encouraged by initiatives such as the Donor Committee for Enterprise Development's Results Measurement Initiative.



Note: We already develop logframes. Do we really need a causal model too?

Yes, particularly for complex, systemic interventions like value chain projects.

Logframes and causal models serve different purposes and are both useful aspects of a good M&E system. Causal models provide a means of illustrating a project's complete theory of change including the relationships between different interventions, effects and impacts. The advantage of a causal model is that it provides a picture of how the project will achieve its objectives, and it is not necessarily linear. Logframes, by contrast, are useful for consolidating some key information on activities, effects and impacts in a table. Typically, however, logframes force projects to present information in a linear fashion, which is not always very reflective of how things work in reality.

So, while you may need a logframe to meet a donor's requirements, it is important to first have a causal model that enables your team and partners to see how you expect your interventions to lead to changes across the value chain.

¹ This chapter draws on original content as well as content adapted from CARE's Design, Monitoring and Evaluation Guide, MEDA's Guide to Value Chain Program Design, and the Donor Committee for Economic Development Results Measurement Standard Implementation Guide. Many thanks go to the DCED and MEDA who willingly allowed us to use their content in this manner.

This chapter outlines what a causal model is, CARE's standard causal model framework for value chain programs and how to develop a causal model (if your project does not already have one) or review your causal model (if it does) to initiate the M&E system design process.

Introduction to Causal Models for Value Chain Projects

For Value Chain projects, causal models are graphics that show how project interventions:

- a) Will directly influence the key aspects of the value chain – the end market, the enabling environment, the socio-economic context, value chain relationships, support product and service markets, business performance or entrepreneurship;
- b) How those changes are expected to indirectly affect the broader market system;
- c) What the impacts are intended to be on poverty, women's empowerment and gender equality.

Once developed, causal models serve four core purposes:

-During project design, causal models:

1. Establish a clear vision of how the objectives will be achieved by summarizing the causal flow between interventions and effects as well as the assumptions that are being made.
2. Provide the design team with a simple way of re-assessing and finalizing the project design.

-Once a project is funded, causal models:

3. Serve as the basis for the project monitoring and evaluation system.
4. Help to improve performance by providing a touchstone for regular reflection among the implementers.

At all stages, the causal model is helpful in communicating project intent to a wide range of clients including potential donors, internal audiences, partners and project participants.

C. Materials / Inputs Recommended

Documents:

If you already have a project causal model, skip to Step 3 under "Step-by-Step Guide" in this chapter.

If you do not already have a causal model but used CARE's Market Analysis and Value Chain Program Design course to design your project, you can use the following to help develop your causal model:

- Goal and Purpose Statements
- Master Problem Tree
- Sustainable Solutions Table
- Interventions Table
- Risk Manager.

“By engaging others in the causal model development or review process, you will ensure that everyone sees the project through a similar lens. This is a critical component of the learning environment that value chain projects need in order to succeed.”

If you have not used CARE's process to design your project and do not have a causal model, you will need to collect all key design documents including the tools you used to help define your goal, the market constraints you seek to overcome, and your interventions. You will want to have clear explanations available for why you made decisions at each step in the design process.

People: Whether you are developing your initial causal model or reviewing and refining a causal model developed during program design, this process is best completed as a participatory exercise. You will

want to engage field staff, the project manager, program managers, key partner staff and possibly partners in your process. By engaging others in the causal model development or review process you will ensure that everyone sees the project through a similar lens. This is a critical component of the learning environment that value chain projects need in order to succeed.

D. Step-By-Step Guide

STEP 1: STRUCTURE YOUR CAUSAL MODEL

Causal Models are deliberately flexible in order to accommodate a wide range of potential projects and interventions. The Causal Model presented in this guide, however, provides a structure that has been tested within CARE and appears particularly well suited for CARE value chain projects. The model establishes four core domains of impact:

- **Impacts:** Impacts sit at the top of the causal model in the *Household Domain* – The household domain refers to changes anticipated within the households of IG members and among IG members themselves. Ultimately, the goal of all value chain projects is to contribute to sustainable, scalable poverty reduction, women’s empowerment and improved livelihoods among IG member households.
- **Outcomes:** In order to clearly illustrate the outcomes the project will directly and indirectly yield, effects are divided across three distinct domains:
 - o *Enterprise Domain* – The enterprise domain refers to outcomes anticipated in the knowledge, skills, attitudes, actions and performance of value chain actors and support services providers with which the project is directly engaged. The results listed here are therefore often a direct result of the project’s actions.
 - o *Sector Domain* – The sector domain refers to changes in the value chains and markets involved that go beyond the actors on which the project is directly focused. The results listed here are often indirect outcomes of the project’s activities and, therefore, the result of copying or crowding in.
 - o *Women’s Empowerment and Gender Equity Domain* – This domain is cross-cutting and typically closely aligned with outcomes in the enterprise and sector domains. It is separated out to ensure projects fully consider how their interventions will advance women’s empowerment and gender equality – and that they have a clear plan for achieving these.

From the bottom to the top, your causal model should be designed to present the following information:

- Underlying assumptions – Each line in your causal model represents an assumption. This is the logical link between one step and another along your causal pathway. The causal model format provides a space for teams to list the most critical assumptions underpinning the project’s design.
- Interventions – These are the activities your project will undertake.
- Outputs – These are the immediate results of the interventions. Projects have nearly complete control over the achievement of outputs.
- Leading outcomes – These are the short-term changes implementers expect to see as a result of the outputs. Leading outcomes are often preliminary changes in participant knowledge, attitudes and practices – often called “KAPs” – that ultimately lead to longer-term changes in enterprise and sector performance or women’s empowerment and gender equality. In value chain projects, which need to

be acutely aware of shifts in IG, TG or Client behavior or interest in the intervention, leading outcomes are particularly important to identify clearly and in a participatory manner. As discussed in Chapters 4 and 5, leading outcomes are often monitored through informal processes, relying on staff observation and limited surveying to help projects make adjustments.

- Lagging outcomes – These are medium-term changes that implementers expect to see as a result of leading outcomes. Lagging outcomes are often tangible changes that result from changes in KAPs.
- Impacts – The long-term changes that will show if you have achieved your ultimate goal. These are typically monitored using formal methods and incorporated into project baseline studies and final evaluations. As noted above, for most projects, impacts are measured in terms of improvements in the lives of IG members.

In developing causal models, teams should focus on ensuring the model is detailed, logical and realistic and that the final product provides a clear summary of the project's intent and expectations for change.

STEP 2: DRAW YOUR CAUSAL MODEL

For projects that do not yet have a causal model, a simple way to create one is to follow these basic steps:

1. Begin by drawing boxes for the pieces of the model you have most clearly articulated:
 - o Use your purpose and goal statements to fill out the top of the model.
 - o Use your assumptions and risk manager to fill out the key assumptions.
 - o Use your interventions table to fill out the interventions level. If more than one intervention will be undertaken, you will need to draw a separate box for each intervention and use arrows to show the relationship between them.

Typical questions to ask are:

- a. Does one intervention lead to another or will they be undertaken at the same time?
- b. Do they all target the same market actors or do they target different actors?
- c. Do they all aim to produce one specific change in the value chain or are they aimed at different changes?

The causal model does *not* need to show every detail of the Interventions e.g. preparatory meetings and other Interventions. In developing your causal model, it is helpful though to include a brief description of each intervention. So, for an agricultural project you may have categories such as production upgrading, community mobilization and market development with descriptions, such as:

- o Production Upgrading: Develop and test business models with existing service providers for increasing extension, credit, and input provision targeting female producers.
- o Community Mobilization: Work with community associations to design and roll out increased services for HIV/AIDS-affected households.



Note: Drawing the Causal Model

To actually draw your causal model, using flip chart paper and index cards or post-it notes is typically a good approach as you will likely make many changes.

Once you have this figured out in that format, programs including Microsoft PowerPoint and Microsoft Visio have functions that are very helpful in drawing a causal model. If you have limited time or understanding of these software programs, causal models can also be made in MS Excel, Word or similar programs.

- Market Development: Conduct business management skill training for market information providers and enhance links to intermediaries to ensure information is accurate, reliable and accessible to producers, both women and men.

The goal is to be concise but clear.

Lastly, define the outputs you expect to emerge as a direct, immediate result of your interventions. These are typically quite concrete and countable. For instance, if you plan to train smallholders, your output would be that smallholders have been trained. If you plan to facilitate market linkages by conducting seed fairs with multiple market actors, your output may be the number of fairs held or the number of participants.

2. With your assumptions, interventions, outputs and goals articulated, you now need to articulate the “causal pathways” connecting these by describing the main changes expected to result from project interventions over the course of your project. This is the point at which design teams need to think critically about your expected results across multiple domains. As noted above, most value chain projects should at least consider the following domains at the outcome level:
 - Direct, Enterprise Level
 - Indirect, Sector Level
 - Cross-Cutting / Women’s Empowerment and Gender Equity.

Household-level results may be included at the outcome level as well, but are often more appropriately listed at the highest level of the causal model – impacts.

In defining your anticipated outcomes, you will likely make a number of adjustments, developing potential outcomes and then changing them. This is natural and an important part of the process, so do not get frustrated. You will want to have your innovations table, your problem tree and your risk management matrix handy as you identify the outcomes.

From here, you can construct your causal model in many ways. Perhaps the most straightforward method is to proceed intervention by intervention.

Drawing from your interventions table and your problem tree, look at your outputs related to the first intervention. What key changes do you expect these to yield over the life of the project? Among these, which will come first? These changes will be categorized as your leading outcomes. Add boxes for these outcomes in the leading outcomes section and then draw arrows linking them to specific outputs. Questions to ask as you do this include:

- Does this change contribute directly to improving the performance of producers or other market actors? If so, it will fall in the enterprise domain. If not, does it contribute indirectly to improving the sector?
- Does this change contribute to increased gender equity or women’s empowerment? If so, you may want to create a box in the cross-cutting women’s empowerment domain to show what specific changes you anticipate around this issue.

Note that outputs frequently lead to outcomes across multiple domains, e.g., women’s empowerment and enterprise-level outcomes, or outcomes among multiple actors, e.g., seed fairs may have outcomes among both



Note: Focusing on Gender

Projects have found that when expectations for advancing women’s empowerment or gender equity are embedded in other elements of the causal model, they are often overlooked. By breaking these expected effects out into their own section of the causal model, projects and others can more clearly see what is expected – enhancing performance and accountability.

farmers and seed supply companies. It is important to outline the outcomes you expect on multiple market actors in your causal model.

With leading outcomes in place for the first intervention, look at the gap that remains in your causal model between these and your anticipated impacts. Again drawing on our interventions table and problem tree, assess what changes you anticipate filling this gap. These will become your lagging outcomes.

Note that frequently, indirect, sector level impacts only appear at this level and result from the demonstration effect of successful interventions in the enterprise domain. In addition, in some cases, there might be two layers of outcomes at the lagging level – for instance, increased productivity leading to increased profits. The important thing to focus on in your causal model is ensuring the diagram is accurate, not how many boxes or linkages you have.

Add the boxes you feel are necessary for your lagging outcomes and draw arrows linking them to your leading outcomes and anticipated impacts.

Once you have completed this for one intervention and you are satisfied with the causal pathway, go back and complete this for each intervention you have planned. As you do this, note that in many cases, multiple interventions will contribute to the same outcomes – in fact, ultimately they will all converge to contribute to the project goal. Wherever you can, try to streamline your causal model so it is clear how outcomes converge as time goes on.

3. Finally, review your goal and develop impact results that capture the long-term changes in and around the value chain that will occur as a result of the project. For many value chain projects, these will include: increased income among the poor; increased competitiveness of the value chain; and, when focusing on women's empowerment, something defining the impact you are aiming for. For example, increased integration of rural women into a market system resulting in higher incomes and improved household nutrition. As discussed in Chapter 4, CARE has defined a set of common indicators at the impact level for all value chain projects.

You will need to develop specific anticipated impacts based on your goal statement and the causal pathways linking your interventions to your outcomes.

STEP 3: VERIFY CAUSAL PATHWAYS AND FINALIZE CAUSAL MODEL

Once you have developed causal pathways for each of your interventions, take a step back and review the causal model as a whole. This process will allow you to ensure that your final model truly reflects the project you aim to undertake and is realistic and appropriate. Some key questions to ask at this stage include:

- Is the project goal and purpose still aligned with your initial intention?
- Is the causal model thorough, logical and realistic, showing as far as possible how the selected interventions will create significant impact?
- Are the solutions tailored to the constraints faced by project enterprises in reaching identified markets?
- Does the sum of interventions or results at each step in the causal pathway logically flow into the achievement of the next?
- Do we have evidence from our design process to support the linkages all along the causal model?



Note: Verifying Your Model

Verifying the causal model is often a good opportunity to reengage with clients that have fed into the project design process. This effort can both ensure your logic is valid and demonstrate to clients how your thinking has evolved and what you have done with their input. This is a very good opportunity to engage potential project participants in your design process.

- Are there conditions that have not been considered and need to be added as an assumption or a risk?
- Can we effectively manage the project we are proposing?

This list is illustrative but should provide teams with a good minimum set of requirements for the causal model. Once you feel you have sufficiently addressed these and made any necessary changes, you can move to your final step in project design.

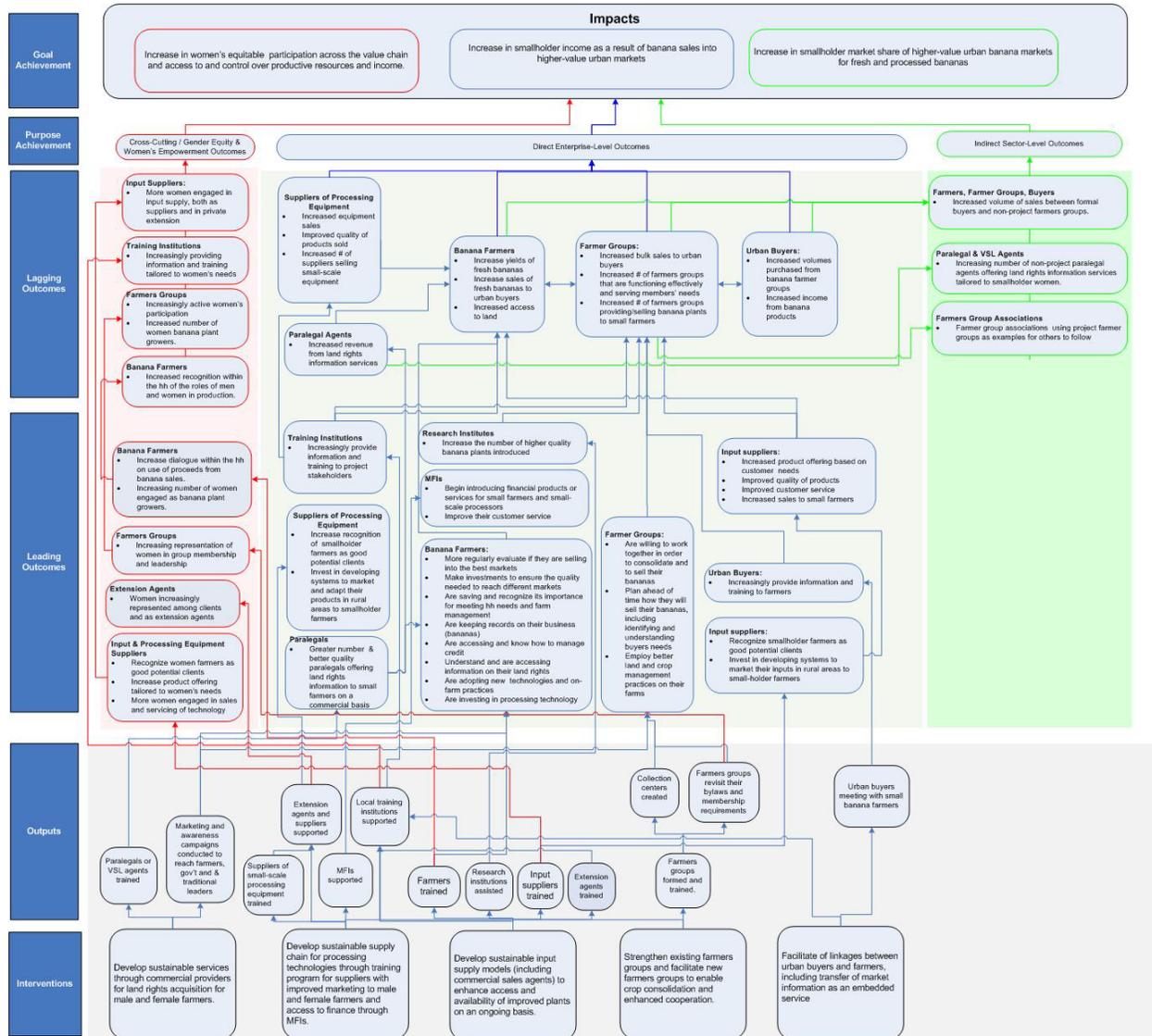
STEP 4: DOCUMENT YOUR WORK

Having fully outlined your project's causal model, the last step in the design process is to formalize this in a way that is understandable both to internal and to external clients. This will mean the development of a formal version of the causal model.

As noted above, the causal model can take many forms. Some projects prefer to use a table to consolidate this information, but others feel that the graphical presentation of the project more clearly illustrates how the project components contribute to the ultimate impacts. We recommend that projects use the template outlined above to organize their information and augment this with a clear, brief project narrative. Microsoft PowerPoint, Visio, and Word are all typical software options used to develop causal model diagrams. Photographs may be another way of illustrating a causal model, particularly to internal audiences. Alternatively, projects may opt to use a simpler format in a table developed in Microsoft Word or Excel.

E. Case Example

The causal model below illustrates is taken from a fictitious case study and illustrates how the planned interventions lead to outputs, leading and lagging outcomes and finally impacts. Note that the three columns at the outcome level reflect cross-cutting / women's empowerment outcomes on the left in red, direct, enterprise-level outcomes in the middle in blue, and indirect, sector-level outcomes on the right in green.



F. Common Pitfalls

- Being inflexible or forcing teams to adopt any particular model will undermine this exercise.** The importance of working with the team to develop or review the causal model together is not that you arrive at any particular format – it is that you get to a point at which you can all agree on how your activities are expected to lead to your outcomes and impacts. So, focus on generating agreement among the group rather than alignment with your own ideas.
- Allowing important issues or anticipated results to 'fall off' the model.** Sometimes, it is complicated for the group to clearly illustrate how you expect a particular result to emerge. Choosing to ignore this rather than working through the conversation to reach agreement is a potentially fatal flaw for your model.



G. Templates and Supporting Materials

1. How to use your causal model to develop a logframe.

Many donors will require that you include a 'logical framework' in your final proposal and many organizations use this as a foundation for their project designs. Despite this, logical frameworks are frequently criticized as being overly linear, poorly applied and infrequently used. The reasons for this and the validity of the arguments against logical frameworks have been greatly discussed in development circles and, for those wanting more information, a quick internet search will bring up any number of resources or debates.

The purpose of this addendum is not, however, to make a judgment on logframes. This addendum outlines:

- What a logical framework is,
- The terms used by different donor agencies for elements of the logical framework,
- How design teams can translate their final causal model into any number of logical framework formats used by various donor agencies.

A recent review¹ found that “when people speak of the logical framework, they are referring to a matrix with both:

i) a vertical logic as a hierarchy of objectives – *activities* deliver *outputs*, which contribute to *outcomes*, which help bring about the overall *goal*;

ii) a horizontal logic showing how progress against each objective can be assessed (indicators and means of verification) and the external factors (assumptions and risks) which might affect whether the reaching of the objectives will contribute to the next level.”

Within this basic format, many donor agencies and NGOs that use logical frameworks have developed somewhat different terms for the various elements of the matrix. The table below outlines some of these distinctions.

As the “Logframe Rosetta Stone” demonstrates, the adaptations to logical frameworks are multiple with different agencies requiring different categorization.

By contrast, causal models, particularly those for internal purposes, can take the form that is most useful to the design and implementation team. Once a causal model is articulated, teams can follow these steps to translate the model into any number of logical framework formats:

1. Identify the categories the donor is using and line these up with the categories you have used in your causal model – see the bottom row of the Rosetta Stone table (pg. 26-27) for an illustration of how to do this. This will almost certainly require trade-offs as donors use different categories.
2. Transfer your interventions, outputs, leading and lagging outcomes and impacts to the preferred donor format.
3. Review your assumptions and see where they are best positioned within the logframe. You will also likely need to articulate additional causal assumptions as you go through this process to show how each link in the chain is validated.
4. The next step requires teams to go beyond their work in the design process so far by identifying indicators and targets associated with each result – outputs, outcomes and impacts. It is strongly recommended that to complete this process, you work in partnership with a skilled monitoring and evaluation advisor to ensure the indicators and targets selected are practical, will serve the goals of the implementation team, and meet accountability requirements to the donor and project participants. Once these are presented to a donor, they often become increasingly difficult to adjust. The CARE Guidelines on M&E System Design for Value Chain Initiatives (forthcoming) is a reliable source of information on

¹ The Use and Abuse of the Logical Framework Approach, SIDA, NOVEMBER 2005 • OLIVER BAKEWELL & ANNE GARBUTT



completing this process. The DCED Standards for Results Measurement Implementation Guide is another good resource.

5. Finally, once you have completely filled out the logframe template, review the full table and be sure to compare it to your original causal model. Does the logframe table effectively include the most important aspects of the causal model? Are there any areas where the logframe appears to go beyond the initial causal model? If so, the team should review these to adjust the logframe to ensure it reflects the project design.

2.

COMPARISONS BETWEEN TERMINOLOGIES OF DIFFERENT DONOR AGENCIES for RESULTS / LOGICAL FRAMEWORKS

Adapted from original compiled by Jim Rugh for CARE International and InterAction's Evaluation Interest Group

	Ultimate Impact	End Outcomes	Intermediate Outcomes	Outputs	Interventions	
<i>Needs-based</i>	<i>Higher Consequence</i>	<i>Specific Problem</i>	<i>Cause</i>	<i>Solution</i>	<i>Process</i>	<i>Inputs</i>
CARE terminology¹	Program Impact	Project Impact	Effects	Outputs	Activities	Inputs
CARE logframe	Program Goal	Project Final Goal	Intermediate Objectives	Outputs	Activities	Inputs
MEDA logframe ²	Goal / Impact	Project Purpose / Outcomes		Outputs	Resources (inputs / activities)	
PC/LogFrame ³		Goal	Purpose	Outputs	Activities	
USAID Results Framework ⁴	Strategic Objective	Intermediate Results		Outputs	Activities	Inputs
USAID Logframe ⁵		Final Goal	Strategic Goal/ Objective	Intermediate results	Activities	202E
DANIDA + Dfid ⁶	Goal		Purpose	Outputs	Activities	
CIDA ⁷ + GTZ ⁸	Overall goal		Project purpose	Results/outputs	Activities	Inputs
European Union ⁹	Overall Objective	Project Purpose	Results	Activities		
FAO ¹⁰ + UNDP ¹¹ + NORAD ¹²	Development Objective		Immediate Objectives	Outputs	Activities	Inputs
UNHCR ¹³	Sector Objective	Goal	Project Objective	Outputs	Activities	Input/Resources
World Bank	Long-term Objectives		Short-term Objectives	Outputs		Inputs
AusAID ¹⁴	Scheme Goal		Major Development Objectives	Outputs	Activities	Inputs

¹ CARE Impact Guidelines, October 1999.

² MEDA Program Design for Value Chain Initiatives Toolkit, 2007

³ PC/LogFrame (tm) 1988-1992 TEAM technologies, Inc.

⁴ Results Oriented Assistance Sourcebook, USAID, 1998.

⁵ The Logical Framework Approach to portfolio Design, Review and Evaluation in A.I.D.: Genesis, Impact, Problems and Opportunities. CDIE, 1987.

⁶ A Guide to Appraisal, Design, Monitoring, Management and Impact Assessment of Health & Population Projects, ODA [now DFID], October 1995

⁷ Guide for the use of the Logical Framework Approach in the Management and Evaluation of CIDA's International Projects. Evaluation Division.

⁸ ZOPP in Steps. 1989.

⁹ Project Cycle Management: Integrated Approach and Logical Framework, Commission of the European Communities Evaluation Unit Methods and Instruments for Project Cycle Management, No. 1, February 1993

¹⁰ Project Appraisal and the Use of Project Document Formats for FAO Technical Cooperation Projects. Pre-Course Activity: Revision of Project Formulation and Assigned Reading. Staff Development Group, Personnel Division, August 1992

¹¹ UNDP Policy and Program Manual

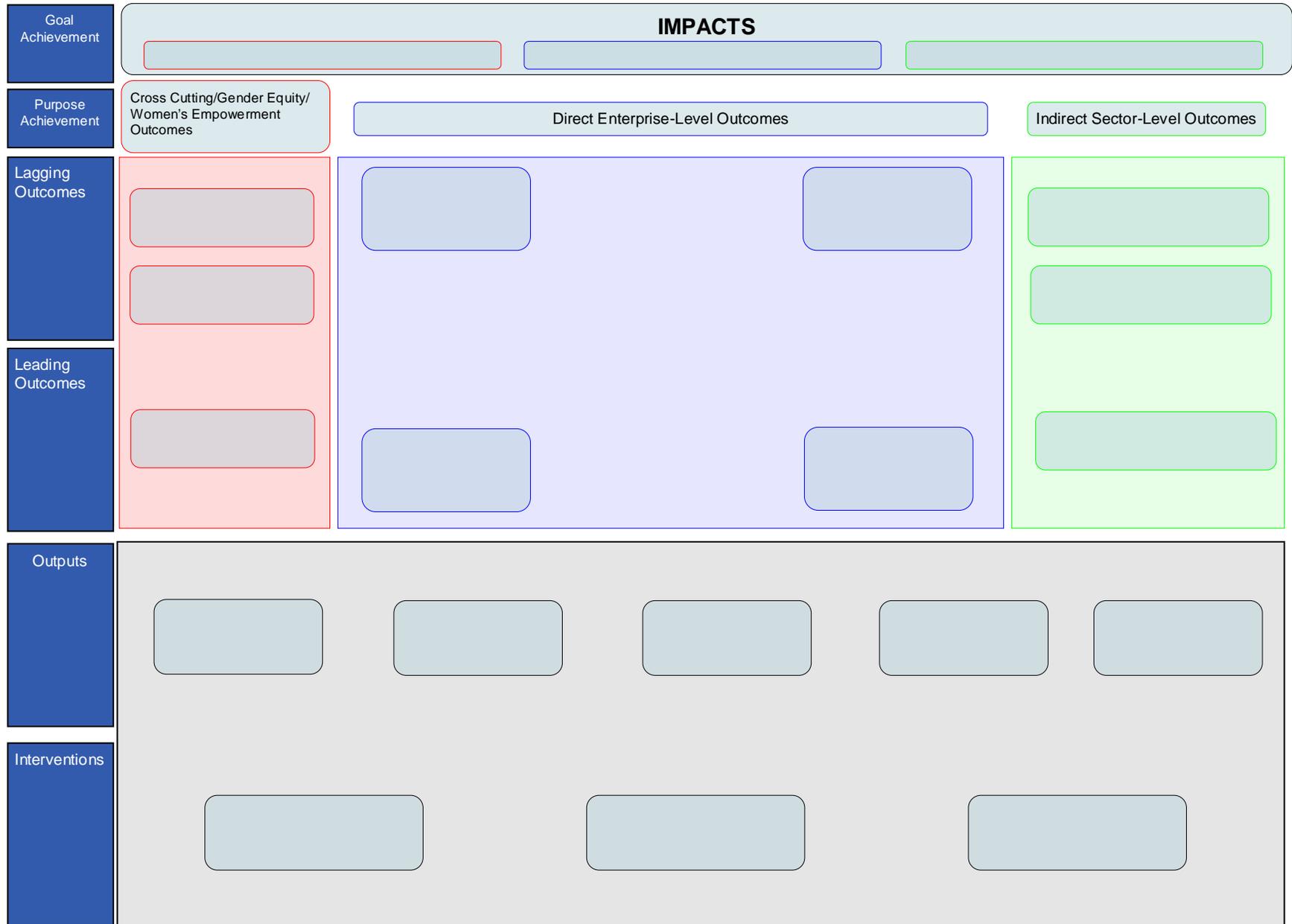
¹² The Logical Framework Approach (LFA). Handbook for Objectives-oriented Project Planning.

¹³ Project Planning in UNHCR: A Practical Guide on the Use of Objectives, Outputs and Indicators for UNHCR Staff and Implementing Partners. Second Ver. March 2002.

¹⁴ AusAID NGO Package of Information, 1998

	Ultimate Impact	End Outcomes	Intermediate Outcomes	Outputs	Interventions	
<i>Needs-based</i>	<i>Higher Consequence</i>	<i>Specific Problem</i>	<i>Cause</i>	<i>Solution</i>	<i>Process</i>	<i>Inputs</i>
CARE terminology¹	Program Impact	Project Impact	Effects	Outputs	Activities	Inputs
CARE logframe	Program Goal	Project Final Goal	Intermediate Objectives	Outputs	Activities	Inputs
MEDA logframe ²	Goal / Impact	Project Purpose / Outcomes		Outputs	Resources (inputs / activities)	
PC/LogFrame ³		Goal	Purpose	Outputs	Activities	
USAID Results Framework ⁴	Strategic Objective	Intermediate Results		Outputs	Activities	Inputs
Value Chain Causal Model		Goal	Lagging Outcomes	Leading Outcomes	Outputs	Interventions

3. Value Chain M&E Causal Model Template



Module 3: Assess the Initiative's M&E Resources & Capacity

A. Objective

Step 3 is about mapping your resources and capacity so you can make good decisions as you continue the M&E system design process, particularly when you begin to select indicators, tools and information management processes. This step can also help you to generate an initial estimate of how much money and capacity you really need for M&E. For projects that have already been awarded, this process will also help you to identify any gaps between what is budgeted and what was designed for the initiative. Many M&E budgets in proposals are limited (unfortunately!) to the cost of doing baseline studies and evaluation costs through external consultancies. This often leaves a large gap when it comes to using resources for day-to-day monitoring and learning – requiring creative solutions to overcome.



Note:

Experience has shown that value chain initiatives tend to underestimate the resource and capacity demands of M&E activities and often end up designing systems that are too complex, expensive or unrealistic. It is important to be realistic in assessing the resources and capacity available to the initiative as you design your M&E system.

B. Overview

Of all the factors that determine the design and effectiveness of the initiative's M&E system, perhaps none are more important than the resources and capacity available to the initiative to carry out M&E.

Even the 'best' M&E system on paper is of little practical use if the initiative lacks the resources or capacity to implement it. The most effective M&E systems are the ones that match the system's purpose and design with the project's ability to implement it. This often requires projects to make pragmatic compromises between the ideal and the feasible, or between 'best practice' and 'good enough practice' because, if there is one place in which M&E systems consistently fail, it is when they try to do more than they are realistically capable of achieving.

As you go about mapping your project's resources, there are three areas that need to be considered:

1. Financial capacity to do M&E – Money
2. Human capacity to do M&E – People, skills and knowledge
3. Physical capacity to do M&E – Equipment, technology and machines.

Once you have collected information on each of these areas, you will conclude this step by reflecting on the implications of your resources and capacity for the M&E system design.

C. Materials and Inputs Required

This step of the M&E system design process is best completed initially by a small group, particularly on questions of budget. So, if you are working on a project that has already been awarded, you will need to have the budget available and likely the project manager so that you can look at the financial picture holistically (often times, there's potential M&E money in budget lines that are not clearly labeled "M&E", such as consultancies, travel and workshops). In looking at human capacity, you may want to engage field staff and others that you anticipate contributing to the M&E system in an exercise of self assessment.

So, key inputs for this step are:

- Anticipated or actual budget
- Project manager
- Possibly, project staff.

D. Step-By-Step Process

To complete “Module 3: Assess Resources and Capacity”, follow these four steps:

STEP 1: ASSESS THE INITIATIVE’S FINANCIAL RESOURCES TO IMPLEMENT M&E

Budget limitations are consistently one of the greatest constraints to implementing M&E. While projects can often compensate for a lack of technical capacity through training and/or outsourcing, they cannot compensate for the lack of money. Carrying out M&E costs money and, depending on how ambitious you are about your M&E system, it can cost a lot of money. Although at this stage in the M&E design process you have not made decisions about what your system will include, it is important to generate an initial understanding of what resources are or could be available to support M&E on the project. In order to do this, you will want to consider the following potential expenses and either assess the current budget, if you already have one, or begin to calculate what these costs will be over the life of the initiative:

- Direct M&E staff salaries;
- Indirect salary allocations of management and field staff to support M&E;
- Outsourcing costs for services such as data collection, data analysis, or training;
- Travel budgets to support M&E meetings, retreats, field visits, etc.;
- Consulting budgets to support baseline, midline and endline evaluations, as well as action research;
- Hardware costs for tools such as PDAs, GIS devices, software (e.g., statistical programs), and even mobile phones or tablet computers, which are increasingly becoming important M&E tools;
- Communications costs including website development, newsletters, etc.;
- Publications and media development costs to ensure you have high-quality materials to share with various M&E clients.

Since the M&E system has not yet been designed, your goal at this stage is to develop a clear understanding of what financial resources are directly and indirectly already available for M&E or that you anticipate needing.

To complete this step in the process:

1. Brainstorm the potential costs or line items you think you will need for M&E.
2. If the project has already been awarded, review the budget to see how much money has already been allocated to these areas. If you are still in the design phase, gather information from past projects on M&E costs for those line items and develop an initial estimate of M&E costs to give yourself a starting figure to work from as you move ahead.
3. Capture your information in the draft M&E Budget Worksheet (pg. 34).



Note:

In working through the M&E budget, you may also want to investigate additional sources of funding to support its M&E activities. There are often donors interested in funding research proposals submitted by value chain initiatives and CARE lead members can come in handy here in helping you to find them.

Another common tactic taken by CARE projects is to engage research assistants, graduate students and interns on an interim basis to pursue strategic analyses and studies.

Getting additional resources to support M&E will require a proactive, entrepreneurial approach, but it can be done. Be careful though – if you are too ambitious, you can quickly overwhelm yourself and your colleagues.



Tool: M&E Budget Worksheet

This worksheet will help you keep the M&E system financial data organized and assess if/where you have gaps. (pg. 34)

Moving forward, you will continually come back to this worksheet to update and modify the anticipated costs based on other decisions. At the end of the process, it will help you to see if you have a financial gap that needs to be filled from other portions of the project budget or other external sources.

STEP 2: ASSESS THE INITIATIVE'S HUMAN RESOURCES NEEDS AND CAPACITY FOR M&E

M&E systems do not implement themselves. They require people to carry out information collection, data analysis, report preparation, sharing, reflection and information dissemination. So, as you design your system, you need to understand who these people are, what skills and knowledge they have and the overall level of human resources available – both within the team and externally – to support your M&E system.

To complete this step in the process:

1. Brainstorm the technical skills you anticipate the M&E system will need. These may include:
 - a. Information collection, analysis and management,
 - b. Design and operation of computerized information systems,
 - c. Report and/or publication preparation,
 - d. Communications,
 - e. Evaluation or action research design and oversight,
 - f. Strategic thinking,
 - g. Reflective practice,
 - h. Etc.
2. Identify all individuals with a direct and indirect responsibility for M&E including:
 - a. CARE Core M&E Staff – Staff assigned to the project to conduct M&E;
 - b. CARE Supporting M&E Staff – I.e. Learning and Impact Unit or Monitoring, Evaluation and Learning Unit staff, program M&E staff, etc.;
 - c. Implementing Partner Core M&E Staff – If you will work with partners, who has been assigned to support the M&E effort?
 - d. Research partners – This would include an external partner to conduct the baseline, midterm and final evaluations as well as any additional research;
 - e. Field staff and/or others you expect to collect data or contribute to project learning but whose primary job may not be M&E.
3. Use the M&E Human Capacity Worksheet (pg. 35) to capture the technical skills you have listed (top row of the sheet) as well as the individuals you have identified (left column of the sheet).
4. Now, in your worksheet, fill in the following for each individual or unit you have listed:
 - a. What percent of this person's time will be dedicated to the M&E activities for the initiative?
 - b. What is the responsibility of each person? What skills and capacity do they bring to the M&E system?
 - c. Are the responsibilities clearly outlined in each person's official job description or will they be? For CARE staff, are these included in their E-APAA / IOP?
5. Using your worksheet, identify which individuals or units you anticipate taking on the tasks you have identified in the top row. You can simply mark the boxes with an "X" where individuals intersect with a particular task / role. (Note: Your response at this stage should be based on expectations from past experience. If you are unsure, you may want to check with someone with more M&E system design



Tool: M&E Human Capacity Worksheet

This tool will help you to capture information on the technical skills needed for the M&E system and the human capacity you have or the gaps that exist. (pg. 35)

experience. You will also come back to this step later in the process to ensure you have the resources you need.)

6. Finally, reflect on your matrix and answer the following questions:
 1. Do the individuals and units identified have the technical capacity to carry out the anticipated M&E functions?
 2. If not, what is the gap between the necessary technical capacity and the existing technical capacity?

List your considerations or concerns in the “Human Capacity Assessment Summary” cell in the Excel sheet. You will come back to these issues as you continue to develop the M&E system.

STEP 3: ASSESS THE PHYSICAL RESOURCES TO IMPLEMENT M&E

Physical resources for M&E include: computers and other hardware; software for data storage and analysis, such as Excel or SPSS; motorized and non-motorized vehicles for transporting personnel to information collection activities; and telephones and/or mobile phones and GIS tools. Although not technically a ‘physical resource’, internet connectivity and mobile network access are also important resources that facilitate M&E functions, such as data collection, information dissemination, teleconferencing and secondary research.

To complete this step in the process:

1. Brainstorm the physical resources you anticipate needing for your M&E activities.
2. For each resource, ask whether you have or can readily access them directly or through existing partners.
3. If not, and you are working on a project that has already been awarded, assess whether you can fill this gap through the existing budget. If you are working on a proposal, assess what it would cost to fill this gap and whether you can realistically build this into the project budget.
4. If you do not think you can fill the budget gap, mark this as an issue to be taken into consideration as you advance the M&E system design process.

STEP 4: REFLECTION ON THE IMPLICATIONS FOR THE M&E SYSTEM DESIGN

Once you have consolidated all of the resource information, review your findings and generate some initial conclusions on what this means for your overall M&E system. At this stage, you cannot make definitive conclusions but, considering your M&E client map and the resources and capacity you anticipate the project would have, what issues do you see emerging that you need to consider as you move ahead? Are there key capacity gaps that you anticipate? Do you think you have the resources to meet all of the priority client demands? Is capacity equal across the implementing partners or will you need to develop strategies for capacity building? Do you expect to need new technologies?

With these questions in mind, develop a high-level summary of the resource picture and considerations as you advance the design process. This summary should be validated with key decision makers, such as project managers, assistant country directors for programming and economic development team leads. All parties should generally agree on the resource picture before you go ahead with the M&E design process.

E. Common Pitfalls in this Step

- Initiatives do not adequately assess their M&E resources and capacity.
- Initiatives do not match the M&E design to their M&E capacity and resources. This is perhaps the single greatest pitfall value chain initiatives encounter with M&E. Initiatives almost invariably underestimate the technical and resources requirements for M&E.
- Initiatives do not manage client expectations, in many cases because the initiatives themselves do not understand the capacity and resource demands of M&E.
- Initiatives do not scale down their M&E plans sufficiently when confronted by M&E capacity and resource demands.
- Initiatives fail to consider the political aspects of M&E involved in budget and resource allocations, use of information, dissemination of information, etc. The potential benefits of information (including information collection and unfavorable information) are frequently perceived to be low compared to their potential costs.
- Initiatives overestimate client support for M&E. There is often an inconsistency between the rhetorical support for M&E and its actual support. Supporting M&E in the abstract is easy (most people do), but it is quite another thing to support it in practice, particularly when resources, reputations, and careers are at stake.
- Clients treat unfavorable information in a way that creates disincentives to generate and disseminate information, which makes it difficult in turn to use information productively. It should be assumed at the outset that actual results will vary at times from expectations given the complex environments in which value chain initiatives operate. While poor results might indeed reflect poor planning or implementation, it should not automatically be perceived as such. The purpose of M&E, after all, is not only to determine what has happened, but why it has happened.
- Initiative management de-emphasizes M&E and/or fails to provide it with consistent and visible support.
- M&E is viewed by initiative management and staff as a separate function (or in other words, as a non-core function) to be done periodically and then primarily for external clients.
- Clients are primarily interested in positive results and either ignore or punish bad news, thereby discouraging learning and adaptive management.

F. Templates and Supporting Materials

1. M&E Budget Worksheet

Budget Item	Available budget	Comments
M&E FUNDS		
M&E staff positions / salaries		
Evaluation (baseline, midline, endline studies)		
Monitoring system design and data collection		
Research, studies (from consultancy lines)		
Events – training workshops, learning events, routine meetings		
Technology - GIS mapping, mobile phones, etc		
Total available M&E funds		

2. M&E Human Capacity Worksheet

Individual / Unit	% time M&E	M&E Technical Skills Needed				
- M&E Officer						
- Project Manger						
- LME Unit Director						
- ACD/P						
- M&E Regional Coordinator						
- Field Staff						
- Data collection partner						
- CBO partner M&E staff						
- CARE USA EDU						
Summary Assessment of Human Capacity						

Module 4: Select Performance Indicators

A. Objective

In this step, you will analyze your causal model to identify key linkages and the results you want to monitor and measure. Based on this, you will select the indicators you will track through your M&E system. One key distinction you will address in this process is identifying which indicators you will track through traditional, routine measurement and which indicators you will track through routine observation.¹

B. Overview

The causal model you developed in Chapter 2 establishes a foundation for indicator selection. This chapter:

- Discusses the types of indicators you will include in a value chain project M&E system;
- Provides guidance on a participatory process for identifying key linkages and assumptions in the causal model and formulating indicators to track them;
- Introduces criteria for assessing what makes a good indicator;
- Outlines CARE's Universal Indicators for Market Engagement, which are applied to all CARE value chain projects.

Types of Indicators to Include in a VC Project M&E System

For a value chain project, M&E system design teams will need to identify two types of indicators:

Indicators you will track through routine measurement

These are indicators you will track using traditional M&E tools – surveys, focus group discussions, etc – on traditional M&E timelines – monthly, quarterly, semi-annually, beginning/middle/end of project.

These are the indicators on which traditional projects focus most of their M&E efforts.

Indicators you will track through routine observation

These are indicators you will track using non-traditional M&E tools – staff observation, team reflections, meetings and after action reviews – on traditional but also non-traditional M&E timelines – daily, weekly or whenever staff learn something important about that indicator.

Tracking these indicators helps us learn and make decisions more quickly.

Why do we include both types of indicators in a VC project?

The focus of value chain project M&E systems on indicators tracked through routine observation in addition to those tracked through routine measurement is probably the single greatest difference between an M&E system for a value chain project and an M&E system for other types of economic development projects. So, why do we do this?

Value chain project teams – a key client of the M&E system – rely on M&E to provide them with the information they need to make good decisions in a constantly changing environment. To do this, they need to monitor changes that they can measure through traditional M&E tools including periodic surveys, focus group discussions, etc. These methods are focused on ensuring the project has rigorously-gathered, highly-precise and more objective data that can be used to guide decisions.

¹ It is important to acknowledge that while routine observation is, in and of itself, a form of measurement, it has been applied less frequently and less systematically in practice than what have become more traditional measurement approaches including surveys, interviews and focus group discussions. In distinguishing between traditional routine measurement and routine observation, our objective is to provide M&E system designers with a way of focusing project teams and other M&E clients on the importance of both practices in meeting their diverse needs and expectations.

However, since markets – and the individuals that operate within them – are constantly changing, teams cannot assume that they will always be able to rely on explicit (documented, rigorously gathered) data when they need to make decisions. In these instances, they need to rely on the collective experiential (or tacit) knowledge of their team members, i.e., knowledge they have gained through observation and trial and error.

The problem is staff members are experiencing and observing so many factors at once that, without focus, it is nearly impossible to ensure they are continually asking themselves the questions that have the greatest significance for the project's overall success.

To support staff and focus their observations, we identify priorities and set up indicators we will monitor through routine observation. We call these “observable indicators,” and they are core elements of the M&E system. Routinely tracking observable indicators ensures that project managers and field staff have the best possible information available to them when they need to make decisions, even if this does not fit in the traditional measurement and/or donor reporting timeline. An added benefit and important function of identifying observable indicators is that it increases the project's focus on continual learning and reflective practice – critical aspects of any successful value chain project.

What makes a good indicator?

Determining whether an indicator is good or bad will vary based on whether it is an indicator you will track through routine observation or an indicator you will track through routine measurement.

Indicators to be tracked through routine measurement

Indicators to be tracked through routine measurement are ‘good’ if they meet the S.M.A.R.T test. This means determining whether an indicator is:

- **Specific** – This means that the indicator is clearly defined and that all of the words in the indicator (household, child, enterprise, etc) have common definitions used by the project.
- **Measurable** – This means the indicator can actually be captured using M&E tools. For instance, you may not be able to measure food security directly but, you can measure factors associated with food security like ‘number of months without enough food in the house.’
- **Achievable** – This means that you have the resources to measure the indicator feasibly. Identifying an indicator like, ‘increase in GDP in the target district,’ will mean little unless you can rely on data from some other source since CARE could not meaningfully capture this.
- **Relevant** – This means the indicator provides information that is of priority interest to one or more of the key clients of the M&E system.
- **Time-bound** – This means that there is a clear definition of when the change is expected to materialize.

Applying this test to prospective indicators to be tracked through routine measurement will tell you if an indicator allows you to meaningfully and precisely measure change.

Indicators to be tracked through routine observation

Determining whether an indicator to be tracked through routine observation is ‘good’ can be more difficult, but this can be achieved through simple participatory exercises. Indicators to be tracked through observation are primarily designed to support project management and field staff decision making. So, these indicators are often more open ended than indicators you would routinely measure. They are designed to ensure that field staff and project managers continually ‘keep an eye on’ certain anticipated changes – primarily changes in the behaviors and attitudes of the project impact group or target group members – in order to assess whether the project's most significant or ‘killer’ assumptions appear to be valid.

To develop ‘good’ indicators for observation, M&E system designers need to ensure that project managers, implementing staff and partners agree that these indicators are linked with the project's killer assumptions.

Since the indicators will be designed primarily to benefit project management, it is important to use participatory processes to identify and revise them. (This is another key difference between indicators for routine measurement and indicators for routine observation. The indicators for routine observation can be revised on a regular basis in order to suit the evolving information needs of the project implementation team, while the indicators for routine measurement will largely remain the same over the life of the project to ensure project M&E can provide reliable evidence of impact in the future.)



Case Example: When it Makes Sense to Track an Indicator through Routine Observation

Consider a project that has an objective of using periodic input supplier fairs in rural areas (their intervention) to increase smallholder demand for inputs and increase input supplier interest in pursuing the smallholder market (two anticipated outcomes). The key assumption in the causal model in relation to input supply companies is that the fairs will demonstrate to the companies that smallholder demand in rural areas is strong and this market segment represents an untapped opportunity to increase suppliers' sales. This will, in turn, lead to an increasing number of suppliers attending the fairs and pursuing the smallholder market (i.e. create products that are appropriate for and available to smallholders in rural areas).

The project could choose to test this assumption in many ways, including periodic surveys, key informant interviews, formal observations conducted by the M&E team, etc. However, in the short run these methods may be too costly and time-intensive to meet the needs of project field coordinators and the project manager, who will need to modify the approach quickly if it turns out that suppliers are uninterested in the fairs.

Identifying an indicator to be monitored through routine observation might be the most effective way of ensuring the project is on track in this case. It will also enable the field coordinators to learn from one another. So, everyone is continually improving the way they organize and market the fairs, how they invite suppliers, etc.

To do this, the project team might establish the following indicator to be tracked through routine observation, "Following each supplier fair, the project observes a substantial increase in supplier interest in attending supplier fairs." Through discussions with field staff and partners – and input suppliers themselves – the M&E system design team could help to define what is meant by "substantial" and how to judge whether an action by a supplier (an email or text after the event, a request for a meeting, a conversation in the car ride back to the town where the supplier has her office, etc) represented a demonstration of increased interest. Including this information in monthly field reports or even regular meetings would enable the project to quickly assess whether the project strategy was working and thus make decisions based on this information – particularly if initial indications are that the key assumption is actually wrong. In well-designed M&E systems, these observations are later validated through routine measurement exercises, such as an annual series of key informant interviews with input supply company representatives.

Note: This example is based on the actual experiences of the CARE ADAPT Project in Zambia.

Regardless of whether an indicator will be tracked through routine observation or routine measurement, the following criteria should always be applied when choosing indicators for CARE value chain projects:

- **Ethical** – This means the collection and use of the indicators should be acceptable to those providing the information.
- **Cost-effective** – This means the indicator is the least expensive option for reliably gathering data on the causal linkage being tested by the project.

Ultimately, choosing appropriate indicators is an art that requires experience and skill, but teams can and will get better over time. The key is to continually focus on the basics – who are the clients of the M&E system, what resources and capacity do we have to meet their needs, what are our project's objectives and killer assumptions, and how can we use the simplest system possible to ensure we are able to meet

the needs of our priority M&E clients? The Step-by-Step process outlined in this chapter provides guidance on identifying your project indicators. Before that, however, the following paragraphs outline a set of universal indicators to be tracked through routine measurement by all CARE Market Engagement Projects.

Universal Indicators for Market Engagement at CARE

Individual country offices, programs and projects will use a wide range of indicators to track impacts over time. However, a limited number of indicators, along with definitions and measurement standards, have been identified to serve as universal indicators for CARE's work in market engagement. Each of these indicators is expected to be integrated into CARE market engagement project M&E systems and to be routinely measured. The indicators provide the data necessary for CARE to assess our global performance, conduct analyses of impact across projects, more efficiently identify what works and share lessons learned within the organization. (For more information on these indicators, definitions, measurement standards, etc., refer to the Universal Market Engagement Indicators on page 48.)

Identifying Critical Links and Indicator Selection

Some projects may be able to identify an indicator for each change defined in their causal model. However, for many projects, due to a lack of resources, time, technical capacity or need, it may not be possible or appropriate to collect information and report on all changes anticipated in the causal model. In this case, staff must first identify the changes that are most central to the project's success and then develop a set of 'key performance indicators' aligned with these changes. To do this, M&E system designers need to engage the project team and partners in an exercise to prioritize key assumptions in the causal model and then to develop indicators around those. In this way, staff members are able to focus the M&E system on the things that are most important to track. Guidelines for doing this are included in the Step-by-Step process below.

C. Materials / Inputs Recommended

- Causal model
- M&E client map
- Donor indicator list
- CARE CO program and global indicator lists
- Key team members and/or partner representatives

D. Step-by-Step Process

STEP 1: DEFINE YOUR IMPACT INDICATORS

Your impact indicators will be the metrics you use to determine if your project has achieved its ultimate goal. In selecting your impact indicators, it is important to consider what success truly looks like and what set of indicators can best, and most realistically, generate the data you need to assess.

For all market engagement projects, you will want to identify impact indicators at the household level and, potentially, at the enterprise and sectoral levels.

Thankfully, you typically will not need to develop your impact indicators from scratch. At this level, you should be tracking indicators that align with the priorities of a range of the key clients of the M&E system, including the Country Office (program measurement indicators), the donor, the national government and CARE globally (the Universal Market Engagement Indicators on page 48).

Review these indicators first to determine which are most appropriate for your project. If necessary, you can then add additional indicators or tailor these high-level indicators to the precise needs of your project.

Once you have identified your impact indicators, you will transition to develop indicators that illustrate how your interventions will lead to these results.



Warning! One common mistake we make when we select indicators is to try to measure too many things. This leads to an M&E system that is unreliable and unrealistic. Refer back to your Resources and Capacity Assessment to be sure the indicators you are selecting are realistic, and whenever you can gather the data you really need with one indicator instead of two, choose one! The more efficient you are in identifying a narrow but meaningful set of indicators, the more resources (human and financial) you will have available to focus on analysis and actually putting the data to use.

STEP 2: IDENTIFY AND DEFINE THE CRITICAL ASSUMPTIONS IN YOUR CAUSAL MODEL

With your impact indicators clearly defined, you now need to work your way along each pathway in your causal model to develop indicators at the other levels – outputs, leading outcomes, and lagging outcomes. This process usually begins simply enough, with teams identifying anticipated outputs for each intervention. Outputs are by far the easiest indicators to define. These will be easily countable results of activity implementation. For instance, the number of trainings conducted, the number of producer groups established, etc. You will capture these through routine activity monitoring.

As you move up the causal model to leading and lagging outcomes, however, your decisions will become more complex and challenging. Frequently, design teams try to identify an indicator for every change they anticipate materializing over the life of the project. This approach leads to one of the most persistent shortcomings of M&E systems – designing a system that attempts to capture data on too many indicators, making it impossible to analyze and use the information collected.

To avoid this, M&E system designers need to:

1. Remain focused on the needs of M&E clients throughout the design process. Who are the priority clients of the M&E system? What data do we need to generate in order to meet their needs? And, if the priorities of different clients clash (for instance the donor and the project field staff), whose will we prioritize and why?
2. Prioritize the most critical assumptions in the causal model so they can narrow the range of changes they will actively measure.

In order to achieve this second point, M&E system designers need to pursue a participatory process by engaging field staff, managers and partner representatives. The text box below provides a recommended activity that has been developed and tested with multiple CARE projects over the past two years.



Tool: Identifying and Prioritizing Assumptions in Your Causal Model

Objectives: To get key M&E clients to a) articulate the assumptions in the causal model, and b) identify those that they feel are most critical to success.

Format: This exercise works best with a group of between 10 and 15 M&E clients, though you could do it with more. You will need plenty of wall space and some small tables for teams of 4-5 people.

Materials: You will need a projector, laptop, flip chart paper, markers and, ideally, plenty of small stickers of different colors (for voting).

Time: The time required will vary depending on the number of M&E clients and project complexity but should be no less than 1 hour for a simple exercise and can be $\frac{3}{4}$ of a day or more for a large-scale program.

Step-by-Step:

1. First, have participants join small group tables. Use the projector to put the causal model on the screen and review this with the team. Make sure everyone agrees on the model and then inform them of the activity objectives (see above).
2. Assign each small group a couple of causal pathways – i.e. the chain that connects a particular intervention in the causal model to the final impacts of the project – and ask the groups to identify the assumptions being made about how one action or result will lead to the next. (NOTE: You will probably want / need to provide some examples first and/or have the entire group complete the first causal pathway together so everyone understands the exercise.)
3. Once groups feel they have identified all of the assumptions for a particular causal pathway, have them list these on flip chart paper, illustrating how they connect the anticipated results. Ultimately, you should have one flip chart of assumptions for each causal pathway.
4. Post the flip charts on the wall and have teams review one another's assumptions. Most likely, some groups will come up with the same assumptions. Facilitate a discussion to see if there are redundancies and, if so, eliminate repeated ideas so you have a wall filled with original assumptions (i.e. only one iteration of each assumption, no repeats).
5. Next, give each participant a stack of stickers if you have them or simply have them use markers of different colors. They will use these to vote on the following two questions:
 - a. Which assumptions, if true, do you feel have the greatest potential to advance a breakthrough that improves the lives of large numbers of our impact group?
 - b. Which assumptions, if false, do you feel pose the greatest potential risk to large numbers of our impact group?Each participant should be given a designated number of votes for each question. Ten votes per question is a good base to start from but ultimately you will need to decide based on the number of assumptions, participants, etc.
6. Lastly, tally the votes in an Excel sheet or simply arrange them on stickies on the wall and facilitate a discussion on the findings. Do you see a lot of agreement on the greatest potential advantages and the greatest potential risks? If so, prioritize those assumptions – and the results associated with them – in your M&E system. If not, explore why not and continue the dialogue to bring in other considerations, such as priorities of key clients not participating in the meeting, in order to narrow your list of potential assumptions to a reasonable number. You will use this list to develop your key performance indicators for routine measurement and observation.

STEP 3: DEVELOP INDICATORS FOR YOUR OUTPUTS AND LEADING AND LAGGING OUTCOMES

Once the priority assumptions have been identified, M&E system design teams can turn to identifying indicators for outputs, leading outcomes and lagging outcomes.

Begin your indicator selection process by reviewing existing indicators used by key M&E clients.

As you review the following resources, keep track of indicators that potentially align with your project:

- **Donor requirements.** Most donors, and particularly bi-lateral donors, have established common indicators to be measured under any intervention they fund. At the outset of the indicator selection process, project teams should review these requirements to assess which may be relevant.
- **Country Office Program Impact Measurement Frameworks.** As CARE more broadly adopts the Program Approach, several COs have identified common program-level impact indicators. New market engagement projects should align with these systems, or, if the CO is still developing an impact measurement system, new market engagement projects can serve as a critical platform to learn which indicators should be monitored at a program level.
- **CARE's Universal Indicators for Market Engagement.** The Universal Market Engagement Indicators table on page 48 at the end of this chapter lists key indicators that should be tracked by all CARE market engagement projects and a number of recommended indicators. These are based on CARE's Market Engagement Strategy as well as emerging global standards, such as the DCED Results Measurement Standards.
- **Other relevant projects operating within the country.** Many times, M&E systems are designed without reviewing what other, non-CARE projects are already measuring. Tracking the same indicators makes it easier for projects to learn from one another and to compare results.
- **CARE's global impact measurement system.** CARE's global impact measurement system should serve as a guide in indicator selection, particularly at the impact level. Not only will incorporating indicators from that system ensure that your impacts can be associated with MDG achievement, they will also enable comparisons to be made between your project and projects across CARE.
- **Government measurement systems.** Aligning project indicators and measurement tools with those used by the government can sometimes present important opportunities to support advocacy.



Tool: Market Engagement M&E Indicators Table.

At this stage, it makes sense to begin to consolidate your M&E information. Page 44 provides a template that will capture the key changes, indicators, targets, and other key aspects of your M&E system as you develop them. Use this throughout this step, or if the donor requires a particular format for a performance management table, you can use that.

Once you have reviewed these resources and identified indicators that seem to be relevant to your project, you will need to develop indicators for all outputs and outcomes. The easiest way to achieve this is to start with a particular intervention and work through the causal pathway until you link to your impact level indicators. So, decide with your team to start with one intervention and trace the causal pathway that links this indicator to outputs and then to leading and lagging outcomes in your causal model. For outputs you will simply list the number of activities to be completed or people to be trained, etc. For leading and lagging outcomes, you will need to develop indicators for routine measurement as well as indicators for routine observation for particularly important changes or assumptions in the causal model.

The indicators you identify can be added to the Market Engagement M&E Indicators Table (found on page 46).

Once you have completed this process for one intervention, choose a second and repeat the process until you have identified indicators for each causal pathway. Remember as you do this to focus on the needs of M&E clients as well as the key assumptions you have prioritized – indicators should be aligned with these priorities and not simply measure what is easy to capture or what we personally feel might be interesting.



Note: Considering Indicators of Change at the Sector Level

In the Introduction to this guide, a number of unique attributes of value chain projects are presented, including the explicit intention to stimulate changes across the value chain through our direct interventions. Since we are purposefully trying to get other market actors, poor households, government agencies, etc. to either copy what we are promoting or try to otherwise get engaged without our direct intervention, we face a unique challenge in identifying indicators.

As you develop your indicators for sector-level impacts, consider what types of behaviors you anticipate other market actors will take as a result of our intervention. Also consider whether these changes are best monitored through routine observation or routine measurement. It will be important to have at least some indicators that can be routinely measured at the sectoral level – possibly limiting this to a baseline, midline and endline evaluation - while relying primarily on routine observation and readily available secondary market information like price trends for more frequent (daily, quarterly, etc) information needs.

The following excerpt from the DCED Standard for Results Measurement provides some good points to consider as you work to identify indicators of change at the sector level.

When systems around the poor change, it is not always easy to identify who has benefited and who has not. Some people may benefit directly. Others may benefit indirectly. For example:

- **Crowding in:** Other service providers start applying the practices of impacted programme 'beneficiaries,' by seeing the positive impact of programme activities on them. E.g. As a result of a programme helping specific agricultural input suppliers start up pesticide spraying services, other agricultural input suppliers start up this kind of service without input from the programme.
- **Copying:** Other entrepreneurs start applying the practices of impacted/direct programme 'beneficiaries,' by seeing the positive impact of programme activities on them. E.g. A shoe making entrepreneur sees that his neighbour has improved the quality of his shoes; he copies the quality improvements and so also gets higher prices for his shoes.
- **Sector Growth:** As a result of programme activities, the sectors in which it works, grow better and existing enterprises expand their businesses while 'new entrants' come into the market. E.g. There is an area increase in the area of cultivation for the sector in which the programme is active.
- **Backward and forward linkages:** Changes at one point of the market brought forward because of programme activities trigger changes at other points along the value chain. E.g. Because of increased maize cultivation, van pullers who transport maize benefit positively because there is a greater amount of maize to transport and hence more rides to take and thus higher pay.
- **Other indirect impact:** As a result of programme activities, other indirect impact that are brought forth in completely different sectors. E.g. Pig producers due to the increased income brought forth by a project's work, have increased purchasing power and spend significantly more on consumer durables.

Staff should therefore always be on the lookout for wider systemic change, either positive or negative. Questions about 'copying', 'crowding in' and other unintended impacts should be included in information gathering with market players.

Projects should focus on one or two key points in the results chain where wider systemic change is most likely to be significant. However, all examples of systemic change must be both measurable and attributable, and any assumptions must be clearly justified.

Source: "Measuring Achievements in Private Sector Development: Implementation guidelines. Version 1g. 5th March, 2010, ". Donor Committee for Enterprise Development, p 39.

STEP 4: REVIEW THE INDICATORS WITH KEY M&E CLIENTS

In order to validate your indicators, you will need to review them with selected M&E clients. This should include the donor, project staff, managers, and partner organizations as well as target participants. Note that your causal model may include some changes that you do not want to share too broadly, particularly those associated with promoting sector-level changes within organizations, companies or government agencies that will not be directly engaged by the project. The indicators review can take place in any number of ways, such as group meetings, email reviews and comments, etc. The main idea to keep in mind is that whatever process you use should be transparent and M&E clients' comments should be fully considered before finalizing your indicator set.

E. Case Example



SDVC Leverages Observation and Measurement to Make Decisions in Crisis

CARE's Strengthening the Dairy Value Chain (SDVC) Project was designed to double the dairy related incomes of 25,000 smallholder dairy producers in Bangladesh. The project causal model assumed that the most effective way of achieving this objective was to increase the participation of the target producers in the formal sector, which would require improved smallholder production practices, increased access to affordable artificial insemination and veterinary services, increased access to quality feed, and improved efficiency and transparency in the dairy supply chain. One-year into the project, progress was going well, and CARE had successfully created linkages between over 17,000 producers and formal sector chilling plant operators. Around this time, there was a crisis in the dairy sector in Asia due to a large volume of tainted milk in China. Global buyers stopped purchasing milk from China and other major exporters, leaving the private sector in China, India and elsewhere with a glut of milk that they wanted to offload quickly without losing too much money. Favorable trade conditions in Bangladesh enabled dairy processors across Asia to rapidly transform their milk into dry milk powder that they sold directly to major dairy processors in Dhaka for prices below what the Bangladeshi dairies would have paid to source milk domestically.

The effect of the surge of imported milk on the Bangladeshi market was that the Bangladeshi private sector stopped sourcing milk from local smallholders – essentially undermining CARE's SDVC strategy. Although SDVC did not have a system in place for routine observation, field staff were keenly aware of the project's causal model and underlying logic. As they saw declines in purchasing from the formal sector, they quickly raised this to management, which then worked closely with field staff to identify an alternative sales strategy to promote among the producers. Through a blend of staff knowledge and a rapid market assessment, CARE quickly determined the volume of milk that could be channeled deliberately by SDVC producers to informal sector buyers and how demand could be increased to ensure the local markets could absorb the glut in production. SDVC staff identified sweet shops, tea stalls, hotels and milk bars as probable outlets, estimated demand among those buyers, developed activities to increase local demand for fresh milk products (health fairs and milk campaigns in trading centers / local markets) and soon rolled out a revised strategy using observation and experience to make changes quickly.

As a result of SDVC's ability to blend routine observation with routine measurement, participating producers were able to maintain their production volumes and prices while also establishing more stable relationships with local informal and/or semi-formal buyers. Today, SDVC has done additional quantitative research on the size of the informal sector and relies on both observation and regular survey data to monitor the project's pursuit of both formal and informal sector linkages for participating producers .

F. Common Pitfalls

The following are some of the most common pitfalls teams face during the indicator selection process:

- Projects do not prioritize killer assumptions and end up collecting too many indicators.

- Projects are unwilling to make – or have not set up a clear process for making – difficult choices to weed out the ‘nice but not necessary’ indicators and end up collecting indicators without knowing exactly how they will be used or which M&E clients will want them.
- Projects do not engage their donor in a dialogue regarding expectations of the M&E system in light of M&E resource and capacity, leading to M&E system designs that cannot be delivered.
- Projects focus too heavily on output indicators resulting in a long list (at times in the dozens) of indicators that they are responsible for regularly collecting and reporting against, very few of which provide insight into what the project is accomplishing.
- Projects do not use the SMART test on the indicators they plan to track through routine measurement, leading to indicator lists that are poorly aligned with killer assumptions and/or difficult or impossible to measure reliably.
- Projects fail to develop a set of indicators that will be tracked through routine observation at the outset, leading to a lot of information being collected, very little of which can be aggregated and/or applied to inform project decision making.



Note: Don't Be Afraid to Negotiate

Many times, as project teams identify their indicators, they find contradictions between what a donor requests and what would be most beneficial for the project to measure or which approach to measurement makes the most sense for M&E clients.

All too often, teams in this situation presume they cannot change this and simply accept that they have to measure the donor's preferred indicator without a discussion. This is a mistake.

Donors will not always be flexible on this point but, provided CARE gives them an informed rationale for why we would rather not measure a particular indicator or would like to measure it in a particular way, they may be willing to compromise. Even if they cannot compromise (e.g. if they have institutional indicators that

G. Templates & Supporting Materials

1. CARE Market Engagement Indicator Information Table

Result Level	Domain (Women's Emp, Enterprise, Sector)	Key Change (Y/N)	Indicator - Measurement	Indicator - Observation	Target	Data Users (Clients)	Data Source	Collection Method / Tool	Collection Frequency	Responsible for Collection
Impact										
Lagging outcome										
Leading outcome										
Output										

Note: At this stage, you will not fill in the information in these three columns. You will do so after the next Chapters in this guide.

2. Logical Frameworks

Many donors and/or CARE Country Offices will require every project to have a logical framework. These tables have long been used to consolidate key project information in one document. Fundamentally, they pose challenges for systems-oriented projects that assume a number of non-linear relationships between interventions, outputs, and results. Nonetheless, this Annex can be used to translate the information you have gathered to this point into a logical framework.

What Is a Logical Framework?

The logical framework (or 'logframe' for short) is a table that presents the key results, indicators, targets and assumptions of a development project. The table is sometimes used to guide management decision making but, more frequently, serves as a snapshot of some of the project's key details so these can be easily communicated to donors and/or other clients. In the past, projects and donors tried to promote logframes as a tool to guide management decision making. In practice, this has proved difficult to achieve in part because logframes fail to clearly illustrate the linkages or correlations between the project's various results. So, by developing a simple snapshot of key details, the logframe often fails to capture the inherent complexity of the project's causal model.

Nonetheless, logframes remain valuable for providing this snapshot and are frequently required by donors in project proposals. Different donors may use different formats and have different expectations for logframe content. The "Logframe Rosetta Stone", included below, is outdated but provides a good illustration of the variable terms donors may use for similar concepts in their logframe templates. Before developing the logframe, M&E system designers should be sure to clarify the donor's latest requirements, format and definitions.

What information does the logframe include?

Regardless of the donor's requirements, all logframes will have two dimensions one vertical and one horizontal. The vertical dimension illustrates the links in the causal pathway between activities, outputs, outcomes and impacts. The horizontal dimension illustrates the indicators that will be used to track results at each level as well as the assumptions that must hold true if anticipated results are to be realized.

	Narrative Summary	Results	Indicators	Assumptions
Impacts				
Lagging Outcomes				
Leading Outcomes				
Outputs				
Interventions				

How do you develop your logframe?

At this stage in the M&E system design process, you have already identified all of the information you need in order to create your project logframe: you have your causal model, which outlines the causal pathways; you have identified risks and assumptions (both in the design process and now in the indicator selection process); and you have identified your key performance indicators. So, creating a logframe is simply a function of putting all of this information into one table, whichever format you require.

3. CARE Universal Indicators for Market Engagement

CARE's Universal Indicators for Market Engagement					
Domain	Indicator	Measurement Standards & Definitions	Measurement Tools to be Applied	Measurement Frequency	Must / Should
Increased Scale of Impact	1. a & 1.b. The number of poor individuals (those living below PPP \$1 / day) that are <u>directly and indirectly impacted by our value chain interventions.</u>	<ul style="list-style-type: none"> ❖ “Poor” people are defined as those living below PPP \$1/day or below the national poverty line. ❖ Impacts on ‘indirect beneficiaries’ can be either exact figures or estimates based on average household size. Any time an estimate is used instead of a representative figure, the rationale for using an estimate and the method used to generate the estimate must be clearly documented. ❖ Data on this indicator should be collected through representative samples conducted during project baseline studies and end line evaluations. ❖ Data must be disaggregated by sex, age and household type. ❖ For countries for which a PPI or USAID PAT tool exists, these tools should be applied. ❖ For countries for which a PPI or PAT does not exist, a reliable proxy must be identified and the justification for this tool's selection clearly documented in the M&E plan. 	<ul style="list-style-type: none"> ❖ For the baseline and end line evaluations CARE projects should apply – or have our evaluation partner apply simple poverty scorecards that have been developed by the Grameen Bank and/or USAID. These tools – the Progress out of Poverty Index (PPI) and the Poverty Assessment Tool (PAT) respectively should be applied whenever possible. The tools and guidance on their application can be accessed at: www.microfinance.com and www.povertytools.org. Current countries for which one or both of these simple poverty measurement tools is/are available below on pg. 50. ❖ For routine monitoring, CARE should generate estimates of the # of people directly and indirectly impacted that are likely to be below the poverty line, basing this in part on baseline data findings. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: Quarterly 	<p>Must</p> <p>Track in all market engagement projects</p>
Income poverty reduction	2.a. # of CARE IG members that have transitioned from below to above the poverty line (PPP\$1 / day or national poverty line).	<ul style="list-style-type: none"> ❖ Impact group members must be clearly defined. ❖ Calculation should be derived by comparing baseline data to end line data. ❖ Data must be disaggregated by sex, age and household status. 	<ul style="list-style-type: none"> ❖ Calculations based on baseline and end line data collected in support of indicators 1.a. and 1.b. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line 	<p>Must</p> <p>Track in all market engagement projects</p>
	2.b. # of CARE IG that are <u>projected to transition from below to above the poverty line (PPP \$1 / day or national poverty line) by project maturity.</u>	<ul style="list-style-type: none"> ❖ Project maturity is defined as the period in which all project benefits are estimated to materialize, beyond initial project timeline. ❖ Impact group members must be clearly defined. ❖ Calculation should be derived by analyzing poverty reduction data apparent from indicator 2.a. to assess 			<p>Should</p> <p>Track where feasible.</p>

		<p>whether a predictable trend emerges suggesting that full project impacts would not be felt by some IG members until beyond the date of completion of the project.</p> <ul style="list-style-type: none"> ❖ Method and assumptions used to make predictions on future impacts on poverty reduction must be fully documented and available. ❖ Data must be disaggregated by sex, age and household status. 			
	<p>3.a. Total and % <u>actual</u> increase in annual income among IG members from productive activity supported by CARE.</p>	<ul style="list-style-type: none"> ❖ Calculation should focus exclusively on income from the activities CARE supports directly. This is not a measure of household income, which is captured via indicator 1.a and 1.b. ❖ Income and cost data must be recorded on a routine basis, aligned with natural business cycles which may often mean agricultural seasons. ❖ Costs should include all capital expenditures but <u>not</u> include a proxy for hourly wages. ❖ Indicator is calculated by subtracting the total enterprise costs from total enterprise revenues on an annual basis. ❖ If proxies or estimates are used to calculate costs, the assumptions and justification for these assumptions must be fully documented and available. ❖ Data should be collected through routine measurement inline with the prevailing business or agricultural cycles as well as through the baseline and end line surveys. ❖ Data must be disaggregated by sex, age and household status. 	<ul style="list-style-type: none"> ❖ Data collection should take place through routine measurement using simple profit and loss statements. ❖ Data should be aggregated on a regular basis and reported at least annually. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: Routinely inline with prevailing business or agricultural cycles 	<p>Must</p> <p>Track in all market engagement projects</p>
	<p>3.b. Total and % <u>projected</u> increase in annual income among IG members from productive activity supported by CARE at project maturity.</p>	<ul style="list-style-type: none"> ❖ Data from indicator 3.a. should form the basis for generating projections against indicator 3.b. ❖ Method and assumptions used to make predictions on future impacts on poverty reduction must be fully documented and available. ❖ Data must be disaggregated by sex, age and household status. 	<ul style="list-style-type: none"> ❖ Data collection should take place through routine measurement using simple profit and loss statements. ❖ Data should be aggregated on a regular basis and reported at least annually. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: Routinely inline with prevailing business or agricultural 	<p>Should</p> <p>Track where feasible</p>

				cycles	
Cost-effectiveness	4.a. Ratio of total income gains from productive activity supported to total expenditures at <u>project conclusion</u>.	<ul style="list-style-type: none"> ❖ Indicator should be calculated by dividing total increase in annual income among IG members from indicator 3.a by total project expenditures over the time period in which results were achieved. ❖ Total project budget and any cross-subsidies from other CARE, partner or government programs should be considered in generating figures on expenditures. 	<ul style="list-style-type: none"> ❖ Project budget and expense report ❖ Results against Indicator 3.a. ❖ Estimations of cross-subsidies that may have contributed to project results against Indicator 3.a. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: As required by M&E system clients. . 	Must Track in all market engagement projects
	4.b. Ratio of total projected income gains from productive activity supported to total projected expenditures at <u>project maturity</u>.	<ul style="list-style-type: none"> ❖ Project maturity is defined as the period in which all project benefits are estimated to materialize, beyond initial project timeline. ❖ Indicator should be calculated by dividing total projected increase in annual income among IG members at project maturity from indicator 3.b by total project expenditures over the time period in which results were achieved. ❖ Total project budget and any cross-subsidies from other CARE, partner or government programs should be considered in generating figures on expenditures. 	<ul style="list-style-type: none"> ❖ Project budget and expense report ❖ Results against Indicator 3.b. ❖ Estimations of cross-subsidies that may have contributed to project results against Indicator 3.a. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: As required by M&E system clients. 	Should Track where feasible
Sustainability of Market Change	5. Percentage increase in value of transactions between IG members and other market actors.	<ul style="list-style-type: none"> ❖ Indicator should aggregate value of all sales or purchasing transactions between IG members and other market actors. ❖ Smallholders in groups should be calculated as individuals even in transactions are facilitated through group structures. 	❖ TBD	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: As required by M&E system clients. 	Should Track where feasible
	6. Percentage increase in VC actors reporting increased importance of other targeted VC actors to their success.	<ul style="list-style-type: none"> ❖ VC actors are those value chain actors <u>directly</u> engaged by the project including smallholders, buyers, input suppliers, etc. 	❖ TBD	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: As required by M&E system clients. 	Should Track where feasible
Women's Empowerment	7.a. & 7.b.. % men and women reporting meaningful participation of women in decision-making at	<ul style="list-style-type: none"> ❖ "Domains previously reserved for men," means an area of HH decision making that men and women both agree is typically dealt with solely by men. ❖ "Meaningful participation," means... 	<ul style="list-style-type: none"> ❖ CARE's Women's Empowerment in Agriculture framework should be consulted to guide decisions on which decision related to market engagement / productive decisions 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: 	Must Track in all market engagement

<p><i>the household level in a domain previously reserved for men</i></p>	<ul style="list-style-type: none"> ❖ Anticipated participants – IG members – must be included in the process of defining ‘domains previously reserved for men’ and ‘meaningful participation.’ ❖ Once ‘domains previously reserved for men’ and ‘meaningful participation’ are defined, the selection process and rationale for decisions made must be fully documented and available. 	<p>are typically held by men.</p> <ul style="list-style-type: none"> ❖ At least some of the tools used to track progress against this indicator by any given project should be participatory. 	<p>At least annually</p>	<p>projects</p>
<p><i>8.a. & 8.b % men and women reporting meaningful participation of women in the public sphere</i></p>	<ul style="list-style-type: none"> ❖ “Meaningful participation,” is generically defined as instances in which a woman is elected or chosen to serve as a representative of others and/or manage the activities of a group, such as a producer group or VSLA. However, men and women must be engaged in order to define what ‘meaningful participation,’ means in your context. 	<ul style="list-style-type: none"> ❖ Projects need to clearly define the types of leadership positions to be promoted that could be pursued by IG member women. ❖ At least some of the tools used to track progress against this indicator by any given project should be participatory. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: At least annually 	<p>Must</p> <p>Track in all market engagement projects</p>
<p><i>9. # of women demonstrating increased literacy in at least two of the following – market, financial, functional</i></p> <p>Indicator still under development_</p>	<ul style="list-style-type: none"> ❖ Market literacy is defined as women’s ability to identify and proactively pursue market opportunities with clear growth potential. ❖ Financial literacy is defined as women’s ability to manage savings, credit and other financial products effectively. ❖ Functional literacy is defined as women’s ability to read and complete basic math equations required to complete day-to-day tasks. 	<ul style="list-style-type: none"> ❖ Projects need to clearly define the types of literacy to be promoted and how progress will be assessed. ❖ At least some of the tools used to track progress against this indicator by any given project should be participatory. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: At least annually 	<p>Should</p> <p>Track where relevant</p>
<p><i>10. % men and women reporting ability of women to effectively control productive assets</i></p>	<p>Indicator still under development_</p>	<ul style="list-style-type: none"> ❖ Projects need to clearly define the types of assets they anticipate women gaining control over and how progress will be assessed. ❖ At least some of the tools used to track progress against this indicator by any given project should be participatory. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: At least annually 	<p>Must</p> <p>Track in all market engagement projects</p>
<p><i>11. Average number of hours per day spent on house work in relation to the duration of the working day, by sex</i></p>	<p>Indicator still under development_</p>	<ul style="list-style-type: none"> ❖ At least some of the tools used to track progress against this indicator by any given project should be participatory. 	<ul style="list-style-type: none"> ❖ Evaluation: Baseline, end line ❖ Monitoring: At least annually 	<p>Must</p> <p>Track in all market engagement projects</p>

4. Poverty Measurement Tools Available by Country

Country	PPI	PAT (USAID)
Angola		
Bangladesh	X	X+
Benin		
Bolivia	X	X
Cambodia	X	X
Cote d'Ivoire		
Ecuador	X	X+
El Salvador	X	X+
Ethiopia	X	X
Ghana	X	X+
Guatemala	X	X
Haiti	X	X
Honduras	X	
India	X	X
Kenya	X	X+
Liberia	X	X+
Malawi	X	X
Mali	X	
Mozambique		
Nepal	X	X
Nicaragua	X	
Niger		
Pakistan	X	
Peru	X	X
Rwanda	X	
Sierra Leone		
Sri Lanka	X	
Tanzania		
Uganda		X+
Vietnam	X	X

Module 5: Select Data Collection Tools

A. Objectives

The objective of this step is to define the tools you will use to collect data around the indicators you have identified. You will select tools for both indicators to be tracked through routine observation and those to be tracked through routine measurement. This information will then guide your decision making in the following module on how you will analyze and apply the data you generate.

B. Overview

Entire books have been written on data collection tools. In this module, we do not try to recreate all of this information. Instead, this module:

- Lays out a simple process for deciding the types of data collection tools that will best meet your needs;
- Shares information on some common tools used in CARE market engagement projects that can readily be adapted to meet the needs of other CARE projects;
- Refers you to other resources that index additional tools and data collection methods worth considering including.

Throughout this module, we retain one core mantra that all M&E system designers should repeat again and again during this process:

The tools we consider must be the simplest way of meeting the data needs of our priority M&E clients within our resource and capability constraints.

Having identified the indicators you want to track, this is the task to which you now must turn.



Warning! Just because you can write it down does not mean you can make it happen.

A common pitfall of M&E system designers at this stage in the process is failing to align the data collection tools with the expectations of the M&E system client as well as the capacity of the data collector to use the selected tool. For example, developing highly-complex surveys with a list of 20-30 questions to meet donor expectations and then assigning field staff to collect the data is often unrealistic but also often suggested. Plans like this may look very nice on paper, but M&E system designers need to continually assess whether they are feasible. A great way to resolve this is to ensure that the anticipated data collectors are actively engaged in this step of the process and can guide tool design and decisions around how frequently it will be applied. Another way to resolve this is to outsource formal surveys or other data collection activities to external researchers and/or consultants.

C. Materials / Resources Required

- Market Engagement Indicator Information Sheet
- Information on measurement tools and processes being applied by other CARE projects in the CO and/or partner organizations
- Information on measurement tools and processes being applied by CARE programs in the CO
- Information on any donor-required tools
- Information on secondary information sources for related indicators

D. Step-by-Step Process

STEP 1: SEPARATE YOUR ROUTINE OBSERVATION INDICATORS FROM THOSE FOR ROUTINE MEASUREMENT

To make the tool selection process simpler, teams should separate the indicators that you will track through routine observation from those you will track through routine measurement. The rationale for this is that different actors need to contribute ideas to the data collection tools you will use for each set of indicators and these tools are likely quite different.

Typically, field staff members are not well equipped to make decisions on how you will collect indicators through routine measurement. This requires knowledge of best practices in evaluation and social science research and is a task for the project M&E specialist and evaluators. By contrast, field staff members are well positioned to help you make decisions on the tools you will use to capture routine observations. And, the better you are able to align your observation tools with field staff perceptions of what is realistic, the more likely you will be able to gather quality data. Similarly, donors are usually very poorly positioned to provide input on which tools are best for capturing routine observations but may have sound ideas – or requirements – on how projects gather data for routine measurement, particularly for project evaluations and impact assessments.

You can separate the indicators, but here are two options:

1. Filter your Market Engagement Indicator Information Sheet by indicator type so that you have two versions: one version displaying only the indicators to be tracked through routine observation; and a second displaying only the indicators to be tracked through routine measurement. This will help focus the M&E clients you engage in making decision on tools.
2. Create a separate table like the one below and use it with key M&E clients to help capture decisions on which M&E tools will go into your project's "M&E toolkit." This option focuses on aligning all indicators with anticipated changes and displaying both indicator types (routine measurement and routine observation) side by side.

Expected Change	Observation		Measurement	
	Indicator	Data Collection Tool	Indicator	Data Collection Tool

**Note, not all indicators will be tracked through observation. So, you may frequently enter "NA" or "Not applicable" in the observation columns. There will be / should be many more rows filled out under the measurement columns.*

Note that neither approach to this step is inherently better than the other. The important thing to focus on is helping people to see the difference between these two types of indicators so that they can make decisions on tools for tracking them.

STEP 2: IDENTIFY TOOLS FOR THE INDICATORS YOU WILL TRACK THROUGH ROUTINE OBSERVATION

Once you have separated your indicators, you will first want to identify your routine observation tools. This process will require input from field staff, project managers, implementing partners as well as other key M&E clients that will actively use this information including, possibly, the staff from the program under which your project sits or other CARE country office and organizational initiatives. (For instance, food security initiatives might consider CARE's global food security advocacy and learning agenda to ensure lessons from those initiatives can contribute to and learn from CARE's broader agenda.)

You can gather input from these M&E clients in many ways. However, given that this approach is likely new to most staff and that you want to be sure that those responsible for capturing their observations feel the data collection tools are reasonable and useful for them, the best approach is likely to have a dedicated meeting on this during which participants will agree on criteria for the tools and help the M&E system designers to co-develop an initial set of tools. The agreed upon tools can then be refined and reviewed before finalizing them.

At a high level, this is what M&E system designers need to consider in order to complete this step:

- Research and/or identify tools or practices for routine observation that have been used in other initiatives and found to be effective. These may be formal or informal systems from which you can learn.
- Set the expectation from the outset that field staff and implementing partners will be helping to co-design the data collection tools.
- Develop a participatory approach to facilitating the tool selection and design discussions in order to build field staff and implementing partner ownership over the tools.
- Facilitate the discussions, capture the outputs and define the process for finalizing the tools – which will likely require several meetings!



Note: What's Unique about Tools for Observation?

Some unique attributes of tools that support routine observation include:

- They primarily involve monitoring unstructured or semi-structured interactions among stakeholders.
- They deemphasize quantitative measurement and focus on creating consensus around qualitative results.
- They are grounded in day-to-day experiences and emerging themes – allowing for flexibility as the project evolves.
- They involve diverse stakeholders, including impact group members in the process of periodic reflection, nurturing capacities for critical analysis, debate, and decision making.

Once you have identified your observation tools, add them to your Indicator Information Sheet.

The **Tools to Support Routine Observation and Measurement in Market Engagement Projects Table** on page 57 includes summaries of some of the tools commonly used by CARE market engagement projects to support routine observation.

STEP 3: IDENTIFY TOOLS FOR INDICATORS YOU WILL TRACK THROUGH ROUTINE MEASUREMENT

This step in your design process should feel much more familiar for M&E system designers. As with all projects, you will need to identify the tools you will use to capture data on indicators you will track via routine measurement.

Teams should refer to the following to determine which tools to apply to routine measurement exercises:

- CARE DME guidelines
- Donor standards or guidelines
- CARE Program M&E System tools

Your decision making on tools to support routine measurement should be guided by the following questions:

- Will the tool capture data with the right degree of accuracy to meet M&E client expectations?
- Who will use the tool and do they have the capacity and time to apply it effectively?
- Will the data collected with the tool complicate or simplify the analysis process?

- Does the M&E system have the resources and capabilities to use the data in meaningful ways?

The Logical Frameworks section on page 47 summarizes some of the tools commonly used by CARE market engagement projects to support routine measurement.

STEP 4: ENSURE YOUR TOOLS ALIGN WITH THE NEEDS OF PRIORITY CLIENTS AND YOUR RESOURCES AND CAPACITY

Now that you have identified tools for routine measurement and routine observation, the M&E system designers need to take a step back and ask the following questions:

1. Will the combination of tools we have identified allow us to meet the needs of the priority clients of the M&E system?
2. Based on our resources and capabilities assessment, can we apply and manage all of these tools effectively?

Since these are not simple questions it is important to engage other M&E staff as well as senior staff in the country office in this decision making process. This will allow you both to take advantage of their experience and build broader buy in within the CO for the M&E system you are designing. Even if you are confident that your tool selection will indeed meet the needs of priority clients and is within your resources and capabilities, you will still likely want to use this opportunity to expose these key decision makers to your progress and provide an opportunity for feedback. This will ensure that, down the line, they are advocates for the M&E system and can both support you and participate where and when necessary to guide project decision making.

STEP 5: FINALIZE THE MARKET ENGAGEMENT INDICATOR INFORMATION SHEET

The final task for M&E system designers is to capture the outcomes of your tool selection process in your Indicator Information Sheet. See page 62 for a blank sample of this form.

E. Common Pitfalls

- M&E system designers lose sight of the diverse needs of M&E clients leading to tools that only meet the needs of the most obvious or powerful interests – typically donors. This leads to M&E systems that prioritize precision and accuracy in all cases, even when the users of the information would prefer to focus on convenience and simplicity (i.e. project managers and field staff).



Note: Don't Waste Time and Money

Project staff and implementing partners will certainly need to collect some of the data against indicators to be tracked through routine measurement. Often, however, **secondary data sources exist on which the M&E system can draw in order to reduce staff data collection burdens, saving time for analysis.** For the 'big picture,' the Bureau of Statistics, research studies, donor and business reports, trade publications, etc. might be useful sources. At the local level, community, government and other service agency records may provide relevant planning and management information. Finally, at the enterprise level, lead firms, business cooperatives/ associations, financial institutions, and other value chain actors will often have individual and aggregate information on their transactions with impact group members—such as sales, units sold, number of customers, number and value of loans, etc. In selecting tools, be sure to consider how the project might benefit from these existing data sources to reduce the burden on staff time and resources.

Also **consider how participatory tools could help improve performance while also reducing the data collection burden.** A CARE project in the dairy sector in Bangladesh developed a "Participatory Performance Tracking Tool" to help producer groups monitor member adoption of a set of 10 key animal management practices promoted by the project. This monthly exercise increased adoption among producers who felt social pressure to apply new practices and were able to learn from one another while also reducing the CARE data collection burden. Monthly summaries were gathered from farmer group leaders instead of reaching out to every producer each month.

- A related pitfall is that projects focus disproportionately on traditional information gathering methods (periodic, formal, quantitative methods applied to large samples) and fail to utilize ad hoc, less formal, qualitative, and rapid assessment methods.
- M&E system designers focus on proving that our project caused a particular change (attribution) instead of considering whether an M&E system designed to demonstrate how we contributed to change might be more appropriate given our needs and our resources. This focus on proving causation often pushes M&E system designers – and the evaluation firms they work with – to engineer evaluations that have very limited utility for the project implementation team and/or other CARE clients. See Module 11 for guidelines on making decisions on when it is appropriate for an evaluation to focus on causation versus plausible attribution.

F. Templates and Supporting Materials

1. Tools to Support Routine Observation and Measurement in Market Engagement Projects

Tool	Application	Purpose / Description	Use Example	Costs	Benefits	Drawbacks
Checklists	Observation / Measurement	Provide staff with a simple framework to guide their observation of a particular project component.	The ADAPT Project in Zambia developed a checklist of 10 key components of agrodealer management. Each time they visited an agrodealer, the staff would review these areas and generate a score for the agrodealer.	Very low cost	Structured approach to capturing data on multiple observable characteristics	Best applied when projects have a large number of common intervention points (producer groups, agrodealers, VSLAs, etc) that can be assessed against a common set of criteria.
Weekly or monthly reflection sessions	Observation	Provides staff with a regular opportunity to reflect on the indicators for routine observation and exchange experiences.	The SDVC Project in Bangladesh held weekly field team meetings and monthly field coordinators meetings to share lessons and experiences and make operational decisions.	Very low cost	Loose structure can provide a channel for unanticipated lessons / challenges to be easily brought up.	Without adequate planning, can lead to having meetings that do not lead to action.
Staff Journals	Observation	Capture rich learning histories on wide range of observable changes.	Under the New Partners in Value Chain Development project within CARE USA, staff members were required to develop quarterly learning journals reflecting on key components of the project, expected and unexpected	Varies depending on what is expected of the journal content but, can bring high cost in terms of	Help to transfer experiential knowledge into explicit documentation, which can help meet needs of other M&E clients.	Can place high demands on staff time to generate the journals. Analyzing journal content is very difficult to do efficiently. Failing to use the data effectively can lead to reduced

			successes as well as challenges.	staff time and analysis demands		enthusiasm for the practice.
After-Action Review Meetings	Observation	To help a group of clients reflect on a recent activity and generate lessons for improvement.	Following seed fairs, the ADAPT Project in Zambia convened After Action Review Meetings with representatives from seed companies, agrodealers, lead farmers and the ministry of agriculture to reflect on: how the event went, what the successes were and what could be improved. Lessons were incorporated into planning for future events.	Very low cost	Provides an immediate channel into which multiple clients can provide input on how to improve in the future. Also helps to establish reflection and learning as a norm within the project.	Given their low cost and associated benefits, there are very few drawbacks to after action reviews. To be effective, however, these meetings need to be clearly focused and lead to concrete improvements. Otherwise, participants will lose faith in and stop participating in the process.
Staff Interviews	Observation	To help tap into staff experiences that can add value to their peers that they may not even realize is valuable information.	In support of the Market Engagement Strategy, the Economic Development Unit of CARE USA supports a series of staff interviews to share lessons on key aspects of their programming. These interviews are presented in video and written form and shared internally.	Modest cost in terms of staff time but overall very low cost	Provides a channel through which staff can share their experiences and lessons learned without significant demands on their time.	Not all learning warrants conducting and publishing (internally or externally) the outcomes of a staff interview. So, application of the tool should be limited to topics and experiences with particular relevance and/or power to enhance the performance of the project.
Stories of Change	Observation / Measurement	To capture snapshots that illustrate broader trends or changes	This adaptation of the “Most Significant Change,” methodology was applied	Moderate cost Staff time is	The method may work well when a simple format is	Without a clear focus on a set of commonly observable changes, the stories that emerge may be

		observed by staff.	by the ELMT Project in Kenya in order to provide a broad consortium with a common tool for capturing diverse observations of change promoted by the project. Findings were presented and compared during learning fairs to foster cross-consortium adoption of good practices.	the most substantial cost associated with generating and analyzing stories.	required for capturing diverse experiences. One particular benefit is that the captured stories can help meet the needs of multiple M&E clients.	difficult to compare leading to some very interesting anecdotes and /or marketing materials but little in the way of additional data on which decisions could be based.
Secondary Data Reviews	Measurement	Supports comparison between outcomes among project participants and a broader demographic. Secondary data can also provide valuable information on prevailing market prices, etc. that are key to decision making in market engagement projects.	SDVC in Bangladesh used market price data generated by the government to compare with primary data gathered from project participants as well as to monitor and prepare for changes in market conditions. Separately, secondary data on poverty levels in the project area of operations were compared to project participant poverty levels before and after implementation to help understand SDVC's contributions to poverty reduction.	Very low cost	Secondary data can provide a very low cost source of information to inform decision making and also understand and help to illustrate any contributions that the project has made to improved well being among project participants.	When trying to compare participant outcomes with a broader segment of the population, teams may be challenged because the secondary data is not disaggregated at the level required to do this. For instance, secondary data may include information on poverty status in northwest Bangladesh but not on single, female-headed households in northwest Bangladesh that have less than 0.5 ha of land. The data that is available also may not be timely.
Formal	Measurement	Gather systematic	CARE Ethiopia worked with	Moderate to	Formal surveys are	Formal surveys are often costly

Surveys	Quantitative Qualitative	evidence of project results; Satisfy more rigorous data validity requirements; Provide evidence of project impact by attributing observed results to project activities.	the Feinstein Center at Tufts University under the Productive Safety Net Program Plus Initiative to conduct a formal household survey of participants. The survey gathered data to assess the program’s ultimate impacts at project conclusion.	high cost	often a critical data source for baseline and end line studies. In addition, formal surveys can be used on sub-segments of a population during project implementation. For instance, conducting consumer or producer research to guide strategic decisions.	and require third parties to be contracted to design and implement the survey, sampling framework and analysis approach. They are best applied when you are trying to meet the information needs of M&E clients interested in rigorous, highly representative data on a particular population or group. However, given their cost and the labor required to design and conduct them, they are not often too practical for informing decision with a short timeline.
Focus Group Discussions	Measurement Qualitative	Gather qualitative information; Explore processes of change; Deepen understanding of changes found through other measurement efforts; Explore attribution.	CARE routinely uses focus group discussions to inform decision making, often with producers groups and/or other community members. In value chain programming, FGDs have the potential to serve as an increasingly important market research tool for CARE – bringing together multiple input suppliers, for instance, to help identify and generate potential solutions for persistent bottlenecks in the chain. Under the Productive Safety Nets Program Plus in Ethiopia, CARE worked with SNV to convene FGDs to validate initial value chain analyses. These FGD groups eventually were	Low to moderate	Focus group discussions are an excellent method for generating insights on or deepening our understanding of dynamics identified through other measurements or observations. FGDs can also provide a platform for clients to start to realize their own commonalities and/or differences, which can in and of itself support our change agenda.	For FGDs to be most valuable, CARE needs to be careful to ensure continuity in the questions being asked and a clear sense of what we want to learn from the FGDs and how we will analyze and share the data. Using an FGD for convenience when an alternative but potentially more costly or more complicated method, such as a formal survey, is better aligned with the interests of our anticipated clients can lead to a poor allocation of resources.

			transformed into ongoing “Multi-Client Platforms,” that facilitated dialogue across industry actors.			
Participatory Group Tracking	Measurement Quantitative	Enables group (producers, cooperatives, etc) self-monitoring of adoption of key practices promoted by the project (conservation agriculture, marketing, governance, etc.).	The SDVC project aimed to double the dairy-related incomes of 35,000 smallholder producers, creating over 800 producer groups. To support group adoption of 10 good animal management practices, CARE created a tool using pictures representing each of the practices. On a monthly basis, groups met and, among other activities, reviewed which members had adopted the practices. The results were shared with CARE field staff and aggregated to monitor group performance.	Low to moderate cost, primarily associated with field staffing levels	Increases sustainability, placing expectations for adoption on groups themselves rather than external monitors; Enables projects to readily collect data from large amounts of participants in a cost-effective manner; Enables comparisons across groups to identify high- and low-performers.	Accuracy needs to be independently verified via formal evaluation.
Ranking & Categorization	Measurement Quantitative	Enables routine, objective assessment of participant progress and review of resource allocation toward groups and/or participants needing additional support.	The ADAPT project supported a network of over 600 rural agro-dealers. Each outlet was a small shop run by a trained entrepreneur and linked to larger-scale input suppliers. To assess agro-dealer progress, CARE developed an agro-dealer performance	Very low cost	Provides an objective measure of performance that can be routinely and inexpensively applied to participants or participant groups (CARE has also used this with producer	When applied by field staff, results can vary based on individual biases. Incentives for accurate reporting are not necessarily embedded as the rankings reflect on staff performance as well as participant performance.

			<p>checklist, which was applied by staff during routine mentoring sessions. The results led to rankings of agro-dealers in categories A, B, C and D. Supporting the transition of agro-dealers from categories B, C, and D into category A became a focus for staff and guided decision on the frequency of mentoring sessions, which decreased as agro-dealers improved.</p>		<p>groups). Empowers field staff and managers to make decisions on resource allocation based on clear demonstrations of performance or lack of performance.</p>	
--	--	--	---	--	---	--

2. CARE Market Engagement Indicator Information Table

Result Level	Domain (Women's Emp, Enterprise, Sector)	Key Change (Y/N)	Indicator - Measurement	Indicator - Observation	Target	Data Users (Clients)	Data Source	Collection Method / Tool	Collection Frequency	Responsible for Collection
Impact										
Lagging outcome										
Leading outcome										
Output										

Note: At this stage, you will not fill in the information in these three columns. You will do so after the next Chapter in this guide.

3. Additional Resources with Tools for Routine Measurement and Observation

- [CARE Design, Monitoring and Evaluation Guide](#)
- [CARE International Evaluation Policy](#)
- [ODI Tools for Knowledge Management and Learning: A Guide for Development and Humanitarian Organizations](#)
- [DCED Results Measurement Standard](#)

Module 6: Developing Analysis and Feedback Loops

A. Objectives

This module considers how the data you collect will be channeled through feedback loops in order to meet the needs of your M&E clients. For many, this is one of the most exciting steps in the M&E system design process because when we start to translate data collection into improved project performance, we start to unlock the power of information!

B. Overview

Designing the path that information takes between the moment we collect it and how it arrives in the hands (or eyes or ears) of our intended M&E clients is an art in and of itself. Regardless of whether you are new to M&E system design or have been doing this for a long time, there are a few key rules that can guide you as you make your decisions to ensure your plan is as effective as possible:

Rule #1: Align feedback loops with client needs.

Designing feedback loops that take too long or are otherwise misaligned with the needs of an M&E client will only lead to frustration. A common example of this is an M&E system that requires quarterly reports from field managers, which may take two weeks to compile and then another two weeks in headquarters to be finalized before they are sent to the donor, often without a summary being sent back out to field staff. Somewhere down the line, field staff may find the final report in their inbox and notice that their district is over or under performing. By this point, precious time has been lost to make changes to improve the program. So, the feedback loop may be meeting the needs of the donor but not other key M&E clients, e.g., field staff, managers, etc.

Rule #2: Focus on efficiency. In many ways, your job as an M&E system designer is to solve a puzzle – how can you gather, process and disseminate data for all of your priority clients in formats that make sense for them at a frequency and level of accuracy that fits their needs with the fewest possible resources and the lowest possible demands on the time, particularly for data collection, of your project team? By constantly looking at how we can be efficient in our data collection and the flow of data through the M&E system, we can address this question.

Rule #3: Keep it simple, particularly at the start. There is a threat in M&E system design that we will create a system that is too complex to use and too expensive to maintain. Typically, these systems quickly become overwhelming for all involved. Particularly at the outset, be humble and cautious in your planning. Identify a few things that are top line priorities for a good number of M&E clients and figure out how to do them well. As the project moves ahead, more tools and processes can always be added.

The following sections provide a process for designing your M&E system feedback loops.



Note: What is a Feedback Loop?*

A feedback loop involves four distinct stages.

1. First comes the data. Something must be measured, captured, and stored. This is the **evidence stage**.
2. Second, the information must be relayed to a stakeholder, not in the raw-data form in which it was captured but in a context that makes it clear and intelligible. This is the **relevance stage**.
3. Even compelling information is useless, however, if we don't know what to make of it. So we need a **consequence stage**. The information must illuminate one or more paths ahead.
4. Finally, the fourth stage is the **action stage**. There must be a clear moment when the individual or project can recalibrate, make a choice, and act.

The actions driven by the feedback loop are then measured and the feedback loop can run once more, every action stimulating new behaviors that inch us closer to our goals.

* Adapted from: Thomas, Goetz. "[Feedback Loops Are Changing What People Do](http://www.wired.com/magazine/2011/06/ff_feedbackloop)". *Wired Magazine*. www.wired.com/magazine/2011/06/ff_feedbackloop. Retrieved 31 August 2011.

C. Materials / Resources Required

- Market Engagement Indicator Information Sheet
- M&E systems being applied by other CARE projects or programs
- Information on any donor-requirements on feedback loops (reporting frequency, content required, etc.)



Warning! Stay Focused on Your Clients and within the Reach of Your Capabilities and Resources

Any feedback loops you design that are out of line with your project's resources and capabilities will fail. Any feedback loops that do not meet the needs – including the timeliness, accuracy and appropriateness of the data you have collected - of the M&E system clients will fail.

D. Step-by-Step Process

STEP 1: REVIEW YOUR M&E CLIENT MAP, RESOURCES & CAPABILITIES, INDICATORS AND TOOLS

At this stage, you have identified all of the information that you need in order to decide how you will channel and apply the data you gather through the M&E system. Take a moment to review your M&E client map and the decisions you have made about indicators and tools. Also, re-review your assessment of the resources and capabilities of the project. Deciding how you will channel information through the project systems in order to meet the needs of your M&E clients depends on these issues.

STEP 2: MAP THE ANTICIPATED FLOW OF INFORMATION FROM THE POINT OF COLLECTION, THROUGH THE POINT OF ANALYSIS AND OUT TO THE M&E CLIENT OR CLIENTS

In deciding how data collected by the project will flow from point of collection through analysis and ultimately to the M&E client or clients that need it, you will likely want to consider two types of information flow: data from indicators you will track through routine measurement and data you will track through routine observation.

Developing Feedback Loops for Data Gathered through Routine Observation

Data collected through routine observation is almost always intended to serve field staff and project managers first. The rationale for collecting data through routine observation is to ensure the project is able to quickly understand, reflect and act on the direct experiences and perceptions of field staff and managers.

So, the 'paths' for this information will need to include very short feedback loops through which routine observations are regularly discussed, analyzed and applied to inform decision making. Some avenues for creating short feedback loops include:

- Weekly or monthly status meetings for staff at different levels within the team;
- The establishment of specialized task forces responsible for sharing observations, analyzing what these mean for the project and communicating this back to the team;
- Quarterly presentations and project reviews by key staff and clients;
- Weekly or routine team texts or email exchanges about particular indicators.

The findings from these data collection exercises can be quickly analyzed and channeled to key M&E clients – both senior staff and field staff – in formats tailored to their needs.

Developing Feedback Loops for Data Gathered through Routine Measurement

Although channeling data through traditional measurement methods like surveys, focus group discussions, activity monitoring and key informant interviews may seem like a simple, well established process, when we consider this for a value chain project, there is one key point that M&E system designers need to consider:

How can we make the data we gather useful for as many potential M&E clients as possible?

Frequently – though not by any means always – data that are routinely measured follow a path like the one outlined below. This process is effective in meeting donor needs and, to some degree, the needs of project managers and senior staff. However, it does little to meet the needs of field staff and/or partner organizations, project participants and local clients. As the diagram illustrates, data flows upward from participants through field staff and a series of other internal clients before reaching the donor. Feedback from the donor may or may not be strong, but is progressively diluted the farther ‘down’ the feedback loop we get.

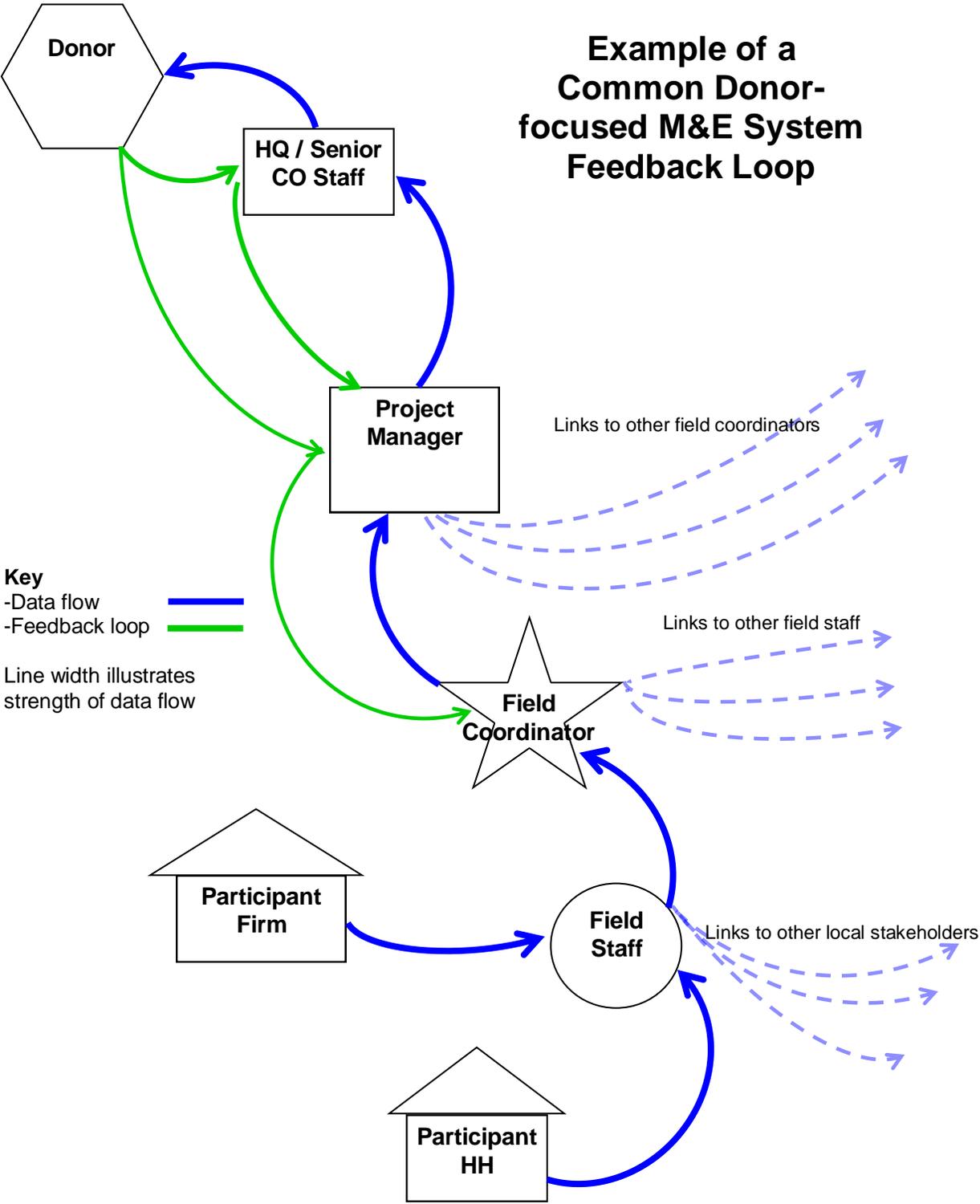


Note: Consider the Audience

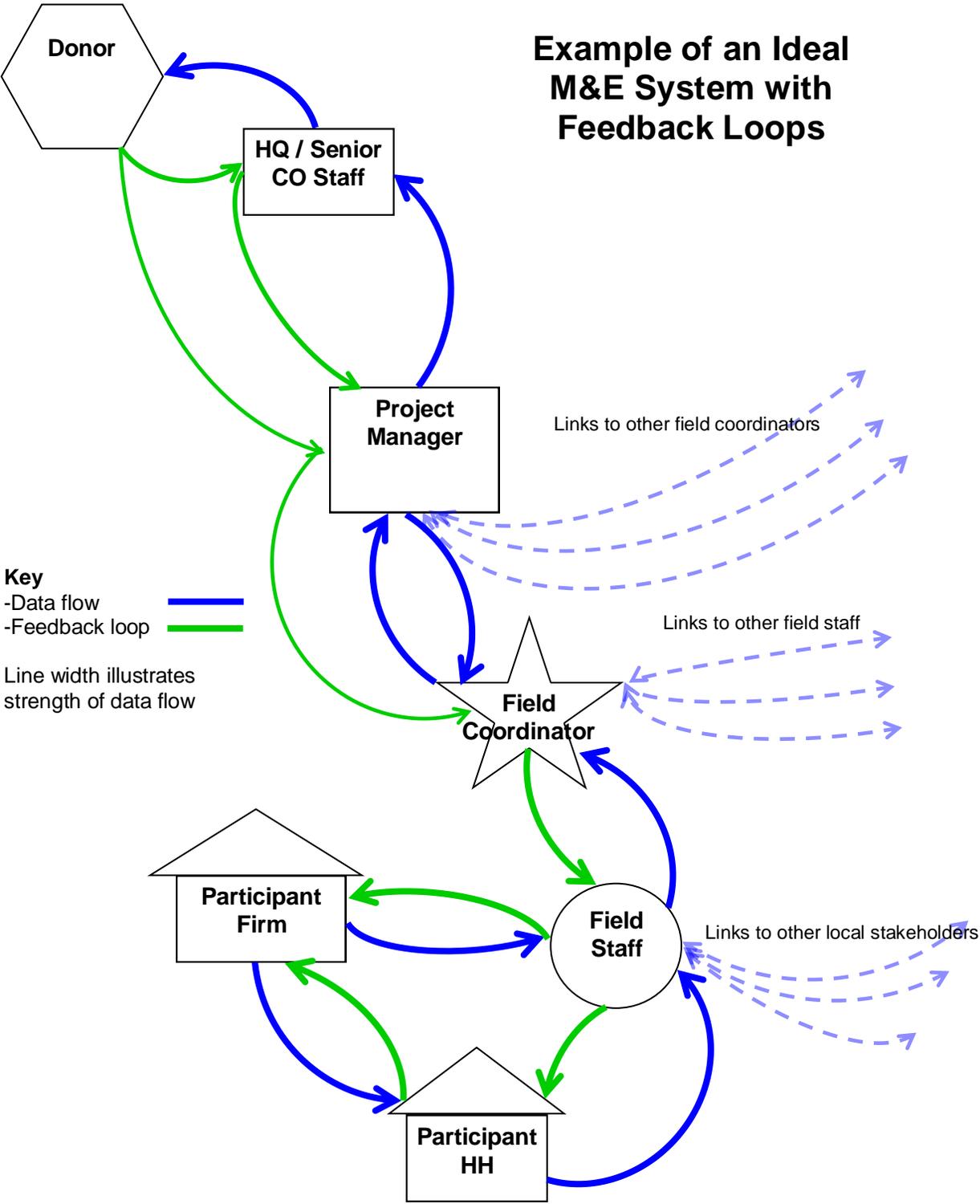
Very few M&E system clients that rely on data gathered through observation will expect or be able to read a long report on the findings. Dashboards, bullet pointed emails or simple, common templates for data presentation can help ensure the data get used.

Sadly, this structure often means many M&E clients are overlooked. By thinking carefully about our feedback loop designs, however, we can overcome this challenge.

Example of a Common Donor-focused M&E System Feedback Loop



Example of an Ideal M&E System with Feedback Loops





Tool: Map out Your Feedback Loops by Making a Diagram

One way to make it clear both internally and across the project team and the donor how your M&E system will work is to create a diagram showing where data will come from and how it will be analyzed and applied. By generating ideas in a collaborative way, M&E system designers can enhance overall buy in for the M&E system. Here is one participatory approach you could take to do this:

1. Using your M&E Indicator Information Sheet, create a set of note cards with the various information sources listed, one per note card (e.g. participant households, partner firms, community leaders, government, etc.).
2. Using your M&E Indicator Information Sheet, create a set of *different color* note cards with the data to be gathered through routine measurement (one color) and routine observation (a separate color).
3. Using the M&E Indicator Information Sheet, create a set of *different color* note cards listing the priority clients of the M&E system (one client per note card).
4. Convene a meeting with a group of project staff from CARE and our implementing partners.
5. Have participants work in small groups to review the cards you have created and agree that these cover all information sources, priority M&E system clients and data you will collect.
6. Once you have agreed on the current cards, have groups in plenary post the cards on a large wall.
 - a. M&E system clients and information sources should be positioned in a way that reflects the project's vision for how these stakeholders will relate to one another.
 - b. Data to be collected should be clustered around the information sources from which this will be gathered.
7. Once the group agrees on the organization of the information sources, data to be gathered, and priority clients, organize groups around priority clients of the M&E system. So, one group might focus on the donor, another on field staff, a third on participants, etc. Provide each group with blue and green string to represent data flow and feedback (following the example of the diagram below). Have each group discuss which data needs to reach them and what channel it will flow through.
8. Once groups have agreed on how they would like data to reach a particular client of the M&E system, have them add this to the wall.
9. Facilitate a discussion based on the 'strings' placed on the wall to answer the following questions:
 - a. Will these loops meet priority M&E system client needs?
 - b. Are they as efficient as they could be or can we make improvements?
 - c. Do we have the resources and capacity to manage all of these loops?When the answer to each of these questions is "yes," you have designed your M&E system feedback loops.
10. Take the outputs from the discussion and consolidate them in the M&E System Information spreadsheet. You will also need some narrative describing these feedback loops as part of the final M&E plan.

STEP 3: DOCUMENT YOUR DECISIONS

Once you have decided on how your data will flow through the M&E system, capture your work by:

- Filling in the final columns in the M&E Indicator Information Sheet including:
 - Data Collection Frequency
 - Data Analysis and Feedback Loop Description
 - Data Collection Responsibility
- Developing a narrative description of the data collection frequencies, alignment with priority M&E client needs, feedback loop structure and rationale and data collection responsibilities.

STEP 4: REVIEW YOUR PLAN AGAINST YOUR RESOURCES AND CAPACITY TABLE

Feedback loops can quickly become unwieldy or unrealistic if they are not aligned with the project's resources and/or capacity. Before you finalize this step, be sure to review your decisions against your resources.

E. Case Example

See page 71 for a comprehensive example from CARE's Strengthening the Dairy Value Chain project in Bangladesh. The case example includes a flow chart of a reflection cycle, a schedule for knowledge management, a graphic explaining M&E role distribution, and a data management flow chart to give you a visual of these processes.

F. Common Pitfalls

Common pitfalls in designing feedback loops include:

- **Designing a system that is unmanageable.** It is important to balance interests with resources and focus on the priority feedback loops. This is why it is important to review the resources and capacity sheet as the conclusion of this step.
- **Losing focus on the multiple clients you are trying to serve.** As many M&E systems focus largely on meeting donor expectations, it is easy to narrow down your feedback loops to focus on that particular client at the expense of all others. Be sure that the feedback loops you design will be sufficient to meet the needs of multiple M&E clients. If this seems impossible, you may need to engage the donor in additional discussions about how the M&E system will be structured.



Note: There are many ways to map your feedback loops

The exercise above is provided as one option for how a team can design M&E system feedback loops. System designers will need to consider who truly needs to be involved in this process and how to do it in a way that generates a feasible, impactful plan that teams can support. In some cases, that may be as simple as the M&E system designer and 1-2 staff sitting together to figure this out and then present it to the team. In others, it may require more discussion and collaboration across partners. In general, the more complex the project, the more energy you will need to invest in feedback loop design if your M&E system is to achieve the results you expect.

2. SDVC Case Example

SDVC REFLECTION CYCLE (REGULAR)

TASKS	FREQUENCY	OUTPUT
<p>Collecting information through:</p> <ul style="list-style-type: none"> • M&E formats • Other formats • Success case, learning & Challenges (Qualitative Information) 	<p>As per M&E & Other schedule</p>	<ul style="list-style-type: none"> • FF wise M&E report, • Learning, Success case, Challenges identified as per each FF field progress & context.
<p>Team level Documenting & Learning</p> <ul style="list-style-type: none"> • M&E Reports compilation (TPF, LPF, CPF, GPF, CPS, PPT) • Other formats (Price, Training, Etc.) 	<p>Monthly</p>	<ul style="list-style-type: none"> • Team compiled M&E report, • FF's progress sharing on qualitative aspect • Learning, Success case, Challenges verification and confirmed at team level.
<p>Regional mgt. team documentation & Learning</p> <ul style="list-style-type: none"> • M&E Reports compilation (TPF, LPF, CPF, GPF, CPS, PPT) • Other formats (Price, Training, Etc.) 	<p>Bi-monthly</p>	<ul style="list-style-type: none"> • M&E Findings sharing • Team will share key qualitative findings, progress, success cases & Learning. • Validate the achievement and document for further sharing
<p>Regional all staff level documentation & Learning</p> <ul style="list-style-type: none"> • M&E Reports compilation (TPF, LPF, CPF, GPF, CPS, PPT) • Other formats (Price, Training, Etc.) 	<p>Quarterly</p>	<ul style="list-style-type: none"> • M&E Findings sharing • Team will share key qualitative findings, progress, success cases & Learning. • Validate the achievement and document for further sharing.
<p>SDVC Key Mgt. level documentation & Learning</p> <ul style="list-style-type: none"> • M&E Reports compilation (TPF, LPF, CPF, GPF, CPS, PPT) • Other formats (Price, Training, Etc.) 	<p>Bi-annually</p>	<ul style="list-style-type: none"> • M&E Findings sharing • Region mgt. will share key regional qualitative findings, progress, success cases & Learning. • Validate the achievement and document for further sharing.

SCHEDULE OF KNOWLEDGE MANAGEMENT (REGULAR)

FORUM KEY WORDS

- TSM = Team Staff D&L Meeting (1-Day) = (PO , FFs, FF-V) of Respective team =6/7
- RMM = Regional Management D&L meeting (1-Day) = (Region/Field office based staffs & regional POs) =10-11
- RSM = Regional Staff D&L Meeting (2-Day) = (Respective region's all SDVC staff)=40
- SMM = SDVC Key Management D&L Meeting (1-Day) = (PC, PMMC, both Rangpur & Bogra office based staffs) =14

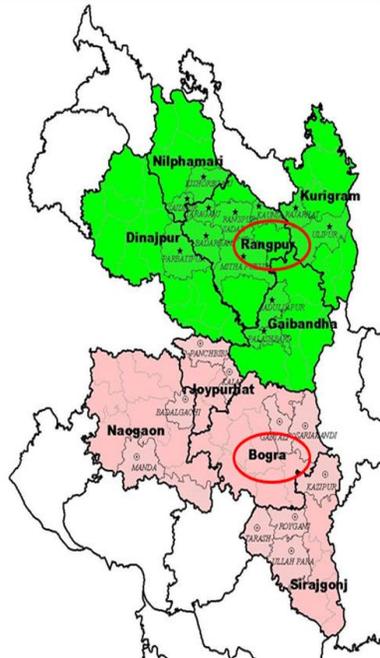
Activity/ Month	Nov'2010	Dec'2010	Jan'2011	Feb'2011	Mar'2011	Apr'2011	May'2011	Jun'2011	Jul'2011	Aug'2011	Sep'2011
Team Staff DL Mtg. (TSM)	W1										
Regional Mgt DL Mtg. (RMM)		W2		W3		W3		W3		W3	
Regional All Staff DL Mtg. (RSM)	W3			W3			W3			W3	
SDVC Key Mgt. DL Mtg. (SMM)					W1						W1

When RMM and RSM overlaps in a month, then RMM should be organized first.

'W' means week number of those months.

- TPF= Team progress format,
- LPF=LHW progress format,
- CPF=Collectors Progress format,
- CPS=Cow-possessing-sales format,
- GPF= Group members' progress format,
- PPT=Participatory Performance Tracking.

SDVC M&E STAFF'S ROLE DISTRIBUTION



• TC-M&E at Rangpur

• TO-M&E at Bogra

• M&E Support Officer at Bogra

**Technical
Coordinator-M&E**



Posted at Rangpur

- Lead in Design
- Implement M&E tasks at Rangpur
- Reporting and Information sharing
- Directly Supervise TO-M&E and Indirectly M&ESO
- Represent M&E Unit internally and externally.

Technical Officer-M&E

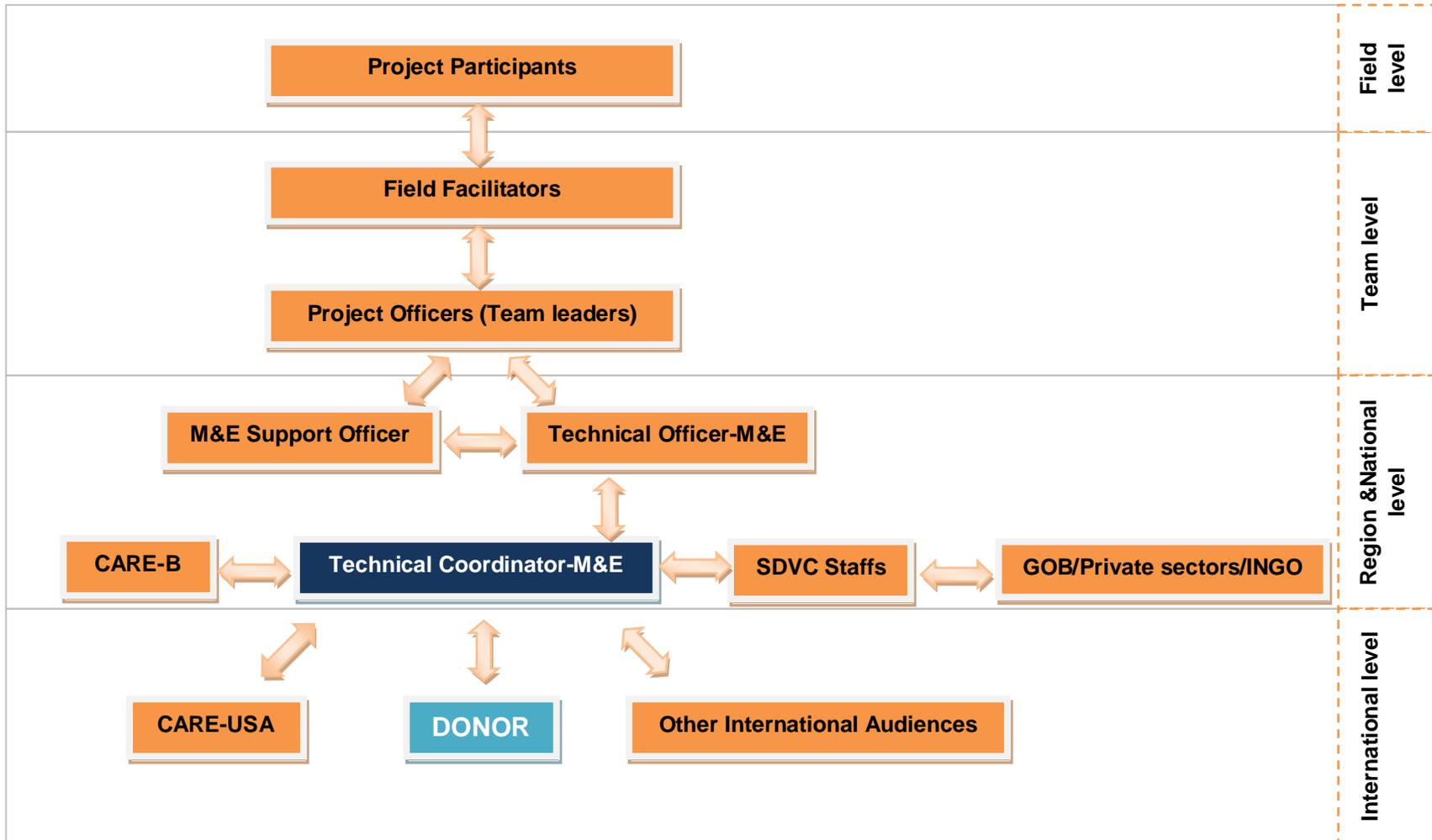


M&E Support Officer

Posted at Bogra

- Assist TC-M&E in design
- Ensure Data entry & data management
- Implement M&E tasks at Bogra
- Assist TC-M&E in reporting
- Data backup and filing

SCHEMATIC DIAGRAM OF SDVC DATA FLOW MANAGEMENT



Module 7: Conducting a Reality Check

A. Objective

Having identified most aspects of your M&E system, this step is designed to help the design team to quickly review the realism of the plan and make adjustments if/where necessary before moving ahead.

B. Overview

As we have noted throughout this guide, one of the most persistent downfalls of M&E systems is that they are unrealistic. The most common downfalls of otherwise well-intentioned M&E plans are:

- Plans are unrealistic in light of the resources available or that could be made available.
- Plans are unrealistic in light of the capacity (both skills and time) of staff to effectively collect, analyze and use the data suggested.
- Plans fail to ensure that anticipated contributors and users of the system have the incentive to participate as envisioned.

In this step, we will use a simple tool that enables the design team to consider the realism of the M&E plan and make adjustments as necessary to ensure your plan is feasible and will deliver maximum value for as many M&E clients as possible.

C. Materials / Inputs Recommended

- M&E Client Information Needs Worksheet (from Step 1, pg. 14)
- M&E System Resources and Capacity Assessment Sheets (from Step 3, pg. 34-35)
- M&E System Indicator Information Sheet (from Step 6, pg. 63)
- Reality Check-box Tool (this step)

D. Step-by-Step Process

To complete Step 7: Conducting a Reality Check, follow these steps:

STEP 1: ORGANIZE YOUR INFORMATION AND SEED THE REALITY CHECK-BOX TOOL

The Reality Check-box Tool is designed to provide a quick snapshot of the M&E system's feasibility. It is based on decisions you have already made and tools you have already developed. So, your first step is to bring together and organize the key pieces of information you need and transfer them to the Reality Check-Box Tool.

Using the Reality Check-box Tool in Section G below, list the priority M&E clients you identified in Step 1. Each client that received a ranking of "High relevance, High power," should be included in the column at the left.

Next, review your M&E System Indicator Information Sheet. Using the information in your "Responsible for Data Collection" column, generate a list of each actor or individual you have listed in this column. Add these responsible parties to the Reality Check-box Tool in the noted section.

STEP 2: FILL OUT THE M&E REALITY CHECK-BOX TOOL

This step likely requires the participation of the project manager and some key staff. The completed tool will help the team to decide whether the planned M&E system will truly meet the needs of the M&E clients



Note: Seeding the Reality Check-box Tool

By transferring the content from your M&E System Client Needs Worksheet and the M&E Indicator Information Sheet, you should end up with a list in the Reality Check-box Tool of all actors that will either be expected to provide data to the M&E system or apply the information generated by the system.

and is feasible given the project's resources and capacity. The tool is completed by using all available information to discuss and respond with a "Yes" or "No" answer to the following questions:

For Clients of the M&E System:

- Is data plan aligned with client priorities (impact, outcome, etc.)?
- Is the data plan aligned with client expectations for accuracy and frequency?
- Is the format aligned with client expectations and preferences?

For contributors to the M&E System:

- Will the contributor have enough time to gather the expected data at the frequency and degree of accuracy required?
- Are the tools and processes aligned with contributor resources and capacity?
- Are there incentives in place to ensure that contributors will adequately prioritize this aspect of their job?

If the team agrees that the response to any of the above questions is "No," options should be discussed for how this will be overcome and/or what modifications need to be made to the M&E system.

STEP 3: FINALIZE THE REALITY CHECK-BOX TOOL AND REVISE M&E SYSTEM AS APPROPRIATE

The team should continue to revise and update the system until you are confident that the design is aligned with the resources, capacity, incentives and interest of all M&E clients and contributors. Once agreement has been reached, update your Indicator Information Sheet as appropriate to reflect how the M&E system will function.

E. Templates & Supporting Materials



Reality Check-Box Tool Worksheet

To complete the Reality Check-Box:

1. Fill in the list of priority M&E system clients identified in Step 1 of the guide. (We have pre-filled some “usual suspects” here to get you started.)
2. Fill in the list of data sources / contributors from the M&E Indicators Information Sheet completed in Step 6 of the guide.
3. Discuss the questions with team members and answer “Yes” or “No” for each of the questions listed for each client and contributor.
4. Review any “No” responses and modify the M&E plan accordingly.

Reality Check-Box – Clients

Clients	Is data plan aligned with client priorities (impact, outcome, etc.)?	Is the data plan aligned with client expectations for accuracy and frequency?	Are the formats we will use aligned with client expectations and preferences?	If “No” for any question, what are the implications for M&E System?
Donor				
Field staff				
Project Manager				
Minister of Agriculture				

Reality Check-Box – Contributors

Contributors	Will the contributor have enough time to gather the expected data at the frequency and degree of accuracy required?	Are the tools and processes aligned with contributor resources and capacity?	Are there incentives in place to ensure that the contributors will adequately prioritize this aspect of their job?	If “No” for any question, what are the implications for M&E System?
Field staff				
M&E coordinator				
Field coordinator				
Participants				
Lead firm partners				
Evaluation partner				

Module 8: Integrate Other Design Features into the M&E System

A. Objective

With the M&E system designed, this step focuses on developing select support functions for the system including putting in place data management plans and checks to ensure data quality.

B. Overview

M&E involves a lot more than information gathering. A good M&E system includes a number of design features that ensure the smooth functioning of the system and the validity of M&E information. The following ten steps are important in meeting these expectations:

1. Develop information (data) collection instruments.
2. Pilot test information (data) collection instruments.
3. Arrange information (data) collection logistics.
4. Establish data quality oversight procedures.
5. Develop electronic database.
6. Establish data management procedures.
7. Establish data analysis procedures.
8. Establish reporting procedures.
9. Assign clearly defined roles to everyone involved.

C. Materials / Inputs Recommended

- All M&E system design pieces developed to this point.
- Senior M&E staff and/or country program M&E staff working on related initiatives should be engaged in this process to ensure the project's M&E system integrates with other standards within the country office.



Note: Pilot Testing Your Tools

All M&E tools should be pilot tested and revised based on results. To pilot test an M&E tool, staff should administer the instrument to a relative handful of targeted respondents (e.g., 5-20). The goal of the pilot is to see if the tool is clear for respondents and data collectors, the responses provide the information that was expected, the time to administer the tools is appropriate, etc. Following the pilot, staff should reflect on performance and improve the tool based on the test before finalizing it. Sometimes a second pilot is necessary.

D. Step By-Step Guide

STEP 1: DEVELOP DATA COLLECTION INSTRUMENTS

Before projects can gather any performance data they first need to develop their data collection tools. Tools need to be developed for every level of the M&E system – monitoring through routine observation and routine measurement as well as evaluation tools. It is important that these tools be developed in a participatory way – particularly, they should be developed in collaboration with their intended users. So, front-line staff members need to be actively engaged in designing tools they will use on a routine basis and the project's evaluators as well as the project managers need to be involved in developing tools for the baseline, midline and endline evaluations.

It is important that tools are developed in local languages and tested to ensure they are accurate and accessible both to project participants and the staff or partners that will be using them.

STEP 2: PILOT TEST DATA COLLECTION INSTRUMENTS

As a general rule, data collection instruments should be pilot tested and revised where necessary prior to full rollout. Pilot testing is necessary to identify inappropriate, poorly worded, or mistranslated questions; validate the existing coding scheme; identify omitted questions; and train field researchers in tool implementation.

Pilot testing is particularly important for instruments that are to be rolled-out widely across the project's operating units, clients, or other value chain actors. Pilot testing is less important (and in some cases may not be cost effective) for ad hoc information gathering activities designed to be done quickly with a convenience or targeted sample of clients or other value chain actors. Wherever feasible and cost-effective, however, information gathering instruments should be pilot tested prior to full rollout.

STEP 3: ARRANGE DATA COLLECTION LOGISTICS

Projects need to make sure that all necessary logistical arrangements are made prior to rolling-out the data collection instrument. Depending on the scope of the activity, logistics may include:

- Selecting research team members,
- Transportation to and from the research site,
- Meals and lodging,
- Security arrangements,
- Communication with respondents or potential respondents,
- Means of communication between research teams and with the head office,
- Protocols for addressing problems or questions as they arise,
- Safeguarding of blank and completed information gathering instruments, and
- Storage and transfer of research findings.

STEP 4: ESTABLISH DATA QUALITY PROCEDURES

To ensure the consistency and quality of data collection, projects must establish data quality procedures. This is done to avoid several threats to the quality of information gathered through M&E activities, including:

- **Data tampering:** This occurs when data collectors intentionally falsify data or otherwise violate data collection protocols.
- **Data collection errors.** This is when data collectors unintentionally violate research procedures. Common examples occur when researchers miscode responses, influence responses by using leading questions or offering inappropriate (valued) comments when respondents answer a question, fail to follow survey instructions, misinterpret survey questions, ask leading questions, interject their own opinions, and so forth.
- **Security lapses:** This is when the failure to implement security procedures results in the theft, loss, or damage of research data. Common examples include the failure to lock vehicle doors leading to the theft of completed paper copies or computers, the failure to protect paper copies or computers from the elements, or leaving paper copies or computers on busses or taxis.

These represent just a few of the potential circumstances that can lead to inaccurate or incomplete project data, undermining the accuracy of the entire M&E system. M&E system designers need to consider such contingencies and develop simple, easily followed quality control procedures to ensure the potential threats to data quality are minimized. Examples of quality control procedures include:

- Quality M&E system training, routine refreshers and collaboration with data collectors to troubleshoot data quality threats as they emerge. The best way to avoid threats to data quality is

to ensure that everyone involved in the M&E process fully understands their role and responsibilities and appreciates the importance of ensuring data quality. As outlined in the following chapter, this begins with effective training that is then followed up by ongoing support and collaboration between the M&E core team and data collectors to continually improve the system.

- **In-Field Supervision:** When conducting a formal study, such as a baseline evaluation, field research teams should include at least one field supervisor who is responsible for ensuring that the research quality procedures are rigorously followed. For large-scale survey and qualitative research done by external researchers, it is strongly recommended that the project assign a staff member or a paid project representative to accompany and monitor the external research firm during all phases of the field research. When applying routine monitoring tools, M&E core team staff should regularly shadow staff to monitor progress and tool application as well as troubleshoot any trouble the staff are having in applying the tools. Building a collaborative, trusting relationship between data collectors and M&E core team staff can greatly reduce threats to data quality.
- **Random Quality Checks:** M&E core team staff should conduct random quality checks on incoming data. By looking for outliers or anomalies in data submitted from the field, M&E teams can identify and correct data submissions that otherwise would be inaccurate.
- **Reviews of Data Collection Forms:** M&E core team members review each completed research form each day to ensure that the forms are completed with the information filled in correctly. Incomplete forms or incorrect information trigger review and follow-up.

The goal of the M&E system designers should be to consider the greatest threats to data quality and develop simple, clear procedures or rules that will enable the team to mitigate these risks – paying attention though to the balance between ensuring data quality and over-burdening front line staff or data collectors with unrealistic procedures that detract from project implementation quality.

STEP 5: DEVELOP PROJECT DATABASE AND DATA ENTRY PROCEDURES

Projects need a place to store quantitative information from surveys/questionnaires. An integral part of developing quantitative information gathering tools is developing the electronic database in which the survey/questionnaire results are inputted. The common format for data shells is to list questions across the columns and list the respondents down the rows. Electronic data shells may use any number of data management or statistical programs, including most commonly Excel, SPSS, or Access.

The data shells should capture information on each question in the same order as it was asked. Where possible, the data shell should build in data controls to flag inappropriate responses (e.g. responses outside the permissible range). Embedded within the data shell, or included in a companion document, should be a 'codebook' specifying the indicator name and definition along with corresponding labels and coding scheme.

Qualitative data also needs to be compiled and managed in a central space. M&E system designers should carefully consider data collection tools to ensure that the qualitative information can readily be consolidated in useful formats. This might include, for instance, consolidating monthly staff reports into one master report where all qualitative fields (challenges, lessons learned, success stories, anecdotes) are compiled so the reader can easily look for trends across implementation teams.

STEP 6: ESTABLISH DATA MANAGEMENT PROCEDURES

To ensure the safety, consistency, and quality of data after it has been collected, projects need to establish data management procedures. The following are critical components of data management.

- **Data Storage:** This includes electronic storage of survey/questionnaire data sets, electronic storage of qualitative studies and M&E reports, and physical storage of paper copies.
- **Data Backup:** Electronic data needs to be backed up periodically to ensure that it is not lost in the event of hardware failures, other hardware damage, software crashes or viruses, theft, and so forth. Where possible, the project might consider the possibility of on-line backup.
- **Date Entry:** Protocols are needed to guide data entry, including persons responsible for data entry, data entry procedures, resolving errors or ambiguities in paper copies, addressing data entry mistakes, and cleaning completed data sets.
- **Data Access:** Access to data, both electronic and paper, needs to be restricted to authorized personnel. This helps prevent violations of respondent anonymity, theft or loss of data, and inadvertent or intentional alteration of data. It also creates a clear chain of responsibility in case any of the aforementioned events occur.
- **Data Revision:** Revisions to data need to follow strict protocols that include records of each revision made, the person making the revision, and the date of the revision. Revisions include not only changes to the data itself but also things such as the merging or segmentation of data sets or the creation of new variables within the data set. Unauthorized and undocumented changes to the data set are sure to create confusion among the data users, particularly if those making the changes to the data leave the project.



Note: Opening Up Access to the Data

Although it is important to ensure the project has a secure, clean dataset on which to conduct analyses and that respondent privacy is ensured, M&E system designers also need to figure out how to best share data with multiple users. Many M&E systems limit access to project data to a few (often just one) team member who is then responsible for all data analysis. This approach creates bottlenecks and disempowers team members. The result is often that the M&E system fails to meet the needs of front line staff, making them less interested in M&E and less committed to ensuring quality data. M&E system designers need to consider how data can be managed in a way that allows multiple staff to access, manipulate, analyze and learn from the data.

M&E system designers should develop clearly articulated protocols for each of these areas – these do not need to be long documents and, in fact, should be brief, very clear and accessible so that any M&E system user that needs to can easily understand them.

STEP 7: ESTABLISH DATA ANALYSIS PROCEDURES

Raw data is of limited use. To be useful as a management tool or to fulfill external accountability requirements, data must be transformed into useful information. Data analysis is the process by which data is transformed into useful information. Projects need to determine the types of data analysis it wants to conduct for each of the key performance indicators and ensure that it has the resources and capacity to carry out the analysis. For analysis of large, complex data sets, the project may want to consider outsourcing data analysis. Few value chain projects will have the capacity to do the type of sophisticated data analysis necessary to establish formal attribution.

STEP 8: ESTABLISH INFORMATION DISSEMINATION PROCEDURES

To fulfill its usefulness as a management tool and as a means of external accountability, performance data must be disseminated to internal and external users. The design of the “Data Flow” system illustrates what information needs to reach various M&E system clients, the frequency at which they need it. At this stage, M&E system designers need to outline the procedures that will ensure those expectations are met. Dissemination procedures include, but are not necessarily limited to, the timing, content, and format of information. The timing, content, and format of information for external reporting purposes will be determined in part by the reporting requirements established by donors. For internal audiences, the format in particular should be co-developed with the staff that will use the information.

STEP 9: ASSIGN CLEARLY DEFINED ROLES AND RESPONSIBILITIES FOR ALL INDIVIDUALS INVOLVED IN M&E IMPLEMENTATION

The effective operation of the M&E system requires that the roles and responsibilities for all individuals involved in M&E are clearly defined and agreed upon. Achieving clarity on roles and responsibilities requires further that they be written down and incorporated into management and staff job descriptions, MOUs with implementing partners, and contracts with external researchers.

E. Common Pitfalls

As you complete this phase of M&E system design, be sure to avoid these common pitfalls:

- Projects fail to consider adequately all the features necessary to create a functioning and effective M&E system.
- Projects do not pilot test data collection tools and instruments before rolling them out.
- Projects do not establish data quality procedures or conduct periodic assessments of data gathering activities and data quality.
- Projects do not establish data management procedures or plan for staff turnover in M&E.
- Projects do not plan to and/or invest in conducting sufficient staff training and follow up mentoring to ensure the M&E system produces high-quality, reliable and accurate data.
- Projects focus narrowly on designing protocols that meet the needs and expectations of the donor but neglect other M&E system clients.

Module 9: Training and Capacity Building for All Personnel Responsible for M&E Activities

A. Objective

This module aims to give M&E system designers some basic tools for developing and conducting training on the M&E system.

B. Overview

Everybody involved in the implementation of the M&E system, including partners, should receive training on the system. CARE's approach to M&E system design for value chain projects is deliberately participatory in part to ensure that those responsible for implementing and using the system are familiar with its design, intent and focus. This should reduce some of the pressures on the training team but will not eliminate the need to provide training and ongoing capacity building on the system.

M&E training involves the following six steps:

1. Reassess training needs
2. Create a training and capacity building plan
3. Develop training content
4. Provide training
5. Monitor training effectiveness
6. Provide additional training and support as appropriate.



Warning!

Training in M&E is critical. Sending untrained staff to gather information on outcomes and impacts can result in serious compromises to the validity of information – resulting in complete invalidation in some cases. It is typically best to start with trainings on the monitoring components of the system and build to evaluation pieces.

C. Materials / Inputs Recommended

- All M&E system components developed to this point
- Staff with experience conducting trainings on M&E
- Staff with experience designing trainings using adult learning methodologies

D. Step-By-Step Guide

STEP 1: REASSESS TRAINING NEEDS

The M&E resource and capacity assessment carried out earlier will have identified the initial capacity gaps in M&E as well as the resources available to conduct M&E training. You will want to re-review those training needs and capacity gaps based on the final M&E plan design.

Training needs assessments can be informal based on your knowledge of staff experiences and performance or can be a more formalized process. Which route you choose will likely depend on the size and complexity of the project you are implementing. On larger projects with more staff, it is important to be sure your training plan is very well tailored to staff capacity gaps as there will be a limited number of opportunities to engage with individual staff members. On smaller projects you should still carefully target the plan, but since you will likely have more opportunities to engage with those staff members, you may not need to cover as much content in your initial trainings.

In either case, capacities that have been prioritized by the M&E system design team should be assessed. This assessment should find which capacities the team already has, those that need to be bought in, and

the capacities that need to be built within the team. Based on your findings, turn to Step 2 and start building the training plan.

STEP 2: CREATE A TRAINING AND CAPACITY BUILDING PLAN

With your training needs identified you will need to develop an M&E training and capacity building plan. Items in the M&E training plan include the following:

- Topics;
- Persons to be trained;
- Persons to deliver training;
- Dates;
- Locations;
- Budget;
- Training resources that are currently available (web links, documents, manuals, discussion guides, power point presentations, etc.);
- Training resources that need to be acquired or developed.

It is important to note that not all management and staff members need training in all the topics or at the same level of detail. Similarly, some training will occur periodically and will include initial training for management and staff at M&E system inception and in-service training over the life of the project to continually improve practice.

STEP 3: DEVELOP TRAINING CONTENT

Once you have developed your training plan, you will need to develop your actual training content. Topics to be covered should include the following at a minimum:

1. M&E System Clients
2. Causal model
3. Key performance indicators
4. Information gathering methods and tools
5. Practical experience in quantitative and qualitative information gathering
6. Data analysis
7. Other M&E design features
8. Role and responsibilities

Projects may cover the above eight topics, in addition to other training topics, in the order and with the specific content as they deem appropriate.

Topic 1-M&E System Clients: The training should start with an overview of who this is all for – who are we gathering information for, how do we expect they will use this information and why have we decided to gather the information in the ways that we have. It is important, particularly for those responsible for collecting and sharing information for the M&E system that they understand the rationale behind the system and their role in it. It is also important to illustrate that one function of the system is to meet their information needs.

Topic 2-Causal Model: The training should include a review of the project causal model. The causal model constitutes the basic foundation for the M&E system design and the project itself. So, it is important the management and staff understand not the causal model and its implications for the M&E system.

Topic 3-Key Performance Indicators: The training should include a review of each key performance indicator to be collected. Issues covered in the review include the definition of each indicator, how the indicator is measured, how data on the indicator will be collected, the timeline for collecting and reporting the indicator, and how the indicator satisfies client needs.

Topic 4-Data Collection Methods and Tools: The training should include a review of all data collection methods and tools in the M&E toolbox. Issues covered in the review include the purpose for each method

and tool, the rationale for including the method or tool in the M&E system, how the method or tool satisfies stakeholder information needs, the method or tool's implications for data validity, and issues related to method or tool implementation.

Topic 5-Practical Experience in Quantitative and Qualitative Information Gathering: If at all possible, the training should include practical experience in quantitative and qualitative information gathering in which the trainees go into the field to practice implementing selected tools from the M&E toolbox. Depending on time and resources, this might take place across half a day to two days.

Topic 6-Data Analysis: The training should include a review of data analysis procedures. Issues covered in the review include familiarization with and (if necessary) training in database management and data analysis software and common data analysis methods.

Data analysis training should focus on a limited number of relatively simple data analysis procedures that the project will use to make sense of the data and prepare it so that it can be interpreted and used by M&E clients. In terms of quantitative data analysis, the project will require methods capable of, at a minimum, summarizing frequencies (numbers and percentages) and central tendencies (mean, median, and mode).



Note: Data Analysis

Many value chain projects will not perform data analysis more sophisticated than frequencies, central tendencies, and cross-tabulations, either because they do not perceive a need to do more sophisticated analysis, or they do not have the capacity.

For projects with a large amount of data, particularly quantitative data, however it can be quite useful to have someone supporting the project by doing statistical analysis on key questions. This is typically easily arranged by connecting with a consultant or students and professors in local universities. So, likely would not be covered in M&E training.

At a higher level of analysis, projects may also want to determine whether observed differences between groups are statistically significant. This analysis should be undertaken by the M&E specialists working with the project though.

Topic 7-Other M&E Design Features: The training should include a review of all other M&E design features. Issues covered in the review include:

- The distinction and overlap between data to be collected through routine observation and routine measurement and the practical implications for information gathering and other M&E activities;
- Systems for capturing and dissemination of explicit and tacit information;
- Reporting procedures;
- The design and function of feedback loops.

Topic 8-Roles and Responsibilities: The training should include a review of the roles and responsibilities of everyone involved in the implementation of the M&E system. At the conclusion of the training, management and staff should have a clear understanding of: (1) their individual role and responsibilities in ensuring the effective operation of the M&E system; and (2) where their role fits in relation to the roles of other managers and staff members.

STEP 5: MONITOR TRAINING EFFECTIVENESS

The provision of training does not guarantee that trainees will have acquired and assimilated all the information and skills they need, or that they apply the information and skills in the appropriate way. So, it is necessary that M&E staff monitor the effectiveness of the training via both informal and formal means. Informal monitoring will occur during their routine interactions with project management and staff, implementing partners, and other people responsible for implementing the M&E system. Formal monitoring consists of planned and periodic methods for observing the implementation of the M&E system, discussion of implementation issues with those responsible for implementing the system, review and analysis of M&E information, etc. Although all or most M&E staff are expected to participate in effectiveness monitoring, the best option is to assign a single M&E staffer with overall responsibility for training effectiveness monitoring.

STEP 6: PROVIDE ADDITIONAL TRAINING AS APPROPRIATE

Depending on the results of the training effectiveness monitoring, the project may need to provide additional in-service training to project and implementing partner staff responsible for M&E implementation. The project will need a supplementary training plan to guide the design and delivery of any in-service M&E training.

E. Common Pitfalls

- Projects do not provide adequate training, or any training, to persons responsible for M&E.
- Projects limit M&E training to the M&E staff and do not include other management or staff members, although they may also play a role in M&E implementation.
- Projects limit M&E training to its internal management and staff and do not include implementing partners, although they may also play a role in M&E implementation.
- Projects focus on technical skills training and ignore important human skills.
- Projects focus narrowly on information gathering and ignore other M&E features and processes, such as data management and analysis.
- Projects offer a single training at the launch of the M&E system and do not provide in-service training or training to new hires.
- Projects do not monitor the implementation of the M&E system and/or make adjustments in light of observed shortcomings.

Module 10: Reviewing and Revising your M&E System

A. Overview

This module presents basic information on planning for and conducting routine reviews of the M&E system.

B. Objective

The value chain project is finally ready to implement the M&E system. Implementation of the M&E system involves the following four steps:

1. Implement the M&E system
2. Monitor system implementation
3. Conduct formal review workshops
4. Adjust the M&E system

C. Materials / Inputs Recommended

- Causal model
- Data gathered through the M&E system in multiple formats for multiple clients
- All analysis conducted on the project data at the time of review
- As many staff as possible that are engaged in implementing or using the M&E system

D. Step By-Step Guide

STEP 1: IMPLEMENT THE M&E SYSTEM

With the system now designed and staff trained, the focus shifts to implementing the system. At last all the planning and preparation leading up to this point comes to fruition!

STEP 2: MONITOR SYSTEM IMPLEMENTATION

As with any other management system, the actual implementation of the M&E system is likely to uncover some gaps or other weaknesses not anticipated in the original system design. Teams need to monitor the implementation of the system and make note of its weaknesses, as well as identify strengths on which the system can build. All components of the M&E system, including the key performance indicators, data collection methodologies and tools, tacit information gathering, feedback loops, etc., are subject to review and revision as a result of implementation experience.

M&E system monitoring takes one of three forms. The first form is the ongoing formal monitoring of M&E implementation again carried out by the M&E staff. This consists of planned meetings, formal feedback mechanisms, field visits, spot checks, data consistency and quality reviews, and so forth. The second form is the ongoing informal monitoring of M&E implementation carried out by M&E staff, field staff, implementing partners, etc. This consists of informal observations, conversations, feedback, etc.

Both formal and informal monitoring of the M&E system can lead to refinements. Particularly at the outset of applying the M&E system, teams should expect to make changes and/or conduct reviews of the system frequently in order to respond to emerging issues as they arise (i.e. do not wait until the 6-month review to change things if it is clear after 2 weeks that something is not working).

The third form is external assessment carried out by independent evaluators. A common form of external assessment is the Data Quality Assessment (DQA). Projects should plan on carrying out at least one external assessment during the life of the project, ideally within the first 12-18 months of system operations. This exercise will help the team to validate any concerns about the M&E system and plan to make formal adjustments.

STEP 3: CONDUCT FORMAL REVIEW WORKSHOPS

Projects should schedule periodic, formal reviews of the M&E system. These reviews will bring together staff implementing the system as well as M&E system clients like the donor, senior staff members and partners in order to assess whether the system is aligned with project priorities and effectively meeting client information needs. Review workshops should cover the following themes:

- Reviewing the causal model. Has the evidence gathered through implementation lead to changes in the causal model? If so, what were these and what changes will be required of the M&E system in responses?
- Reviewing data collection tools. Are the data collection tools efficient? Are they easily understood and applied by front line staff and others responsible for data collection? Are there opportunities to improve data collection efficiencies? Is the set of tools comprehensive enough / complete?
- Reviewing data feedback loops and information flows. Are clients of the system getting the information they need at the right frequency and with the right degree of accuracy? Are the observation-based indicators being effectively collected and information used to inform management?
- Reviewing roles and responsibilities. Are the roles and responsibilities initially defined in the M&E system design being followed? Are they realistic or are adjustments necessary?
- Data management and quality control. Are data management procedures and quality controls sufficient? Are they effective and being routinely applied or are adjustments necessary?

STEP 4: ADJUST THE M&E SYSTEM

Based on information uncovered from the M&E system monitoring and formal review workshops, M&E core teams need to adjustments to the M&E system and provide trainings on the changes. Since value chain projects frequently adjust the approach to overcoming value chain constraints, M&E core teams can expect to regularly update tools and data collection and analysis plans. This flexibility and willingness to adapt is a key dimension of successful M&E teams working on value chain projects. Once M&E system revisions are completed, teams will return to monitoring progress and planning for the next review workshop. At project inception teams may want to conduct a formal review workshop once every six months. After the first 12-18 months, shifting to an annual review will likely be sufficient.

E. Common Pitfalls

- Projects implement the baseline too early before the activities, locations, target group, and work plan have been finalized.
- Projects do not monitor the operation of the M&E system itself.
- Project management does not pay sufficient attention to M&E operations and results thereby diminishing its perceived importance to the rest of the project staff.
- Projects do not update the M&E system (including key performance indicators and targets) once it has launched.

Module 11: Evaluations and Value Chain Projects

A. Objective

In this chapter, you will learn about basic principles for doing evaluations of your value chain project. There exists significant demand among donors, CARE and M&E clients for credible evidence that value chain projects are having a positive and cost-effective impact. **All value chain projects should plan to conduct a baseline, midline and end line evaluation with an experienced external partner, whether a research organization, university, consulting firm or an independent consultant.**

The purpose of this chapter is to provide you with information you need in order to make informed choices about planning and implementing these evaluations.

B. Overview

This chapter summarizes basic principles of evaluations. The objective of the chapter is not to provide teams with a comprehensive guide to planning and conducting impact evaluations – many resources already exist on this (See Section E below for a list of additional resources on impact assessments). Instead, we focus here on key issues you will face in planning and implementing an impact evaluation of your value chain project and provide links to more information where necessary. The topics discussed in this chapter include:

- Distinguishing an impact evaluation from other types of evaluation
- Determining the purpose for the impact evaluation
- Determining the financial resources available for the impact evaluation
- Choosing a research methodology
- Determining other details of the research design
- Identifying the research team and partners
- Implementing the impact evaluation
- Impact evaluation resources
- Common pitfalls

Impact Evaluation versus Performance Evaluation versus Process Evaluation

Before going into the step-by-step guide for designing an impact evaluation, it is important to clarify what we are talking about. There are many kinds of evaluations teams can pursue, but these can largely be organized into three main categories:

Impact Evaluation	Performance Evaluation	Process Evaluation
Impact evaluations aim to determine if changes have taken place in the value chain or among value chain actors and if so, to what degree those changes can be <i>attributed</i> to CARE's work.	Performance evaluations aim to determine if changes have taken place in the value chain or among value chain actors and, if so, to what degree CARE's interventions <i>contributed</i> to those changes.	Process evaluations aim to assess whether and to what degree projects or programs have been implemented in line with the initial plan. So, they do not look at results directly but look at how the initiative is managed.
Impact evaluations are designed to answer, with the highest degree of confidence possible, what would have happened if CARE had not intervened? They do this by establishing a statistically valid counterfactual using control groups and experimental or quasi-experimental designs.	Performance evaluations use non-experimental designs, typically only gathering and analyzing data from people directly engaged or impacted by the project. As a result, they are lower-cost (no need to collect data on control group households) but also less rigorous.	Process evaluations are typically internal exercises that assess timeliness and quality of performance, identify any areas for improvement and generate plans to enhance the implementation process.

This chapter provides guidance on designing Impact Evaluations for value chain projects.

For information on performance evaluations see the Note on this page and related links to other resources on Performance Evaluation planning.

Impact Evaluations

The most unique aspect of an impact evaluation as compared to a performance evaluation is the creation of a statistically valid counterfactual using a control group.

A counterfactual is intended to help the project answer the question “what would have happened if we did not intervene?” By answering that question, teams are able to note that any changes they identify were caused (or can be *attributed*) to the project.

Creating a counterfactual, however, is difficult and can be costly, which is why many projects do not pursue impact evaluations.

Beyond CARE’s interventions, there are many factors outside of the project’s control—such as general market trends, economic shocks, weather conditions, and other government or donor programs—that also cause changes in the value chain and among value chain actors. The challenge for impact evaluation designers is to set up an approach to data gathering that will allow them to filter out the changes caused by these other external factors and isolate the changes that can be attributed solely to the project’s activities. In reality, it is nearly impossible to filter out all of the changes caused by other factors. But we can come reasonably close by combining thoughtful data collection, implementation and analysis methods.

The step-by-step guide below will take you through the things you need to know in order to create a counterfactual and successfully design and implement your impact evaluation. Note that as you go through these steps, you will want to seek guidance for each step from qualified technical experts, particularly if you and your team have not been through the process before. Other CARE members are a good first place to look to for support as are any technical experts with whom you may already be working. Other potential resources include local and international consultants and local universities.

C. Step-By-Step Guide

STEP 1: DETERMINE THE PURPOSE FOR THE EVALUATION

The first thing you should do is ask yourself: What is the purpose of the evaluation and who is it for?

Note: What If You Do Not Need or Want to Do an Impact Evaluation?



Many projects, particularly small-scale ones, will not need to do an Impact Evaluation. In those instances when you either lack the resources for or the need to pursue an impact evaluation, project teams can pursue Performance Evaluations, which do not aim to create a valid counterfactual and use non-experimental methods.

Common non-experimental methods include:

- The pre-post intervention design, which takes measurements from project clients before and after receiving project assistance.
- The post intervention design, which takes a single measurement of project clients after they have received project assistance.
- The performance evaluation, which assesses the project’s implementation and results as measured against the project’s objectives, scope of work, deliverables, and work plan.

The table in Section G summarizes various evaluation methods including performance evaluations.

For CARE guidance on designing and implementing a performance evaluation, visit the Program Quality Digital Library (PQDL) at:
<http://pqdl.care.org/Practice/Foms/DesignMonitoringEvaluation.aspx>.

Or download the CARE Design, Monitoring and Evaluation Guide:
<http://bit.ly/rIVwad>.

Although this step may appear obvious, many projects do not ask this question and end up with an inappropriate evaluation methodology that is poorly aligned with the interests and/or needs of the M&E clients. This means a lot of lost time, energy and money down the line. So, before pursuing an impact evaluation, consider your M&E System Client Map and the interests of those clients.

Typically there are three potential M&E clients that would want a project to conduct an impact evaluation: donors, policy makers or CARE itself. The motivations for conducting an impact evaluation include influencing decision making, particularly about CARE strategic priorities and/or how development resources are allocated by donors and government agencies. If you do not have plans for the evaluation to influence those sorts of decisions, an impact evaluation is likely not worth the cost involved and an alternative, less rigorous approach to evaluating your project will make more sense.

STEP 2: DETERMINE THE FINANCIAL RESOURCES AVAILABLE FOR THE EVALUATION

Any decision about evaluation methodologies must take into account the financial resources available to do the evaluation. As a general rule, the more rigorous the impact evaluation, the more it will cost. If your purpose is to provide attributable evidence of project impact, you should be prepared to pay tens of thousands of dollars and in many cases over \$100,000 for an impact evaluation that includes baseline, midline, and end line studies.

There are a number of ways to economize on the financial cost that may be appropriate for your situation. The costs for doing an impact evaluation vary considerably from country to country and will increase depending on the sampling methodology,¹ sample size,² number of research rounds, survey length,³ geographic dispersion of respondents, price of local research talent, and the use of international evaluation experts.

In practice, nearly all impact evaluations must accommodate to a degree the reality of budget constraints that limit the level of rigor you can practicably achieve. You should be aware, however, that there is a tradeoff between cost and rigor. Each compromise you make to reduce the cost of the evaluation is likely to cost you in terms of rigor.

If you have not designed or managed an impact evaluation previously, you should consider consulting an evaluation expert to help you understand what these tradeoffs are so that you can make informed decisions. Ideally, the evaluation expert would be independent of any agency you might hire to implement the actual study.



Warning! Best practice evaluation standards strongly recommend outsourcing impact evaluations.

The rationale for this is to ensure that the evaluation is objective and a fair assessment of performance. Just as bankers cannot approve their own loans, project staff members have an inherent conflict of interest in doing impact evaluations on their own work. Jobs, careers, and reputations are on the line such that project staff lacks the objectivity necessary to do a fair and accurate evaluation. Beyond this, project beneficiaries are expected to be less open and honest when talking to project staff than when talking to outsiders with no connection to the project. And, lastly, project staff members rarely have the experience or qualifications to structure and manage an impact evaluation effectively. All that said, Country Office M&E teams can provide incredible guidance to ensure the evaluation truly reflects the highest priority questions and the work of CARE and our partners – something a research institute cannot do for us.

STEP 3: IDENTIFY YOUR RESEARCH TEAM AND PARTNERS

¹ This refers to whether you use experimental or quasi-experimental sampling methods (see Step 3).

² Rigorous impact evaluation surveys typically involve samples into the hundreds and sometime thousands for both the treatment and control groups.

³ A rule of thumb is that an impact evaluation survey takes around an hour to complete give or take.

It is strongly recommended that you outsource the impact evaluation to an external researcher team. This will both improve the objectiveness of the evaluation and ensure that you have the expertise you need to design an effective study. Typically, the evaluation team will involve a local research firm with possible assistance from an international evaluation expert, consulting firm or a university.

Your first step will be to consider the Terms of Reference (TOR) for your research partner. Here are some of the activities and responsibilities you will want to consider tasking the firm with:⁴

- Working with your team to refine the evaluation design and sharpen the research questions;
- Designing the sample size and composition;
- Developing the research instruments;
- Translating the research instruments;
- Pilot testing the research instruments;
- Training survey enumerators and other field researchers;
- Managing the field data collection, including implementing agreed-on quality control measures;
- Entering the survey results into the survey data shell, including implementing agreed-on quality control measures;
- Cleaning the survey data set and preparing it for analysis;
- Producing English-language (or other appropriate language) transcripts and summaries of individual and group interviews;
- Analyzing the survey data set and/or individual and group interviews; and/or
- Preparing a report with the analysis and conclusions of the survey and/or interviews.

After receiving proposals from different research firms, you will need to evaluate the proposals and select the research firm that offers the best combination of technical expertise, experience, and cost. In evaluating the proposals, you may want to use an evaluation tool to help you score the firms on different selection criteria. You are, of course, free to design the TOR and research firm evaluation tool in the way best suited to your situation and needs. For more guidance on drafting TORs, see this how-to guide by the World Bank:

http://siteresources.worldbank.org/EXTEVACAPDEV/Resources/ecd_writing_TORs.pdf.

STEP 4: IDENTIFY YOUR RESEARCH QUESTIONS

Although you will have already given your research questions some thought, it is useful to leave these slightly open until you have identified your research partner. Frequently research partners have experience trying to answer similar questions and that knowledge can be quite valuable. In addition, these partners can help your team think through the best way to answer those questions and generate the maximum amount of useful information from your study.

When considering what your research questions will be, keep in mind that at a minimum they should measure the critical links and associated key performance indicators in the project's causal model. The particular focus of the impact evaluation is to verify whether higher-level results (lagging outcomes and impacts) in the project's causal model have occurred and can be attributed to the project. Notwithstanding, it is also important to verify whether the key intermediate results (leading indicators) in the project's causal model have occurred and can be attributed to the project so as to validate (or invalidate) the veracity of the project's causal model. Thinking through the research questions is one of the most exciting and also most important aspects of designing your evaluation. At the end of the day, people can measure anything. This is the point in the process where you make sure that you measure the things that are most important to you and your program. So, get your team and M&E clients involved early in helping to think this through. For some more thoughts on defining research questions, see the following publications by USAID and the International Program for Development Evaluation Training (IPDET):

⁴ Two useful examples from India and Zambia of what a Request for Proposals (RFP) for external research firms might look like can be found at this website: www.microlinks.org/ev_en.php?ID=13202_201&ID2=DO_TOPIC.

- www.usaid.gov/policy/evalweb/documents/TIPS-SelectingPerformanceIndicators.pdf
- http://gametlibrary.worldbank.org/FILES/362_Develop%20Evaluation%20Questions%20-%20IPDET%20module%204.pdf.

STEP 5: CHOOSE A RESEARCH METHODOLOGY

Once you have identified your research questions, you will turn your attention to decisions about how best to answer these questions with the resources you have available. This will lead you to a discussion on evaluation methodologies. At its core, this is a discussion about how you will create a comparison group and how you will roll out your project activities.

Before getting into the details of evaluation methodologies, let us clearly define a comparison group. A comparison group is a group of farmers, entrepreneurs, business owners, etc. who are not engaged by and do not benefit from project activities, but who are otherwise very similar to the actual project beneficiaries. In impact evaluation jargon, the comparison group of non-beneficiaries is called the control group and the group of project beneficiaries is called the treatment group. When setting up a control group, evaluators aim to ensure that these individuals are as similar as possible to the treatment group, enabling them to compare the two groups and propose that the only theoretical differences between them are the project interventions. This enables the evaluation to isolate the impact of the project from impacts that might be caused by the broader environment.

Unfortunately, it turns out that not all control groups are created equally. Some are better than others, and some are outright bad. The issue here is a technical concept that evaluation experts call selection bias. Selection bias occurs when members of the treatment and control groups differ in important ways that are not factored into the evaluation design and data analysis. There are two sources of selection bias: observable characteristics and unobservable characteristics.

Observable Characteristics	Unobservable Characteristics
<p>Observable characteristics include things that can be seen or tangibly measured, such as sex, education, age, location, and so forth. Observable characteristics, if not considered in your evaluation design, can lead you to the wrong conclusions.</p> <p>Example. Imagine that your treatment group was 90% male / 10% female and that your control group was 40% male and 60% female. How comparable do you think the two groups are?</p> <p>With this control group, it would be difficult (if not impossible) for you to determine whether different outcomes between the treatment and control groups were a result of the project or a result of the pre-existing gender differences between the groups.</p> <p>Selection bias due to differences in observable characteristics can materialize in any number of demographic categories. Educated farmers are not the same as uneducated farmers. Microenterprise owners in urban areas are not the same as microenterprise owners in rural</p>	<p>Unobservable characteristics refer to those aspects of an individual's personality that play a large role in determining how successful he or she is. These include things such as personal initiative, entrepreneurial spirit, risk orientation, persistence, self-confidence and optimism.</p> <p>People who volunteer to participate in value chain projects differ in important ways from those who do not. They tend to have a stronger entrepreneurial spirit, lower risk aversion, greater persistence, etc. than the average person. Assume, for example, that the above maize value chain project assists maize farmers to adopt a new hybrid seed variety. Those farmers who take the chance and adopt the new seed variety are clearly less risk adverse than non-adopters and probably more dynamic in other areas of their lives as well. If we were to compare this group of farmers to a control group of non-adopters or even to the typical maize farmer, we could never know to what extent any observed differences in farming outcomes are the result of the project or the result of the pre-existing personality differences between the two groups.</p> <p>So, unobservable characteristics also need to be</p>

areas. And so on.

factored in as teams consider their approach to evaluation methodologies and how you will establish a control and treatment group.

As you can see, the more you want to ensure you have truly comparable groups, the more challenging the evaluation design can become. There are two primary evaluation methodologies that you can use to overcome these biases: experimental methodologies and quasi-experimental methodologies.

Each has their strengths and weaknesses:

Experimental Methods: Imagine that you wanted to test the effectiveness of a new medicine. The way you test it is to do an experiment. You take a group of people who suffer from a common malady and randomly assign some of them to receive the medicine (treatment) and randomly assign others to receive a placebo (control). You next follow them over time and observe how they fare. If the people receiving the medicine get better and those who receive the placebo do not get better, you conclude that the medicine works. If neither group gets better, or if both groups get better, you conclude that the medicine does not work.

Experimental evaluation methods follow the same basic approach. The essential idea is to take a group of potential project participants and randomly assign some to receive project assistance and others not to receive project assistance. Applying this to our maize farmers you would identify a group of maize farmers who satisfy project entry requirements and then randomly assign some to receive project assistance to plant hybrid maize and randomly assign others not to receive project assistance. By randomly assigning them to control and treatment groups in this way, you distribute the observable and non-observable characteristics of the farmer population into the treatment and control groups and thus *theoretically* eliminate all potential sources of selection bias.

Typically, however, there are many reasons you cannot randomly assign farmers themselves into the project. An alternative (albeit somewhat less rigorous) approach is to randomly select the sites where you establish project operations. We know that value chain projects carefully select where they establish their operations preferring locations that offer greater prospects for success (however defined). But, this non-random site selection is an important source of selection bias from an evaluation perspective – it leaves you comparing people in preferred locations to people in less preferred locations.

To overcome this, teams can consider identifying a number of locations that meet your site selection criteria and then randomly assigning some locations to receive project support and others not to receive project support. Once your operational sites are defined, you would randomly sample maize farmers in each location to create your treatment and control groups.

Experimental evaluation methods—also referred to as randomized controlled trials or RCTs—are widely considered to be the most rigorous, or gold standard, of impact evaluation methodologies and current trends reveal a rapidly growing demand for RCTs.

For all their virtue in eliminating selection bias, however, RCTs have some important downsides that you need to keep in mind:

1. Designing and implementing the randomization protocols can be quite complicated, time consuming, and operationally burdensome. In some cases, they can delay project activities for weeks or more. RCTs also cannot be superimposed on an existing project design but must be closely integrated into project design and operations from the start since the study will dictate where and when activities can start. They also require a high level of ongoing monitoring to be sure that project staff fully and consistently execute the experimental model.

2. Project stakeholders may perceive random assignment as unethical in the sense that random assignment seemingly arbitrarily allocates valuable services to some beneficiaries and not others rather than targeting them to those who need them most or could most benefit from them.
3. Not all value chain projects lend themselves to random assignment. Projects that are generally poor candidates for experimental evaluation methodologies include projects with a small number of potential beneficiaries, projects in which beneficiaries cannot be identified ahead of time, projects that have a mandate to work with a specific set of beneficiaries or in specific locations, or projects for which no control group is available, such as those working to facilitate broad-based policy reform.
4. Value chain projects operate in complex and dynamic market systems, often at multiple levels. As a result, value chain projects must frequently evolve their strategies and activities in order to adapt to their changing environment. By contrast, experimental methods are best suited to situations in which both the operating environment and the intervention plan remain reasonably static and/or predictable.
5. Value chain projects are designed to deliberately influence the actions of market actors beyond those directly engaged by the project. By taking this systemic approach, value chain projects make it increasingly difficult to establish a viable and appropriate control group or, put another way, for evaluation designers to reasonably 'control for' changes in the environment that was not influenced by the project.

In the end, relatively few value chain projects are likely to use an experimental evaluation, for all the reasons listed above. The more common approach to value chain project evaluations is to apply quasi-experimental methods.

Quasi-Experimental Methods: After experimental methods, quasi-experimental methods are the next most rigorous impact evaluation methodology.

Quasi-experimental methods differ from experimental methods in that they do not randomly assign subjects into treatment and control groups, but instead compare pre-existing groups via a matching process. In this process, projects identify their sites and target participants as they normally would. Treatment group members are then selected via random sampling from within the population of target beneficiaries identified by the project. Control groups are established next by identifying areas and communities that match the treatment in as many ways as possible, primarily using observable characteristics to establish a comparison, and then selecting control group members via random sampling of the relevant population living in those areas and communities.

Returning to our maize farmer example, the treatment group would be a representative sample from the population of farmers who are receiving, or are expected to receive, project assistance to plant the hybrid seeds. The control group would be a representative sample of maize farmers who live in areas similar to the treatment group farmers and who are as similar as possible to the control farmers in terms of their observable and unobservable characteristics, but will not benefit from project assistance.

This method is the most commonly used approach to designing impact evaluations for value chain projects, although quasi-experimental methods are less rigorous than experimental methods for two reasons:

- First, it is nearly impossible to get a perfect match between your treatment and control group members. Try as you might, there is bound to be some amount of difference between the two groups in terms of observable characteristics.
- Second, matching is even more imprecise when it comes to unobservable characteristics. They are, after all, unobservable. So, there is inevitably some amount of unknown selection bias with all quasi-experimental matching techniques.

How do you make the choice between experimental and quasi-experimental methods?

Choosing between Experimental and Quasi-Experimental Methods: In choosing between experimental and quasi-experimental methods, you should ask the following questions:

- Will our M&E system clients be less well served if we opt for a quasi-experimental design over an experimental design? Going back to the first step in VC M&E design – client mapping – our key question should always be what is of most importance to the greatest number of M&E clients. We should only consider an experimental design if our M&E clients want one. Then, if they do, we need to consider if this is a reasonable goal to pursue in light of other client interests and our resources.
- Is our project amenable to random assignment? Is the project designed in a way that would enable you to randomly select who does and who does not benefit from the project?
- Is random assignment operationally feasible? Can we accommodate the random selection of clients and/or project sites into our project design, planning, and implementation without imposing too unreasonable a burden on our systems and staff?
- Can we manage/overcome the anticipated opposition from our project staff and external stakeholders?
- Is random assignment worth it? Is the tradeoff of an increased operational burden worth the improvement we get in statistical credibility?

If the answer is 'Yes' to each of the above questions, then it is appropriate to do an experimental impact evaluation. If, however, the answer is 'No' to any of the above questions, then it is not appropriate to do an experimental evaluation, and you should do a quasi-experimental evaluation instead.

Generally, the financial cost is a less important determinant in choosing between an experimental or quasi-experimental methodology; the two methodologies cost more or less the same amount out of pocket. Experimental methods, however, may entail other potentially significant non-financial costs in terms of operational delays and burdens associated with developing and implementing the randomization protocols.

Technical and staff constraints are also generally less of an issue for impact evaluations, assuming that they are outsourced to external researchers, which is the best practice norm for impact evaluations. In this case, the primary costs will occur early during the planning stage where staff time and expertise are required to develop the details of the evaluation design and logistics.

STEP 6: DETERMINE THE OTHER DETAILS OF THE RESEARCH DESIGN

Once you have decided on your research methodology, there are a number of other details of the impact evaluation design that require your attention. These include determining (1) the sample size and composition, (2) whether to do a panel study or a trend study, (3) whether to use a single method or mixed methods, and (4) when to do the baseline data collection.

Sample Size and Composition: Regardless of whether you decide to use experimental or quasi-experimental methods you need to determine the size and composition of the sample.

Determining the appropriate sample size and composition depends on a variety of factors, such as the desired precision and confidence level, the expected degree of variability within the population, the expected survey response rate, and the number of sub-groups (or strata) included in the sample. Sampling is a particularly technical task and should only be done by someone with the required experience and skills. For more on sampling principles and methodologies, see the following publications by the Food and Nutrition Technical Assistance Project (FANTA) and IPDET:

- www.fantaproject.org/publications/sampling.shtml
- www.worldbank.org/oed/ipdet/modules/M_09-na.pdf
- <http://gsociology.icaap.org/methods/sampling.html>

Trend Study vs. Panel Study: If your impact evaluation includes at least two data collection rounds, you will need to decide whether to do a panel study or a trend study. A panel study includes the same cohort of people in the baseline and all subsequent data collection rounds. In contrast, a trend study takes random samples of the target population(s) in each data collection round.⁵

Trend studies provide information about net changes at an aggregate level. They are useful for assessing patterns in broad changes over time. Trend studies, however, cannot answer causal questions because there are no specific changes in the key performance indicators.

Unlike trend studies, panel studies can reveal both net change and gross change in the key performance indicators in addition to shifting attitudes and patterns of behavior that are not picked up in a trend study. They also provide data suitable for types of sophisticated statistical analysis that enable researchers to predict cause-effect relationships. Since the research progresses over a period time, a panel study can allow for the influences of competing influences on the subjects, which might increase the generalizability of the study. As a general rule, therefore, panel studies are preferable to trend studies.

To demonstrate, assume that our impact evaluation of the maize project seeks to measure, among other things, the rate of adoption of hybrid maize seeds and the change in maize yields. A trend study would tell us only the general trends in terms of hybrid seed adoption rates and maize yields among the target farmers and the factors that are broadly associated with the observed changes. It would not be able to tell us anything more specific about the change in adoption rates or the change in maize yields among the target farmers nor which specific factors at the farmer level are actually causing the changes. In contrast, a panel study would allow us not only to measure specific rates of change among the target farmers and the specific factors causing them at the farmer level, but also the absolute and relative size of these causal relationships.

Single Method vs. Mixed Methods: Doing an experimental or quasi-experimental impact evaluation generally includes a survey of a representative sample of project beneficiaries and non-beneficiaries that aims to get specific and accurate quantitative information on project results and to attribute these results to project activities. Experimental and quasi-experimental evaluations may also include complementary qualitative research methods as part of a mixed-methods evaluation design.

Wherever possible, mixed-methods evaluations are preferable to quantitative only or qualitative only evaluation designs. Quantitative methods are useful for analyzing average tendencies among evaluation subjects, comparing population sub-groups and attaching specific values to project results (i.e. the percentage of participants whose income increased, reduction in hunger scores, etc). In contrast, qualitative methods add depth and nuance to evaluation findings, which are useful for understanding context and to avoid misinterpreting the quantitative findings.

In short, quantitative methods are most useful for answering questions about whether circumstances have changed on a large scale and how much they have (or have not) changed. Qualitative methods are



Note: Get a Qualified Technical Expert to Design the Sample Size and Composition

Getting the sample size and composition right is critical to ensure the statistical credibility of your impact evaluation. It is also a highly technical task that requires advanced knowledge of statistics and sampling methodology. It also helps greatly to be familiar with the geography, culture, and other characteristics of the local environment from where the sample is drawn. You should, therefore, make sure that you consult or hire someone with the requisite methodological and local knowledge to design the sample size and composition.

⁵ The nature of experimental evaluations means that they can only be done as a panel study.

most useful for answering questions about why and how changes did or did not occur. When evaluations combine quantitative and qualitative methods, teams typically learn much more about both what happened and why.

Early Baseline Data Collection vs. Delayed Baseline Data Collection: Best practice in evaluation stipulates that baseline data collection should occur at or shortly after interventions begin in any geographic area. In this way, the survey can capture all of the change in the key performance indicators that occur as a result of project operations. If the baseline is delayed, there is the risk that changes in key performance indicators may have already occurred by the time the baseline is done resulting in a misrepresentation of actual project impact.

Doing the baseline at or soon after project launch, however, creates its own set of risks. If the baseline is done before the project activities, target clients, locations, work plans, etc. have been finalized, the type and/or location of project activities, as well as its target clients, may change in the interim between the baseline and the follow-up survey round. This means you have gathered data you cannot use for the final evaluation.

In some cases, it is possible or may be necessary to collect baseline data on a rolling basis as implementation proceeds. For example, imagine that the maize hybrid seed project is being rolled out sequentially across three provinces over a three-year period. Data collected in the first province will serve as baseline for Year 1; data collected in the second province will serve as baseline for the second province in Year 2; and data collected in the third province will serve as baseline for that province in Year 3.

In any case, teams need to be thoughtful about when to initiate the baseline assessment and how to do this.

STEP 7: IMPLEMENT THE IMPACT EVALUATION

With your evaluation designed and your partner onboard, you are now ready to implement the impact evaluation. You will need to work closely with the local research firm, project staff and (as relevant) implementing partners and local authorities/community leaders to plan and implement the evaluation.

While implementing the impact evaluation, you will want to make sure to monitor the research firm closely at each stage in the implementation process (enumerator training, pilot testing, survey implementation, data entry and cleaning, and report preparation) to make sure that it is closely adhering to the expectations spelled out in the TOR or otherwise negotiated with the project. To do this, you should assign someone the specific task of monitoring the research firm's performance. This includes accompanying the research firm into the field to monitor the implementation of the evaluation research. This person might be a project staff member, a local or international consultant, someone from CARE HQ, or even a local or international graduate student.

D. Impact Evaluation Resources

There are a large number of on-line resources that can help you plan and implement your impact evaluation. Those listed below are some of the more useful resources grouped into the following



Note: What Are Common Data Collection and Data Entry Quality Control Measures?

Common data collection quality control measures include random spot checks of survey enumerators, re-surveys of randomly selected respondents, reviewing each completed survey in the field for completeness and for coding or other data entry errors, holding daily review and planning meetings by enumeration teams, and redoing surveys that are incomplete or that have multiple coding or other data entry errors.

A common data entry quality control measure involves randomly sampling surveys and comparing them to the data entry. An excessive number of discrepancies would trigger more general review of data entry accuracy. Perhaps the best quality control measure, however, is double data entry in which separate individuals enter the survey data for each survey. The two data sets are then compared and discrepancies are flagged for further follow-up.

categories: (1) evaluation firms, (2) donor organizations, (3) networks and associations, and (4) web resources. (Web resources are on-line evaluation resources that are not formally associated with an individual or an organization.) As with anything else in the Internet age, however, a wealth of other impact evaluation resources is only a Google search away.

Evaluation Firms

Abdul Latif Jameel Poverty Action Lab (J-PAL)
www.povertyactionlab.org

Innovations for Poverty Action (IPA)
www.poverty-action.org

International Food Policy Research Institute (IFPRI) Impact Assessment Program
www.ifpri.org/book-25/ourwork/researcharea/impact-assessment

Donor Organizations

International Program for Development Evaluation Training—Course Modules
www.worldbank.org/ieq/ipdet/modules.html

United Nations Evaluation Group
<http://www.uneval.org/>

USAID Private Sector Development Impact Assessment Initiative (PDSIAI)
www.microlinks.org/psdimpact

World Bank Development Impact Evaluation Initiative
<http://web.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDEVIMPEVAINI/0,,menuPK:3998281~pagePK:64168427~piPK:64168435~theSitePK:3998212,00.html>

World Bank Independent Evaluation Group
www.worldbank.org/ied/

Associations & Networks

American Evaluation Association
www.eval.org

Donor Committee for Enterprise Development (DCED)
www.enterprise-development.org

InterAction Monitoring & Evaluation
www.interaction.org/monitoring-evaluation

International Initiative for Impact Evaluation (3IE)
www.3ieimpact.org

Network of Networks on Impact Evaluation (NONIE)
www.worldbank.org/ieq/nonie/index.html

Web Resources

Evaluation Portal
www.evaluation.lars-balzer.name/

E. Common Pitfalls

- Teams do not conduct appropriate due diligence about their evaluation options, or fail to seek expert advice, and end up implementing evaluation methodologies that are either too rigorous or insufficiently rigorous for their needs.
- Teams implement the baseline data collection too soon such that subsequent changes to the project's strategy or work plan end up invalidating the baseline results.
- Teams implement a trend study when a panel study would have been both preferable and possible.
- Teams load up the impact survey with excess questions that are either unrelated or only tangentially related to their objectives, thus driving up the cost and complexity of the evaluation beyond what is necessary.
- Teams do not monitor the local research firm's adherence to the TOR, including the quality of the fieldwork and data entry, leading to data quality problems that delay data analysis and compromise the credibility of the findings.
- Teams do not budget or plan for mixed-methods evaluations resulting in important losses in the contextualization or generalizability of the evaluation findings.
- Teams do not seek advice on sampling from qualified technical experts resulting in samples that are non-representative, do not allow the type of analysis required by the project, and/or do not achieve sufficiently high levels of statistical precision.
- Teams inappropriately attribute evaluation findings to project activities when using less rigorous or non-rigorous evaluation designs that do not create valid counterfactuals.
- Teams attempt to implement the impact evaluation using project staff resulting in poor quality, unreliable data and undue impositions on staff time.
- Donors demand rigorous evaluations but do not allocate sufficient funding to implement them.
- Projects make compromises to the evaluation methodology, or alternatively insist on more rigorous evaluation methodologies, without understanding the tradeoffs involved.
- Evaluation reports do not fully disclose the tradeoffs made in creating the evaluation design and the implications of these tradeoffs for evaluation rigor.
- Projects do not closely monitor the performance of external research firms. Research firms often fail to adhere closely to the expectations in the evaluation TOR or otherwise negotiated with the project. Almost inevitably, issues arise during implementation of the impact evaluation that require decisions by someone representing the project's interests. The failure to monitor research firm performance closely can result in any number of problems that potentially undermine the reliability, validity, usefulness, etc. of the impact evaluation.

F. Templates and Supporting Materials

Comparison of Impact Evaluation Methodologies

Methodology	Description	Cost	Rigor	Drawbacks
Experimental	<p>Randomly assigns persons to receive or not receive project services.</p> <p>And/Or:</p> <p>Randomly selects sites/locations to receive or not receive project services.</p> <p>Includes two or more data collection rounds including a baseline, endline, and possibly midline.</p> <p>Includes a formal impact survey and may include complementary qualitative data collection methods.</p>	<p>High cost</p> <p>Costs approximately the same out-of-pocket as quasi-experimental methods but is also likely to include significant non-financial costs related to project delays and staff time to implement and enforce randomization protocols.</p>	<p>Most rigorous evaluation design that theoretically eliminates both observable and unobservable sources of selection bias.</p>	<p>Likely to raise serious objections from staff, client, and other stakeholders due to (1) the operational burdens of implementing and enforcing randomization protocols, (2) ethical question related to withholding valuable services from deserving people, and (3) the inability of political figures and other stakeholders to control the allocation of services and resources to political patrons or preferred clients.</p> <p>Relatively few value chain projects satisfy all the criteria to make an experimental evaluation feasible.</p> <p>The complexity and dynamic nature of value chains and value chain projects may be inappropriate for static, random assignment methods.</p>
Quasi-Experimental	<p>Matches a group of project beneficiaries to a group of non-beneficiaries on observable characteristics.</p> <p>May also attempt to match project beneficiaries to a group of non-beneficiaries on unobservable characteristics using a screening tool.</p> <p>Includes two or more data collection rounds including a baseline, end line, and possibly midline.</p> <p>Includes a formal impact survey and may include complementary qualitative data collection methods.</p>	<p>High cost</p> <p>Costs approximately the same out-of-pocket as experimental methods but does not include significant other non-financial costs.</p>	<p>Second most rigorous evaluation design. Does a reasonable to good job eliminating observable sources of selection bias.</p>	<p>Matching treatment and control groups on observable characteristics inevitably results in an imperfect match leaving some unknown, and potentially significant, level of selection bias in the sample.</p> <p>It may be possible to match groups on unobservable characteristics using screening tools but this is a poor substitute for random assignment and cannot control for all sources of unobservable selection bias.</p>

<p>Pre-and post-intervention treatment group and post-intervention control group</p>	<p>Includes a post-intervention treatment and control group in the end line but no pre-intervention comparison group in the baseline.</p> <p>Treatment and control groups are selected using random sampling methods.</p> <p>Includes a formal impact survey and may include complementary qualitative data collection methods.</p>	<p>Moderate cost</p> <p>Has the potential to save up to 25% in data collection costs resulting from eliminating the baseline control group.</p>	<p>Moderately rigorous evaluation design. Can achieve a reasonable level of rigor.</p> <p>Generally considered a sound impact evaluation design.</p>	<p>Less rigorous than an experimental or quasi-experimental design.</p> <p>Absence of a control group in the baseline limits the analysis that can be done and conclusions that can be drawn, particularly in terms of relative changes between the treatment and control groups.</p>
<p>Post-intervention treatment and control group with no baseline data</p>	<p>Includes data collection from a treatment and control groups at the end of the project but does not include baseline data collection.</p> <p>Defines the post-intervention control group as the counterfactual, assuming that any differences between the treatment and control groups are due to project activities.</p> <p>Treatment and control groups are selected using random sampling methods.</p> <p>Includes a formal impact survey and may include complementary qualitative data collection methods.</p>	<p>Low cost</p> <p>Has the potential to save up to 50% in data collection costs resulting from eliminating baseline data collection.</p>	<p>Less rigorous evaluation design. Assumes that there are no significant pre-existing differences between the treatment and control groups in the baseline.</p> <p>Considered a sound impact evaluation design where the above assumption reasonably holds.</p> <p>Commonly used when the evaluation begins late in the project cycle or when the project has ended.</p>	<p>Results in potentially significant and unknown selection bias if the two groups are different in the baseline. The assumption of no significant differences in the baseline is unlikely to hold true in practice.</p>
<p>Pre- and post-intervention treatment group</p>	<p>Includes baseline and end line data collection from a treatment group but does not include a control group in either the baseline or end line.</p> <p>Treatment and control groups are selected using random sampling methods.</p> <p>Includes a formal impact survey and may include complementary qualitative data</p>	<p>Low cost</p> <p>Has the potential to save up to 50% in data collection costs resulting from eliminating the control group.</p>	<p>Non-rigorous evaluation design.</p> <p>A widely used evaluation design that is simple and convenient to implement,</p>	<p>Identifies project impacts only under very strong and typically improbable assumptions that changes are not a function of time.</p>

	collection methods.		particularly in situations in which data are available for project beneficiaries but not for non-beneficiaries.	
Post Intervention treatment group without baseline data or a control group	<p>Includes endline data collection from project beneficiaries.</p> <p>Estimates of change are based on a combination of quantitative and qualitative data collection methods and rely heavily on respondents' recall and perceptions.</p> <p>Respondents are selected using random and/or non-random methods.</p>	<p>Low cost</p> <p>Has the potential to save up to 75% in data collection costs resulting from eliminating the control group and baseline data collection.</p>	<p>Non-rigorous evaluation design.</p> <p>Used frequently by projects operating under tight evaluation budgets or late in the project cycle when there is not time to do a more rigorous evaluation.</p>	<p>This is generally considered the weakest evaluation design is incapable of producing rigorous quantitative estimates of project impact.</p>
Performance Evaluation	<p>Purpose is not to generate credible estimates of project impact but to assess the project's implementation and results against its objectives, scope of work, deliverables, work plan, etc.</p> <p>Also provides information on whether project activities were accomplished, how well activities were implemented, whether the target audience was reached, and how external and internal factors affected project implementation and results.</p>	<p>Low to moderate cost</p>	<p>Non-rigorous evaluation design.</p>	<p>Projects often misuse the findings from a performance evaluation to draw conclusions about project impact.</p>