

# Monitoring and Measuring Change in Market Systems: *The Systemic M&E Principles in the Context of the Kenya Market Assistance Program*

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Kenya  
case study

2013

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## ACRONYMS

ASI	Adam Smith International
CODA	Cotton Development Association
DFID UK	Department for International Development
FHI 360	Family Health International 360
FIT	FIT Resources Ltd.
ICT	Information Communication Technologies
KGT	Kenya Gatsby Trust
KMT	Kenya Markets Trust
KRT	Knowledge and Results Team
M4P	Making Markets Work for the Poor
MAP	Market Assistance Program
MaFI	Market Facilitation Initiative
M&E	Monitoring and Evaluation
NGOs	Non-Governmental Organizations
R&D	Research and Development
SEEP	Small Enterprise Education and Promotion Network
SNV Kenya	Netherlands Development Organization Kenya
USAID	United States Agency for International Development

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Name	Function
Mike Field	Portfolio Adviser
Richard Waddington	Portfolio Director
Emmah Odundo	Regional Manager - Kisumu
Chiranjibi Tiwari	Portfolio Manager - Water Access
Francis Muema	Portfolio Manager - Cotton
Violet Omenyo	Intern - Cotton
Susan Maina	Portfolio Manager - Inputs and Aquaculture
Clement Tulezi	Portfolio Manager - Media
Irene Angwenyi	Media Officer
Wanjiku Kimamo	Operations Director
Judy Odongo	Knowledge and Results Manager
Peter Mbiyu	Knowledge and Results Manager
Hannington Isiaho	Intern - Knowledge and Results
Julio Disouza (not MAP staff)	Managing Director – Farmshop (agro-input dealer)
Rachel Brooks (not MAP staff)	Managing Director-Echo Mobile

# EXECUTIVE SUMMARY

A basic premise of systemic M&E is that markets are complex adaptive systems that continually evolve and adapt. To be effective, *M&E frameworks for inclusive market development must embrace systemic thinking and complexity science as well as cultivate flexibility and organizational learning*. Following this new premise, this case study presents arguments for using new basic principles to design and manage appropriate M&E frameworks.<sup>1</sup>

This paper evaluates the validity and usefulness of seven principles for appropriate design and management of systemic M&E frameworks. It puts them to the test in the context of the Market Assistance Program (MAP) in Kenya and its institutional host, the Kenya Markets Trust (KMT). MAP's main objective is to improve the income growth of poor people using a facilitation approach and catalytic interventions that target the underlying systemic constraints that hinder their participation in selected markets, such as cotton, dairy and aquaculture.

The following list describes the seven principles that were exposed to the context of MAP and some of the main lessons learned and insights gained from each principle:

**Principle 1: Indirectness of Impact.** This principle forms one of the basic premises of MAP—that systemic change cannot be directly delivered by a development initiative from the outside but needs to emerge from within the system. All MAP staff members agree with this principle and are implicitly using it to inform their strategies. However, three important issues remain unresolved:

- The difference between direct and indirect beneficiaries becomes practically useless in the context of facilitation of systemic change;<sup>2</sup>
- Despite this, donors are still very interested in reporting on direct and indirect beneficiaries;
- However, counting indirect beneficiaries is still a technical challenge.

This creates a challenge for MAP's M&E framework, as the information needed for management and learning is different from the information required by donors. MAP has created a "twin-track M&E system" in order to resolve this tension.

**Principle 2: Depth of Impact.** The concept of depth of impact was widely accepted by the program staff and is also reflected in the program's theory of change and M&E framework. The program is giving strong emphasis to behavioral aspects of the market actors but also looks beyond the individual market actors and their business models to find patterns that are emerging in the wider system. The importance of depth of impact manifests in the numerous and varied ways that MAP is monitoring and measuring results. The teams are looking for a whole range of indicators and signals that tell them that change is occurring at deeper, more structural levels of the system. However, there is still pressure from donors to focus on reporting impacts in the form of superficial changes, such as increased income or numbers of jobs.

**Principle 3: Network-driven Change.** The program works with *collaborators* who have potential to produce changes that "reverberate" throughout the system. However, change is driven by the collaborators' networks (for example local input retailers), not by them as individuals. MAP staff members are learning about the importance of understanding

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1. An M&E framework is the set of approaches, processes, structures, procedures, methods, and tools that sustains the operation of monitoring and evaluation in a given program. In this paper, the term *M&E framework* is used as an equivalent of *M&E system* to avoid confusion with the word *system*, which is used in reference to markets.
2. There are two reasons for this: First, facilitators engage key actors who can drive change within the system. These actors can benefit from this interaction (e.g., through a subsidy to pilot a new business model or technology), but their function is not to receive a benefit from the facilitators but to collaborate with them to transform the system (this is why the term *collaborator* is proposed). Second, there are multiple feedback loops and synergies whereby the so-called beneficiaries benefit from an improved system, but they also benefit the system through their everyday decisions and attitudes (the typical dynamic agent-structure). Even the word *beneficiary* suffers in the context of facilitation of systemic change.

the structures and dynamics of networks and realizing that market actors are not just “dots on a market map.” As a consequence, the selection of collaborators who can mobilize their own networks and align them with the objectives of the program is crucial. MAP staff members create conditions for self-selection of key collaborators and pay attention to their influence on their own networks. However, MAP’s M&E framework does not yet have procedures or tools to measure network structures and dynamics. A lot remains in the subjective or intuitive domain, linked to the people who interact with the networks on a regular basis.

**Principle 4: Unpredictability.** Practically all MAP staff members recognize this principle and are trying to overcome the challenges posed by it through an organizational culture that rewards faster learning, course correction, and adaptation to unexpected circumstances. MAP is moving away from long-term strategic analysis and planning of fixed indicators and goals toward more flexible strategies, plans, and measurement. It is also putting in place one of the cornerstones of iterative learning and effective response: the creation of spaces for the teams to discuss and re-evaluate interventions, exchange lessons quickly and reflect about progress and challenges. They are also working together to make sense of emergent patterns through an organizational culture that promotes trust and values mistakes and problems as opportunities for success.

**Principle 5 - Sensitivity to external signals:** this principle has shown to be an important determinant of MAP’s facilitation activities. When MAP staff members approach market actors, these react in different ways depending on their perceptions, preconceptions and interests. How a program uses its own identity is, thus, very important and needs to be tailored to the specific situation. This finding challenged the original hypothesis that minimizing the possibility of being perceived as an influential subsidy-giver or helper was the only recommended strategy for facilitators. The key lesson is that successful facilitators can manage the signals they send to promote self-selection and determine the honesty and commitment of strategic actors who are willing to collaborate. MAP teams are learning that such honesty and commitment are indicators of positive trends and have even stopped collaborating with markets actors when these traits are lacking. However, the identification of such trends still depends on staff member’s “gut feelings”.

**Principle 6: Information Deficit.** MAP teams strive for continuous learning through observation, discussion, and analysis of the information produced by the M&E framework. At the same time, the framework is updated whenever necessary to reflect the needs of the staff and is, hence, co-evolving with the staff’s knowledge and understanding of the system. MAP staff members are learning the importance of doing fewer detailed, hands-off analyses (“cold” analyses) and more “full immersions” in the system, which entail closer and more frequent interactions with stakeholders to actually experiment with new ideas. Consequently, they attach a high value to information from field observations. However, once a MAP team agrees that a given type of new behavior change is important, it is added to the formal M&E framework to be measured regularly.

**Principle 7: Sustainability as Adaptability.** The adaptability of the market system and the adaptability of the market actors are at the center of the program’s aims. This is evident in their efforts to increase the capacity of market actors to continue changing their own systems in the eventuality of shocks or new trends. The operationalization of this principle and particularly the measurement of adaptability seem to be in a rather early stage and are not formally articulated in the program documents or in the functions or roles of the different units.

An aspect that relates to more than one principle is the *evolutionary nature of the M&E framework*. MAP has learned the importance of starting with a framework that is, on the one hand, manageable and simple and that evolves organically according to the needs and skills of the teams. On the other hand, the framework must stay focused on relevant aspects of the dynamics of the market system. There are two processes of co-evolution taking place in parallel. In one process, the M&E framework evolves as team members gain a better understanding of their own work and the market system; in the other, the M&E framework evolves with changes in the market system itself.

One of MAP's most interesting M&E strategies is to *build the capacity of key market actors to become effective sources of relevant information* both for themselves and for the program (instead of MAP team members collecting all the monitoring data themselves). A collaborator of the program can be not only an effective driver of change, but also an effective provider of useful information about changes in the system.

*The case study shows high applicability and relevance of the principles in the context of MAP* and provides concrete examples of how an innovative program and staff committed to facilitation, systemic change, and organizational learning are applying the principles in their own organization and with market actors.

This report will contribute to how the principles are defined, explained, and communicated and, ultimately, to how they are applied by other practitioners, donors, and policymakers in inclusive market development programs in different contexts. Consequently, it makes sense to find ways to document more cases that can lead to the identification of patterns in the application and benefits of the principles in different contexts.



# Introduction

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## MaFI and the MaFI-festo

The Market Facilitation Initiative (MaFI) is a working group of the SEEP Network that focuses on the question of “how to become effective facilitators of inclusive market development initiatives.” In other words, the group’s focus is on how to create appropriate conditions—at the lowest costs and effort—for public and private market actors to make *their* systems work better to reduce poverty on a larger scale and more sustainably.

One of the main lessons emerging from several MaFI discussions is that becoming an effective facilitator is not just a technical challenge. It is also an organizational and political challenge, in the sense that project staff members are influenced by rules, procedures, and incentives created and enforced by their own organizations and donors, which hamper the ability to facilitate effectively.

In response to this insight, MaFI started a series of conversations that led to a set of proposals called “The MaFI-festo,”<sup>3</sup> to change the rules of the game to make international development cooperation more “facilitation-friendly.” The MaFI-festo focuses on four critical issues: (1) how facilitators work in the field, (2) balancing flexibility and accountability, (3) building the capacity of facilitators, and (4) what and how we measure change. The fourth issue challenges the use of M&E frameworks based on linear and mechanistic paradigms when it comes to assessing the impacts of donors and NGOs on market systems.

## The Systemic M&E Initiative

In 2012, a series of online discussions, an e-consultation, and a plenary during that year’s SEEP Conference brought together the voices and experiences of hundreds of SEEP and MaFI members. It created significant momentum around one of the issues proposed by the MaFI-festo: *what changes we pay attention to and how we measure them*. These events—which took place thanks to the support of USAID, SEEP, and FHI 360—led to the production of a synthesis paper<sup>4</sup> that proposed seven principles to inspire better design and more appropriate management of M&E frameworks that embrace and leverage the systemic and complex nature of markets.

Among the messages that came across clearly from the people who participated in the discussions during the 2012 conference and those who kindly provided comments and criticisms of the paper, two in particular inspired this case study:

- Continue reflecting upon the ideas in the paper to improve them, clarify them, and increase the agreement around them.
- Document examples where the principles and ideas proposed in the paper are making a real difference in the ability of development organizations to monitor and adapt to change and assess the impacts of their interventions.

In addition to being a direct response to the above requests, this paper is also a step toward the long-term vision of promoting appropriate applications of complexity and systems thinking to development practice and policymaking, in particular from the perspective of monitoring and evaluation of inclusive markets development.

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3. <http://slidesha.re/mafifesto2>

4. <http://www.seepnetwork.org/monitoring-and-measuring-change-in-market-systems---rethinking-the-current-paradigm-resources-937.php>

# Background

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## Theoretical Background

A basic premise of systemic M&E is that *markets are complex adaptive systems*. In order to properly interpret the principles and analyze them in the context of market systems, a basic knowledge of complex systems theory is helpful.

Complex adaptive systems have a large numbers of components, often called agents or actors, that interact, learn, and adapt to changes around them. In the case of markets, these agents can range from individuals and small, informal groups to highly sophisticated, large public institutions and private corporations; even community-based organizations and grassroots organizations can play important roles in these systems. Other common market actors are buyers, processors, cooperatives, intermediaries, wholesalers, retailers, consumers, technical training and R&D institutions, transporters, agricultural extension agencies, consultants, banks, microfinance organizations, etc.

The actions of agents in complex adaptive systems usually depend on the signals they receive. This means that they are constantly reacting and adapting to their environment and, in turn, sending out signals that prompt other actors to react and adapt. This leads to intricate feedback processes and further changes in the agents and the structures that connect them over time. These changes are usually adaptations that improve the performance of specific agents.<sup>5</sup>

Complex adaptive systems exhibit a number of important characteristics that are relevant for systemic M&E:<sup>6</sup>

- The interconnections, interactions, and interdependencies among heterogeneous agents can lead to situations where minor changes produce disproportionately major consequences. Conversely, big interventions might have no significant effect.
- The system has a history, and the past is integrated with the present, essentially because the actors' strategies have co-evolved with one another and with their environment.
- The interactions between the agents lead to emerging properties that can only be observed on the level of the whole system, not when looking at an individual agent.
- Solutions cannot be imposed; rather, they arise from the circumstances and compromises between agents. Therefore, in the context of complex systems, we talk about emerging practice, rather than good or best practice.
- Adaptive agents react to their context and to each other. Without a central power, they self-organize into functional units.
- Though a complex system may, in retrospect, appear to be ordered and predictable, hindsight does not lead to foresight because the conditions constantly change.

## Overview of the Principles

This section provides a brief overview of the seven systemic M&E principles. For a more elaborate summary, please refer to the systemic M&E synthesis paper.<sup>7</sup>

**Principle 1: Indirectness of Impact.** When a systemic approach is used, the endgame is to improve how the system works so that it enhances the livelihoods of marginalized people and increases productivity and efficiency on an ongoing basis. The objective, by definition, cannot be the direct delivery of inputs and services to the poor.

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5. John H. Holland (2006). "Studying Complex Adaptive Systems." *Journal of Systems Science & Complexity* 19: 1–8.

6. Marcus Jenal and Shawn Cunningham (forthcoming). "Gaining Systemic Insight to Strengthen Economic Development Initiatives--Drawing on Systems Thinking and Complexity Theories to Improve Developmental Impact." Mesopartner Working Paper.

7. <http://www.seepnetwork.org/monitoring-and-measuring-change-in-market-systems---rethinking-the-current-paradigm-resources-937.php>

**Principle 2: Depth of Impact.** Changes in a system can be of different types according to how structural and long-lasting (how “deep”) they are. They can range from the most superficial changes, such as variations in incomes and number of jobs, to the deepest changes, such as those related to self-awareness (i.e., when the system questions its own nature and evolution). All types of change provide useful information, but an exclusive focus on the most superficial ones will have negative consequences on sustainability and scalability. Closer attention must be paid to deeper changes such as the creation of new relationships, increased access to information, and shifts in behavior and power dynamics.

**Principle 3: Network-driven Change.** A market actor is not a dot on a market map or a monolithic entity that can be managed by the most senior director, owner, or representative. Both public and private market actors are in themselves systems or networks with varying degrees of complexity. Facilitators must work with the most influential members of these networks (the collaborators) before they start driving changes in the system. Members of these networks are first-movers or innovators who try to do things in different ways to improve the system; this is why the networks are called “precursor networks.” Facilitators must work to promote the dissemination, copying, and adaptation of the successes or lessons generated by the precursor networks.

**Principle 4: Unpredictability.** The behavior and evolution of complex systems resist prediction; this undermines the effectiveness of the mechanistic and rigid tools and approaches that are predominantly used in market development initiatives. Flexibility, rapid learning, and effective collaboration between facilitators, NGOs, and donors are key requisites to deal with and navigate this uncertainty.

**Principle 5: Sensitivity to External Signals.** The moment an NGO or a donor declares its intention to intervene in a market system, both public and private actors adapt their behavior and strategies, seeking to maximize benefits in many different ways (e.g., for economic gain, reputation, and influence). Facilitators must be very careful about the signals they consciously or unconsciously send when they engage with market actors, design and implement strategies, and monitor and measure change.

**Principle 6: Information Deficit.** No matter how much we know about a market system, there will always be bits of information that we ignore that can have important consequences on how the system performs and evolves. This challenges our ideas about how much should we know before we intervene in the system and begs for true participation (where co-creation is promoted), continuous learning, effective communication and collaboration among key stakeholders and partners, opportunism and flexibility throughout the design, implementation, monitoring, and evaluation.

**Principle 7: Sustainability as Adaptability.** The adoption of a systemic approach requires a shift in our understanding of the idea of “sustainability,” from the permanence of a given set outcomes through time to the capacity of a system to benefit from new opportunities and to minimize negative impacts through time. Therefore, it is necessary to develop M&E frameworks that can detect whether a system is building its capacity to adapt to shocks and new trends such as changes in consumer tastes and technology, the introduction of radical policies, natural disasters, and even socio-political revolutions.

## Case Overview: The Kenya Market Assistance Program

The Market Assistance Program (MAP) in Kenya is a multi-donor-funded program that aims to reduce poverty in Kenya through the application of the Making Markets Work for the Poor (M4P) approach. The institutional home for the program is the Kenya Markets Trust (KMT). MAP is implemented by a consortium led by Adam Smith International (ASI), which includes KMT, SNV Kenya, and FIT Resources Ltd. The main donors of MAP are the UK Department for International Development (DFID), the Gatsby Charitable Foundation, and the Royal Dutch Embassy.

The origins of KMT can be traced to the establishment in 1991 of the Kenya Gatsby Trust (KGT), one of four African trusts created and supported by the Gatsby Charitable Foundation in London. After becoming the institutional home for MAP, KGT entered a year of significant organizational restructuring and strengthening of its strategic focus, after which it was rebranded as KMT.

MAP was launched in 2011 and is expected to run until 2018. It focuses its interventions on the economic sectors of cotton, water, input supply, dairy, aquaculture, and media. MAP has a program budget in excess of £23m (USD37m) for the years 2013–2018 and plans to expand to other sectors such as oil and gas, livestock, and seeds.

The program’s main objective is to improve the income growth of poor and disadvantaged people in selected market systems. Its theory of change is that it will reach this goal by implementing catalytic interventions that target the underlying systemic constraints that hinder the participation of poor people in said markets. The interventions are designed to realign the incentives, rules, relationships, and support services that shape the way markets work and to change the way poor people participate in and access markets.

MAP has been showcased on various occasions as a program leading innovation in systemic development and approaches to measure systemic change, which makes it an ideal candidate for this case study. MAP is organized into three teams:

- The Portfolio Team is headed by Mike Field, working in coordination with sector managers responsible for the individual sector teams. This team focuses on improving the functioning of selected market systems through the engagement of strategic market actors; raising awareness about market system approaches among influential stakeholders; and promoting policies that enable private-public partnerships.
- The Operations Team is headed by Richard Waddington and focuses on M&E, capacity building of facilitators, organizational learning and knowledge sharing. The Knowledge and Results Team (KRT) is part of the operations team and is responsible for the design and management of M&E processes in close collaboration with the sector teams.
- The Finance Team is headed by Richard Carter and provides financial guidance and oversight of budgets and expenditure. This team was not interviewed for the case study.

### **Role of the Knowledge and Results Team**

The Knowledge and Results Team (KRT) is responsible for managing how KMT uses knowledge and learning effectively to achieve better results. Its goal is to operate innovative and effective approaches to knowledge management and results measurement for private-sector development programs. By combining both knowledge management and monitoring and results measurement in one dedicated team, KMT champions an innovative approach that it believes can become good practice for private-sector development programs in Kenya and other countries.

In summary, the main roles of KRT are as follows:

1. Design the knowledge and results frameworks and their supporting processes, tools, and products.
2. Act as an advisory unit to members of each portfolio team in applying the knowledge and results frameworks in their work. This recognizes that the portfolio teams are best placed to capture data and information as they are, in effect, “closest to the action.”
3. Ensure the quality of the information collected by the portfolio teams and project partners and the compliance with the quality standards built into the frameworks.
4. Act as a peer reviewer for each sector strategy, promoting reflection and challenging the sector teams about strategic direction and implementation performance.
5. Facilitate the dissemination of knowledge and lessons learned within KMT and among other change agents such as donors, governments, and NGOs (in collaboration with the communications and learning manager).

## Objectives

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The objective of this case study is to explore the concrete applications, implications, and challenges of the seven principles proposed in the systemic M&E synthesis report. The case study describes how the principles manifest in the planning and execution of the monitoring and evaluation processes of the Kenya Market Assistance Program (MAP) and its host organization, the Kenya Markets Trust (KMT). The findings of this case study are relevant for NGOs, donors, and policymakers working in inclusive market development.

# Methodology

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## Process

The case study followed a three-step process:

- 1. Preparation.** Through a desk study of program documents, the case study team familiarized itself with the program and developed the plan and interview guidelines for the field study based on that knowledge.
- 2. Field study.** The team spent five days with the program staff in Kenya, interviewing individual staff members and facilitating group discussions. A list of people interviewed can be found in the acknowledgments section at the end.
- 3. Report writing.** Based on the findings of the desk and the field studies, the case study team prepared this report. Feedback on draft versions of the report were solicited from MAP, as well as from the donor.

The focus of the three steps was very much concentrated on M&E issues. Specific strategic issues that were related to the principles but not to M&E in particular were not taken into account in order to keep the scope of the case study restricted to systemic M&E.

## Structure of the Report

The report is structured around three main sections. *Part 1 describes the application of the principles on the ground.* It first looks into how the principles are manifested in the program teams' assumptions and hypotheses of how change will happen through program interventions (manifestation of the principles in the theory of change). Second, it looks at how the principles manifest in how the teams observe and measure change, both in formal and in informal ways (manifestation of the principle in monitoring and results measurement). Third, it describes how the teams learn and adapt based on the logic of the principles (learning and adaptation in the program teams). This section comprises key findings and insights provided by the interviewees and program documents. In some cases, the findings and insights relate to more than one principle or to the principles collectively. For these aspects, a section on overarching aspects has been added at the end of this section.

*Part 2 features a discussion of the principles based on the findings of the case study and the discussions with the team.* It also includes the impressions of the case study research team on how the principles were understood by the program team members and how they related the principles to their own work.

*Part 3, the final section, draws a conclusion* by presenting an assessment of the value or usefulness of the principles as an analytical framework for this particular case study. It also includes a number of possible future activities to move the process of developing a systemic M&E framework forward.

## Discussion of the Methodology

Due to time constraints, the phase dedicated to interviews and collection of data and other types of information was rather short but nevertheless very intense. The case study team collected large amounts of information and data from individual and group interviews that proved challenging to analyze, filter, and categorize due to the cross-cutting nature of many of the issues discussed.

There is the possibility of a confirmation bias, as two of the authors of this case study were also authors of the reports that proposed the original and revised versions of the principles. We tried to minimize this bias by adding a third member to the case study team, who helped to critically discuss the findings, and by soliciting feedback from the program and the donor on a draft version of the case study report.

# Part 1: Application of the Principles on the Ground

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## Principle 1: Indirectness of Impact

### *Manifestation of the Principle in the Theory of Change*

This principle clearly manifests in the program's theory of change, as the program is not working with the target populations directly but rather on the parts of the system that can influence them. As Mike Field, MAP's director of portfolio, put it, the program teams are looking for nodes in the system that will "reverberate change." In other words, the program targets points that create knock-on or ripple effects beyond the program's sphere of influence. According to Field, these nodes are hardly ever the marginalized farmers. Instead, the work that the teams do is changing the environment around the farmers and other beneficiaries, with the assumption that the system will influence them to change their behavior. This assumption is then tested in the monitoring framework.

Good examples of how the program works can be found in the water, media, and cotton sectors. Chiranjibi Tiwari, the water access portfolio manager, said that the team is not bringing water directly to the people, which in practice would mean working directly on the water point. Instead, the team intervenes at a higher level, for example, by changing policies and promoting the participation of the private sector in water access.

Hannington Isiaho, the knowledge and results intern assigned to the media team, said that they see the ultimate beneficiaries as the listeners of the local radio stations. However, the interventions do not target the listeners directly, but instead target the radio stations. The team believes that when they motivate the radio station to engage more with its listeners, the listeners will eventually benefit by receiving the information they need. The team's assumption is that radio stations are central to promoting changes in behavior, attitudes, and perceptions of the listeners. Their success, however, depends on how much the listeners trust the institution and whether they think it promotes issues that matter to them. So far, the radio stations have been more oriented toward the sponsors and selling them time to advertise their products and services. This was much more a one-way model of content provision without a focus on building the trust of the listener.

Also, Francis Muema of the cotton sector team supports an indirect intervention approach on the basis of logistics, but also because of power relations and distortion of incentives. Regarding logistics, Muema pointed at an obvious but often downplayed truth: If we are interested in impact at scale, development NGOs do not have the resources to replicate every possible successful solution across the market system on their own, let alone sustain the innovation required to keep the system competitive. Regarding power relations, he said that "even when you go directly to the community, you are actually interacting with an elite [group] who knows what NGOs are and want. Many of these people have become very good at 'managing' NGOs and have strong incentives to distort their reality or [misrepresent] the impacts of a program's interventions." Muema concluded that "the alternative to indirect support is not feasible."

### *Manifestation of the Principle in Monitoring and Results Measurement*

"How acceptable would the idea of indirectness of impact be to funders?" This was the question that Wanjiku Kimamo, the operations director, asked after she was introduced to this principle. The reason for the question was that she was sure that donors "want an absolute number or something that at the end of the day you can show: our beneficiaries were 200,000 farmers or 50 businesses, profitability of so many businesses and incomes of so many farmers." In other words, the donors' focus is still on the ultimate beneficiaries and the numbers created by the program. In contrast, the principle of indirectness of impact indicates that the focus of M&E has to shift from counting direct beneficiaries or assessing direct impacts at the beneficiary level to a broader view of change in the structures and dynamics of the market system.

Richard Waddington, head of the operations team and responsible for M&E, explained that MAP created a “twin-track M&E system” in order to resolve this tension. One track serves the needs of its funders for accountability, impact assessment, and reporting to the taxpayers in the donor countries. Another track serves the needs of the teams and is much more focused on internal learning to enable adaptive management and lay the foundations for achieving sustainability. He is convinced that “metrics around trust and the growth of a business don’t really resonate with taxpayers as much as creating jobs and increasing incomes do.”

MAP had lengthy and interesting discussions with its funders about the appropriateness of the indicators against which the program was going to be held to account, including job creation. “From our perspective,” Waddington said, “while the numbers of new jobs created is an easy-to-understand measure of program impact, this metric is not a reliable indicator of lasting change in the market system and for the program’s target groups in particular.” For Waddington, the real story is not told by these types of indicators; it lies further down the results chains, at the levels of the market system where the teams are trying to make change happen. If the program can achieve change at those deeper levels, the target population will be able to benefit indirectly. “Measuring and understanding what’s going on there is essential from a sustainability perspective,” he concluded.

### *Learning and Adaptation in the Program Teams*

Several challenges are related to the monitoring and evaluation of indirect impacts, but two are particularly relevant at this stage: how to define direct and indirect beneficiaries, and how to attribute indirect change to the program activities.

There are no widely accepted definitions of direct and indirect beneficiaries in the context of systemic interventions. Hence, there are no simple answers to the first challenge other than promoting ongoing debate, learning, and convergence about what these terms mean for different practitioners and policymakers. However, these definitions influence the ways in which the program goes about overcoming the second challenge. This was illustrated by Chiranjibi Tiwari, who used his experience in the water sector to explain, “If we are facilitating the system, we cannot have direct beneficiaries of our interventions. In that sense, it is really difficult to make the ultimate impact tangible. But I also feel that it is possible to link those impacts to our work to some extent. For example, if we bring the private sector on board to provide water, contribute to tangible changes to accountability and liability norms, and improve water-quality standards, why can’t we say that the benefits [to the ultimate beneficiaries] really came from our program?”

Tiwari’s comments are very interesting because they confirm that embracing a systemic approach to market development entails the impossibility of claiming direct impacts. But they also show how this impossibility does not mean paralysis in terms of impact assessment or accountability. His experience tells him that it is obvious that certain changes in the system—that can be directly attributed to his team’s work—directly build the system’s ability to deliver good quality, affordable, and reliable water to marginalized populations beyond the sphere of influence of the program.

According to Richard Waddington, “Indirectness of impact is where the real impact of our program lies. Just counting the direct beneficiaries reached through our pilot interventions isn’t going to get us very far. We might get some good numbers to inform our funders and we might have better stories to tell, but the real interest is in how the overall system is changing—for example, how [are] crowding-in and imitation happening?” However, things are never as easy as they seem; Waddington confirmed that the different teams have reflected on the results chains and how crowding-in and copying may happen. But they are not yet at a point where they see sufficient systemic changes to really know how they are going to capture and document these. He thinks that the teams will only get answers once they see that momentum in the market is system building. Of course, this can only happen if the teams have a basic understanding of how complex systems behave and of the appropriate indicators and techniques to detect

change when it takes place. According to Waddington, staff members are being trained to constantly think about what is happening in the wider system, beyond their immediate interventions and effects, and how they can get the information they capture back into their strategies and to all sector teams.

This discussion also shows that it is, in fact, very difficult to come up with a detailed set of results chains containing wider systemic change from the very beginning of the program. Mike Field said that this would entail “knowing how you would expect the change to happen.” Instead of investing too much effort in knowing or predicting the processes of change in detail, Field recommended that teams pin down some basic components of the results chains. This means starting off with a relatively simple M&E framework and adding more layers when they are needed. On the one hand, this allows a co-evolution of the intricacies of the monitoring system with the capabilities and level of understanding of team members. On the other hand, it also helps to put the focus on the most relevant aspects of change at any moment of the program. As this aspect of an evolving monitoring system is relevant to all principles, we are further discussing it in the section of overarching aspects at the end of Part 1.

## **Principle 2: Depth of Impact**

### *Manifestation of the Principle in the Theory of Change*

To achieve systemic change, the program puts special emphasis on the “normalization” of desirable new behaviors of the market actors. Normalization is not just a result of an individual’s acceptance of new ways of thinking or acting and making such behavior routine. It goes much further, to entails a collective acceptance of the new behavior and the buildup of peer pressure to conform to it.

Linking back to the indirectness of impact principle, the program is paying special attention to changes at deeper level. Instead of focusing efforts on the most superficial changes, such as increases in income and number of jobs, it emphasizes the set of behaviors needed to make market systems more inclusive, productive, and efficient in the long run. The program asks why these behaviors do not now exist, why some individuals who try to adopt such behaviors are stigmatized, and what the program can do to improve the situation.

Mike Field offered the program’s goal of increased adoption of growth-oriented strategies in businesses as an example. These strategies are defined by better relationships between businesses and their clients, and the businesses’ awareness that to grow they need more loyal clients and suppliers. According to Field, if there is no business incentive to move past trading relationships into alliance-based relationships, then there is no way to get inclusivity.

Wanjiku Kimamo agreed with the principle and is convinced that the program needs to put its focus beyond income: “I think that depth of impact is a good way of evaluating our programs because if we stop at income alone, there could be factors beyond our control that drive income either positively or negatively, and thereby we would be presenting superficial results. It’s not just about incomes. There is a reason why we are trying to understand if farmers started procuring inputs; if they are able to make the right decisions about those inputs; if they are adapting to new technologies they are exposed to; if they are learning new things from those technologies. So, it could be buying instead of recycling seeds or pruning or harvesting at a certain time or in a certain way. Those things will gradually lead to increased incomes.”

### *Manifestation of the Principle in Monitoring and Results Measurement*

Information about what goes on at deeper levels of the market system can be used to determine whether the system is changing its trajectory toward a horizon of more inclusion, productivity, and efficiency, and whether it will keep this new course beyond the life of the program. The importance of depth of impact manifests manifold in how MAP is monitoring and measuring results. The teams are looking for a whole range of signals that indicate that change is occurring at deeper, more structural levels of the system. These signals or indicators at different levels of depth are

both guiding the staff regarding what to look for when they are in the field and gradually being integrated in the monitoring and results measurement framework. The following are examples of the deeper structural levels that the teams are paying attention to (see Annex 1 for a more detailed description of these fields of observation):

- Behavior change
- Trust
- Loyalty
- Consumer awareness
- Business management patterns
- Participation in policy change and advocacy
- Relationships between the actors
- Perceptions and preconceptions of actors
- Knowledge flows

One example of behavior change in the cotton sector can be seen at the level of the ginners. The program is aiming to change their behavior from simply maximizing the margin in every individual transaction to a bigger focus on value addition and long-term investments. Mike Field explained, "Cotton does not have what I call proper processors; they have traders that process a little. So you can tell quite a lot from the ways in which they use and invest in machinery, the business decisions they make, how they treat their suppliers and buyers. Normally, they invest a lot of their effort towards lowering purchasing price and increasing selling prices and not in value addition."

Loyalty and the repeated interactions between input retailers and farmers, or between farmers and buyers of their produce, is an important determinant of deeper change for the program. For example, the monitoring system looks at the number of times a farmer comes back to buy inputs from a particular retailer. Richard Waddington pointed out that the number of jobs can be very volatile and went on to say that "if you've come much further down in the system and you've seen smallholder farmers engaging with an agrovet, going back for repeated sales, and purchasing what they need for their farm, then those are indicators that they've got the income to make that investment and that they want to make it."

For Chiranjibi Tiwari, it is clear that "we must look at the relationships among the actors as an important element of our systemic change, in addition to the income change and ultimate benefits. End results are important, but we need to see if there is a self-sustaining mechanism developed and working towards the goals. That must be monitored if we really want to say that this system is working and we are creating a sustainable system."

In the media sector, perception and attitudes are also central, as Clement Tulezi, the sector team leader, explained: "A lot of what we try to measure [are] perceptions and change of attitude. Especially when you send a message over the radio that is what you are more interested in in the first place. If the perceptions and attitudes are not right, then the likelihood that something else is going to change is very low. We are interested in more SMS, calls, and attendance to live events, but we are [also] interested in what is beneath all that. That is more important to us than the numbers alone."

These examples show the awareness that the MAP teams have about the principle of depth of impact and its applications in different parts of the program. It is interesting to see how, despite the differences in the ways each interviewee described the indicators used, there is in all of them a committed drive to have impacts beyond the top-level numbers related to jobs and income.

## *Learning and Adaptation in the Program Teams*

The principle of depth of impact has been very much accepted by the teams as what the program seeks to achieve. However, there is still pressure from the donor side to report impacts in the form of changes in numbers on the surface, such as increased income or numbers of jobs. Again, as in the case of indirectness of impact, the challenging question the program needs to be able to answer is whether these changes on the surface can be attributed to program activities that produced deeper changes. On the one hand, the donors need rigorous attribution to prove the impacts being reported; on the other hand, the complex nature of the systems that MAP is working in makes a rigorous approach to measurement extremely challenging. According to Richard Waddington, the need to prove impact and attribution tends to narrow the space for dialogue with funders as to what are appropriate ways to measure the depth of impact. He added, "From our perspective, the idea of plausible attribution is more comfortable—creating good narratives that can show that plausibly we are contributing to those changes." Plausible attribution is not a rigorous way of proving attribution but rather provides a reasonable narrative about how change can be attributed to a program intervention. Waddington also said that "there are a number of emerging measurement standards, such as the DCED Standard for Results Measurement, which are making an important contribution to this conversation with funders. Nonetheless, we feel it would be important to ensure that the development of such measurement methodologies is based on a more iterative conversation with programs in the field." For Waddington, the DCED standard includes a strong focus on the use of universal impact indicators, which is reinforcing perceptions that jobs and income are appropriate impact measures for all market facilitation programs. He feels that "further opening up the space for establishing a more bespoke set of metrics based on the experience of individual programs is needed."

## **Principle 3: Network-driven Change**

### *Manifestation of the Principle in the Theory of Change*

The principle of network-driven change is very important for the program's overall theory of change. It links back to the discussion under the principle of indirectness of impact, where Mike Field explained that the program is searching for the nodes in the system that will reverberate change. Change is then promoted throughout the system from these nodes. As Field remarked, these nodes are hardly ever the ultimate beneficiaries.

For MAP, these nodes are specific companies in the selected market sectors. The program works with a number of these companies with the intent to make them drivers of structural change for the whole system. Examples of companies that MAP works with are ginners in the cotton sector and input supply companies in the input sector. The nodes can also be public sector actors, such as in the water sector where MAP works with water management boards. These nodes are, however, not black boxes that powerful managers or CEOs can manipulate at will. They are, in themselves, complex networks with many different actors and organizational shapes and flavors.

A closer look at such organizations shows a network of employees at different hierarchical levels, whose interactions define the behavior of the whole. In general, the changes are initiated and driven by people with a certain amount of influence in the organization or company. These collaborators are the market actors with whom the facilitators of the program directly interact—for example, to come up with strategies and activities, allocate funds for pilot investments, and sign MOUs or other formal agreements. The collaborators can then directly influence the "precursor networks" of their companies or organizations. (They are called precursor networks due to their pioneering nature in exploring new ways of doing things to transform the structures of the market system.) For example, in an input supply company, the collaborator of MAP is the owner of the company, and the precursor network is composed of staff that make the company work and the franchisees that are contracted for community-level marketing and sales of inputs.

Mike Field's explanation of nodes above resonates with the description of the principle of network-driven change that says *deep and pervasive change* in the market system can only be driven by the system itself (and not by the program). The principle proposes three areas a program needs to focus on—both from a strategy and from an M&E perspective:

1. The effects of the program on its immediate sphere of influence: the collaborators and their precursor networks.
2. The effects that the precursor networks have on their immediate surroundings.
3. The structure and dynamics of the wider system that enable or disable dissemination of change throughout the wider system.

The first two areas are well reflected in MAP, as illustrated by the input sector team's work with Farmshop, an agricultural input provider that uses a franchise model. The owner of Farmshop is the collaborator of MAP. He mobilizes his own network, which are the franchisees. MAP has a direct influence on the owner of Farmshop and to some extent on his strategies, activities, and plans (though he may not totally agree with what MAP proposes). The franchisees then follow the guidelines of Farmshop (the franchiser) and adapt their strategies and behaviors to interact, transact, and share knowledge with the farmers. If the Farmshop model succeeds, and this evidence is known by incumbent or potential competitors, it is very likely that other input companies will want to explore ways to copy or adapt its methods while creating incentives for Farmshop to continue improving and innovating as a result of higher competitive pressures. The resulting virtuous circle of copying, adaptation, and innovation drives desirable changes in the wider agricultural input sector.

The third area in the list above can be illustrated by the awareness of the MAP teams that certain actors can enable or hamper the success of the precursor networks and the dissemination of new ideas and practices. Chiranjibi Tiwari provides an example in the water sector, where we can see the importance of these actors for the collaborators and their precursor networks (which, in this case, is the water development board): "Not necessarily people who are directly linked to the [water development] board, but the society at large—like the intellectuals in the business or NGO sectors—are the ones who create the norms they want to see. So if a network is completely against the issue we are promoting, we cannot make a difference. At the end of the day, the wider players around our key actors need to also buy into the idea."

The point made by Tiwari illustrates that new ideas such as a privately led water provision model ought to be understood and accepted by stakeholders who can enable or hamper processes of structural change. Consequently, the M&E framework also needs to be able to detect changes in the levels of understanding, participation, and engagement of these actors toward co-creation and buy-in.

Another example that shows the usefulness of a network-centered approach to inclusive market development was presented by Mike Field. He explained that society and hence also many businesses in Kenya are largely driven by patronage networks, which are contained within the boundaries of the different ethnicities. This has driven such networks to overvalue loyalty and undervalue evidence. "One of the systemic changes we would like to see," Field explained, "is the increase in evidence and the decrease in the value of loyalty that would allow networks to be driven by joint interests around performance. This would, in turn, allow businesses to work [better] and [lead to] more inclusivity." But, to do that, he concluded, the program needs to gain a better understanding of these networks and to build the skills of field staff in order to influence how current and potential collaborators manage and restructure their networks.

### *Manifestation of the Principle in Monitoring and Results Measurement*

The measurement of network structures and dynamics has not been systematized in MAP's M&E framework. It largely depends on the personal understanding of the technical teams. For example, the media team has developed an

understanding of the structure of the media landscape that it can use to plan interventions. This understanding has not been codified or formalized, and it is linked to the people in the media team.

In contrast, how change is driven by networks has been incorporated in the results chains of the program. The chains portray how change is proliferating from the direct collaborators through their networks to the ultimate beneficiaries (see an example of a MAP results chain in Annex 2).

One of the challenges that the program is struggling with is monitoring the effects of its interventions on the wider system. These effects are outside the immediate results chains, outside the logic that starts with a specific collaborator and ends at the level of what are often seen as direct beneficiaries. The theory of change the program uses is that other market actors crowd in around the changes stipulated by the program's activities—for example, by copying new business strategies. Richard Waddington explained, "I would say we haven't yet made a proper concerted effort to understand copying effects, but we're anticipating that we're going to need to know how to do that. One way is to design intervention through different information flows, so the fact that we're interested in rural media, that we're looking at festivals and farmer field days, and [we're] creating farmer loyalty programs, all represent entry points into understanding copying effects. Our monitoring system is then set up to do in-depth research to understand what's going on within that process."

### *Learning and Adaptation in the Program Teams*

As the collaborator is the centerpiece of the program's strategy of network-driven change, the selection of the right collaborator is crucial. MAP adopts a strategy that is strongly based on the idea of self-selection. Collaborators need to be ready to engage with the program on their own accounts, and they need to show this by their willingness to invest in the proposals elaborated by the program. The selection is based on the collaborators' openness to adopt and test new ideas and not on their current power in the market system. If there is no buy-in from the market actor, the program makes a point in walking away from this specific actor.

In order to mobilize the precursor networks around the collaborators to drive change, the program needs to learn about and understand the internal dynamics and structures of these networks. This is often a challenge, as illustrated by the program's work in the media sector. According to Clement Tulezi, "The media has so many layers. Say, if you take one media house, it has the owner who controls a lot of policy. Then the management [and] other people below them—these are [the] guys who need to convince the owner why the station needs to move in a certain direction. But they don't do the job. The guys who do the job are the producers, the presenters, etc."

Internal dynamics can often also be influenced by political or other hidden agendas, or by deeply rooted societal norms, as illustrated by Mike Field's discussion about the value of loyalty vs. evidence when dealing with patronage networks. The understanding of the dynamics and structure of such networks enables the program to develop meaningful interventions. It is also essential to monitor the changes in the network and in the wider system, which in turn can give useful information about the potential of innovation to scale up or spread out.

As Wanjiku Kimamo points out, the timeline of the intervention has to provide enough time to understand the inner workings of the precursor networks and get more done through them. It is not enough to know that a "node" (using Mike Field's term) is important and has been mapped out; these "black boxes" must be opened up. Furthermore, flexibility and the possibility of continuous innovation are also central to the success of the program. As the facilitators in the field start to interact with these networks and get to know them better, they will always find dynamics, actors, and structures previously unknown to them that require the implementation of new strategies, activities, and incentives in relatively short time periods.

## Principle 4: Unpredictability

### *Manifestation of the Principle in the Theory of Change*

MAP staff members are very aware that the only thing certain in the context of the market systems they are trying to improve is uncertainty. This has important implications for the ways in which they plan, learn, and execute. Mike Field explained that the teams do strategic analyses of the different sectors, but he is less enthusiastic about spending lots of time writing detailed strategies because it undermines the ability of the teams to adapt and learn. The program teams explicitly avoid rigid work plans. Instead, they work more around sets of activities, which produce specific results that staff members reflect upon and try to learn from. The team is making targeted efforts to move into a more experimental mode of work.

Francis Muema talked about the way in which team members dealt with the unexpected lack of response from the Cotton Development Association (CODA) at a certain point in the program: “We knew that CODA needed to be more responsive to the market, but it was not happening; we never expected this. We quickly had to sit down and come up with a solution. That really changed the way we handled the problem. It changed our perception of the implementation and started to move us away from rigid work plans and into being more informed of what’s happening in the market system at a given time and how that is going to impact our work. If any change does not happen on paper, we try to learn from that. We stopped giving too much emphasis to the initial program document.”

MAP teams are also learning to be more flexible regarding expertise that they consider will help them to overcome unexpected problems. For example, the cotton team hired a political economist to give it a fresh perspective on tensions between market actors that were perceived by the team as key blockages for the success of the industry. This consultant was also used to build the capacity of CODA to manage these tensions more productively.

Unpredictability is expressed in many different ways—in the entry of new actors who bring new interests and perspectives to the process; in the negative side effects of apparently good, inclusive, or progressive policies; in the lack of uptake of a seemingly good idea or technology; in hidden preconceptions or fears that erupt suddenly due to unexpected reasons; etc.

Susan Maina, head of the input sector team, recalled how some of the employees of an agro-dealer resisted the adoption of a new ICT platform that was going to benefit their relationship with clients because it was not only going to generate more information about the behaviors and needs of the farmers but also about their own behaviors. The ICT platform was, indeed, going to create an inconveniently high level of transparency in the management of inventory.

To face unpredictability, Wanjiku Kimamo recommended to plan up to the point where teams have considered the most likely pathways that the market system will follow and feel well prepared to make a move: “No amount of planning is going to address unpredictability because you don’t know which way the system will go.” This message is consistent among different members of the team. Irene Angwenyi of the media team, for example, recognized that no amount of planning will give teams a “clear picture” of what will happen, but at least a “clearer picture” of what they want to achieve and where they want to go before realizing too late that they ignored obvious bits of information that could have saved lots of problems. In other words, do your homework but be ready to go back to the drawing board more than once.

### *Manifestation of the Principle in Monitoring and Results Measurement*

One of the cornerstones of the monitoring framework in terms of capturing unpredictability and reacting appropriately is the creation of spaces for the team to come together, exchange lessons, and reflect about progress and challenges.

Richard Waddington pointed out that it is important to get people out of their daily routines and open their gaze to the wider picture—for example, to see what market actors are doing or how they are reacting to the interventions. He described the opportunities that the program has put in place to do that: “One is with a formal process we put in place: [The] last Thursday and Friday of the month, portfolio teams are supposed to pause for breath, come back to the office, and have a chance to plan ahead. And secondly, [they] report into our monitoring system about what they’re seeing, observing, some of the numbers, and trending data.” Waddington continued, “The monthly process is supposed to be a period of two days, [...] being back in the office so they have a chance to talk to their colleagues and say ‘I’ve been doing this, what have you been doing?’ And just physically be here. And within that timeframe, they just fill up the formal requirements we have in terms of reporting and planning.” These monthly meetings are important both for the monitoring and results measurement and for learning and adaptation. This is a clear example of monitoring and learning flowing together and becoming the same activity.

Also, beyond the monthly meetings, it is important to allow the teams to work together to make sense of emergent patterns. The program management is thereby delegating a lot of responsibility on sharing knowledge and information within the teams to the sector team leaders. They know that a systemic approach to markets has to go beyond the production and evidence of impact on specific parts of the system. An evidence-centric culture is important, but the research methods to produce evidence and the ways in which it is used to make decisions in the program must be contextual. Peter Mbiyu of the KRT explained this idea by using the program’s peer review process: “[We make] sense of the numbers through peer reviews where people come together and review what has happened in each sector in the past quarter, what has worked well or less well, and what course-correcting activities might need to be taken to make sure we stay on track.” Information means different things to different people; this is why peer-review processes that promote discussion of staff members’ views around emergent patterns and related strategies are key to effective learning and fast adaptation to uncertainty.

This approach is closely associated with an idea that we call “collective pattern detection,” where the teams reflect together to make sense of the wider trends and patterns seen in the market system. Indicators have a place and a function in M&E, but their place and function must be carefully discussed in the context of systemic M&E. Otherwise, teams risk getting into a situation where too much focus on “operational things” and numbers can lead to confusion and hinder the detection of important patterns of change.

Consequently, the monitoring system does not focus on all the details but tries to reflect the general picture of change. Mike Field said, “We don’t really measure operational things. We don’t track trainings. We always just track the behavior change and the sales and investment patterns and things like that.” This includes simplifying reporting mechanisms to minimize distractions to the field teams.

### *Learning and Adaptation in the Program Teams*

MAP adopted various strategies to learn how to handle unpredictability and adapt program interventions to unpredictable events. One strategy involves the implementation of quick feedback loops to assess implementation and adjust the course of the interventions.

Richard Waddington explained that the operations team tried to set up their monthly monitoring system to be “that feedback loop that enables [the sector teams] to steer their course and face unpredictability. Therefore, being able to spot where unexpected trends emerge is important. This is not just a story of numbers; it’s about tacit knowledge, field observation, and filtering that into how we learn and observe what’s going on.” This is a significant departure from a monitoring approach that focuses on reporting on fixed indicators, moving instead toward an approach that focuses on learning.

Waddington's remarks also put the spotlight on the skills, attitudes, and location of the staff in the field. The team has learned that the ability of field staff and contractors to capture information through informal conversations based on good rapport and trust with the market actors is fundamental to its capacity to deal with uncertainty.

Working together to make sense of emergent patterns requires trust and a culture that values mistakes and problems as opportunities for success and learning. Waddington shared an interesting case in which the dairy team provided a catalytic subsidy to kick-start a commercial operation and things did not go as expected: "We basically were buying down the transportation costs for the hay we were producing through this joint intervention to bring it to farmers. The idea was to enable the cooperatives in that area to sell the hay at a cheaper price, get a higher margin, and reinvest the profits in transport. What the team told us after looking at the figures was that that subsidy had not worked and, in fact, the cooperatives ended up making a loss. And yet, the cooperatives were still merrily trying to make this work because they could see the demand for the commercially available hay. What hadn't come through in our analysis was why our subsidy had not had its intended effect. This crucial detail was missing from our formal reports and absent from the discussions we were having with our dairy team." To Waddington, it was clear that they need "that kind of info to flow and get the issues to be talked about." Other interviewees confirmed the importance of asking the right questions and creating a culture of dialogue without judgment.

Unpredictability requires adaptability and therefore changes at different levels of the organization. These changes are interdependent and interconnected. In other words, different parts of the organization co-evolve, or change, together. However, Waddington suggests that there is a certain hierarchy at play here: Field operations must determine the changes to the M&E framework instead of the other way around, that is, the interventions must be shaped to fit the M&E framework. Interestingly, this understanding of how the M&E framework must co-evolve with what is going on in the field also involves the actors with whom MAP collaborates. For example, team members are helping Margos, an agro-dealer, to build up his management information and M&E systems to help them to perform better and also to make sure that the information they produce for the business can be used by MAP to adapt faster and be more effective.

As a next step to make the organization more flexible and quicker to react to unpredictable changes in the market system, Mike Field imagines further decentralizing decision and budget structures: "We are going into the next stage now, where even teams will control their own budgets; they control their own consulting." Of course, he added, there have to be guidelines and controls in place for financial management, and quarterly check-ups must go through the results chains in detail to get a sense of where the program is, what is working, and what needs to change.

## **Principle 5: Sensitivity to External Signals**

### *Manifestation of the Principle in the Theory of Change*

The basic premise of this principle is that programs have an effect on the system even without starting with purposeful interventions. When actors in the system learn that there is a development program, this can quickly influence their behaviors. Similarly, analysis activities by the program, such as surveys, interviews, and market mapping, influence the people that are participating.

For MAP, this principle has shown itself to be a very important determinant of its facilitation activities. People whom the program teams approach in the field show vastly different behaviors, depending on how they perceive the staff. This is best illustrated with an example from the cotton sector, where MAP works together with gineries as collaborators. It is recounted by Francis Muema: "Whenever they are going out, all of them, including our staff, would go out as ginery staff. So he would never introduce himself to the farmers or to the beneficiaries, including agrovets, as NGO staff. As a result, whatever response [he] got was purely for commercial reasons. [...] And he could testify that

in the few times he went out alone as [MAP] staff, after a meeting, people would ask for lunch. People would ask for sitting allowances. But whenever [he went] out as ginnery staff, nobody asked for anything.”

Consequently, in practically all cases, the program hides its presence as much as possible from the wider sector actors. The program works with the collaborators, and any initiatives are running under the sole identity of the collaborators, even if they are partly subsidized by the MAP.

An exception is in the water sector, where MAP works largely with public institutions such as water development boards. There, the program uses its clout of being a national institution with the backing of large donors like DFID to convince the collaborators of the validity of the program’s ideas. Also for the facilitation of collaborations between the water development boards and the private sector in public-private partnerships, the program uses its identity to convince the private sector to engage with the board, as, in general, the boards are not perceived as transparent and open to the private sector. According to Chiranjibi Tiwari: “Boards are quite high level—the chairman has a similar hierarchy as that of a minister. They are quite high-level people. So, when you are discussing with them and you appear to them or introduce yourself as a small program who is there just to support them, they will not listen.”

One of the hypotheses at the beginning of this case study was that it was always important to minimize the profile of the facilitator (with regard to donor backing, availability of funds for subsidies, etc.) However, MAP seems to be successfully using its identity strategically and in different ways, sometimes minimizing or even hiding it and sometimes enhancing it, depending on the context and the nature of the actors with whom the program is interacting at any given point.

### *Manifestation of the Principle in Monitoring and Results Measurement*

The basis of monitoring around the sensitivity to external signals in MAP goes into determining the honesty of the collaborator to genuinely work with a facilitation approach and the way the collaborator sees the identity of the program. When the collaborators are not happy with or cannot be convinced of the value of the facilitation approach of the program, the team is free to walk away from them, either temporarily or permanently. A big part of the responsibility of assessing the effects of MAP on the collaborators as well as the wider market system is given to the team leaders of the sector programs. It is their responsibility to reflect with team members on what they have observed when working with the collaborators. The program is, however, giving the teams space for these discussions and reflections, and it also tries to capture them in the formal M&E framework.

The M&E framework includes some indicators aimed at determining whether a collaborator is seriously buying into the ideas of the program. Richard Waddington, in referring to the types of investments made by the collaborators, said that these investments “cover a number of things from claimed investments to actual investments, creating new ICT systems, staff training, development, matching some of the subsidies in the program—basically trying to disaggregate what types of investment they might make up and then measuring how those are actually happening. That’s basically what we’re doing to just try to understand if they are genuine about wanting to work with us—are they actually properly self-selecting?” In general, however, the “gut feelings” of the sector teams still drive the process more than actual data captured in monitoring process.

### *Learning and Adaptation in the Program Teams*

Through their experiences, the MAP teams are learning that the market actors they interact with (the collaborators) are very aware of their identity and modify their behavior to maximize different types of gains (e.g. financial, reputational and political). In consequence, the MAP teams are learning how to adapt their own behavior and interventions to maximize ownership and minimize problems related to donor dependency and market distortions.

On the one hand, the MAP teams are looking for strong signs that the collaborators are buying into the ideas of the program; are ready to change or mobilize their own networks (the precursor networks) to lead structural improvements within the system; and are willing to co-invest in solutions that they see as beneficial for themselves and the wider system. On the other hand, the teams are trying to learn how to identify signals from the collaborators which tell them that these are interested mainly in playing a passive role, limited to receiving funds and instructions from the program. However, as pointed out by Mike Field, it not easy to determine the leadership potential or even the honesty of collaborators: “[It] is a challenge in general, because Kenya is a very sophisticated place. There are lots of donors. A lot of the businesses are sophisticated [in] managing the political needs of donors. Sometimes, it is not always clear for staff or us to know exactly when somebody is saying stuff because they think they are going to get it for free.”

In many cases, however, the collaborators can be convinced to buy into the facilitation approach, especially when they see the potential sustainability of the impact of the program on their own work. Irene Angwenyi from the media team explains that it is important to make clear to the radio stations that the skills, attitudes, and strategies they build through a facilitation approach can be used after the donor has pulled out. She makes a point of saying that it is important to make this sustainability clear, especially when the radio stations have had negative experiences where donors provided subsidies for ideas or initiatives that proved unsustainable.

## **Principle 6: Information Deficit**

### *Manifestation of the Principle in the Theory of Change*

This principle states that no matter how much we know about a complex system, there will always be something that we do not know, and that can have important effects on the future behavior of the system.

The MAP teams recognize the issue of information deficit and have built some structures to guarantee continuous analysis of the system in order to narrow the information gap. Mike Field thereby made an important distinction between “cold analysis” and what he calls “poking the system”—in other words, interacting with it. He pointed out that there is a need for more of the latter and less of the first. In this sense, everything a program does—whether just collecting data or actively intervening—can be seen as analysis. Consequently, the whole program is set up to be in constant learning mode in order to overcome the information deficit.

This sort of immersive and interactive learning (or “poking the system,” as Field put it) goes beyond a mere process of consultation for program design before getting funding from donors. It is about the recognition that there will always be much more about the system that the team ignores than what they can ever possibly know, and that the analysis, planning, and M&E processes are much more effective, fluid, and faster if done with the market actors from very early stages.

Following Field’s assumption, to strengthen the analysis through interaction, a program needs to be doing pilots earlier. Spending too much time analyzing a system without interacting with the reality in the field is highly problematic. According to Field, “You need to find a way to balance theory with observation; and you always need to have these dynamic tensions between them. We have [gone] too far with theory, and we do not have a lot of observational experience.” He says that MAP tries to balance that tension by doing some up-front analyses but then spends more time trying to create analyses around the observations by understanding different factors and then testing different things. As the MAP teams detect patterns of new behavior, they can move to scale-up activities. “It is a constant process of affecting momentum of change and how that momentum works. It is also about ‘poking’ in different areas to see what works. Over time, I get more certainty about how this system works with these ‘levers,’ and then I can be more targeted. So right now, we are in the narrowing down of the interventions that we know have resonance in the system,” explained Field.

Chiranjibi Tiwari confirmed Field's points but also underlined the importance of "cold analysis" at the beginning of the program: "We need to have robust analyses to help us to start the program, and we really need to make that learning curve very dynamic. As we move ahead, we might learn some lessons, but we need to keep our strategy rolling."

The following is an example used by Field to explain why wrong conclusions were reached in the analysis of artificial insemination (AI) services: "I think most of the analysis we did was not very helpful in what the underlying drivers of behavior are saying in terms of a static, relatively 'cold,' outmost basic economic analysis. As an outsider coming in, AI should work, but AI is not working. There has got to be something around it that is too expensive. However, artificial insemination is a really complex market system that has a lot of bad behavior that is driven around patronage networks. [There are] many incentives to not be honest. The front-end retail system or retail business model is not in place, so there is not really a business to keep a customer. There is a stronger business case for getting the sale. So, there are all kinds of issues around that are much more complicated than lowering the price of artificial insemination. If you do a little bit more analysis, the affordability is not the problem; the value proposition is the problem."

MAP teams are learning the relative value of leaving their desks and going out to interact and pilot initiatives with the market actors themselves. It seems that most believe that it is important to do some planning and analysis beforehand—in particular, to develop a clearer vision of where the system should or can go—but some think that it is more important to "take the plunge," and to take it earlier than traditionally accepted. This can be connected back to the theory of complex systems that proposes that appropriate solutions in complex systems cannot be determined through theoretical analysis but through interaction, "safe-to-fail" piloting (i.e., experiments that have small probability of producing catastrophic results), and iterative learning and adaptation.

The challenge now is to assess how much cold analysis is enough or appropriate. Richard Waddington agrees with poking the system but thinks that striking a good balance is crucial: "We have essentially lurched too far towards engagement with the system without at least some underpinning 'cold analysis' to provide entry points for learning and understanding. We need some level of cold analysis to test theories and assumptions and better facilitate learning. At the moment, I think we are suffering a bit from asking staff to engage with the system without giving them sufficient context as to why we are asking them to do that and how it relates to the overall thinking that underpins the program. A bit more of an up-to-date framework to do that is needed in my opinion. I have a strong feeling that we are collectively finding it a bit difficult to see the wood through the trees, as it were."

### *Manifestation of the Principle in Monitoring and Results Measurement*

According to Susan Maina, the MAP team is attaching a high value to information about changes in behavior in market actors that is not coming from the formal M&E framework but from field observations. However, once the team members agree that a given type of new behavior change is important, they add it to the formal monitoring framework to keep an eye on it on an ongoing and regular basis.

Francis Muema confirmed the necessity of unstructured data collection: "Much of the information is actually [collected] through direct engagement. [...] The more we interact in an unstructured manner with the actors, the more insights we get. And [they are] useful insights which define why people behave the way people behave. The moment you go to them with structured interviews and they see you with your pen and paper, they will tell you something totally different than when you are engaging from a relaxed, informal environment. We have seen that most of the time it is during that informal engagement when you get the real stuff."

This reinforces the comments of Mike Field and Richard Waddington about the importance that the MAP gives to real practice and field observations driving the evolution of the M&E framework. It includes an awareness of the importance of reporting templates and procedures, and therefore of making sure that they are periodically improving and evolving according to the needs of the teams. "We are never static with anything that we are doing," said Judy Odongo. "We are always discussing if and how an activity or process needs to be revised. So, the quarterly report

template that we will use in this quarter has improved compared to the one we used in the previous quarter because of the things we have learned and the gaps we have seen.”

### *Learning and Adaptation in the Program Teams*

One of the cornerstones of MAP is learning and adapting through the personal interactions of the management staff with the team and review meetings, as described by Mike Field: “The regular meetings with my staff about changes and when they come to ask me about challenges is always the best. The second best routine is probably the review meetings, where we have some structure or some direction of where we want to go. We have a framework for how we want to learn, and we bring a lot of people in to discuss the situation. We can also pull in different people because everybody is around.”

Learning is seen as a continuous process, as exemplified in the water sector. According to Chiranjibi Tiwari, “When we started the water sector intervention, we thought it was easier to demonstrate quick results in the rural water sector, especially the water micro-entrepreneurs. The idea was: we look for water micro-entrepreneurs; we bring them on board and, through them, we produce results; then we move onto the larger water sector. But as we started the process, we learned that starting with the micro-entrepreneurs was going to be more difficult than working with the slightly bigger ones or even the biggest one. If we can show the change really happening at the bigger level, it is much easier for us to replicate. So in a way, even in our strategic thrust, initially we were thinking about the small and micro-entrepreneurs, but as we engaged in the process, we learned from it, and then we started working with the bigger players. Right now, we are really talking about small, medium, and big water systems rather than micro water systems.”

Information deficit also affects market actors, who often lack information about their own businesses, their surroundings and the broader system. According to Wanjiku Kimamo, market actors—in particular, the smallest or more marginalized—are not very good at capturing and analyzing information or keeping records. Entrepreneurs and farmers using best guesses or memory to produce information, lack of appropriate incentives in the public sector to invest in information management and sharing, and the fact that people perceive and describe reality in different ways “leave us in a place where we have to work with what we have.” This situation compounds the M&E challenges related to this principle because it limits the capacity of the facilitators to obtain accurate or reliable information from the market actors.

## **Principle 7: Sustainability as Adaptability**

### *Manifestation of the Principle in the Theory of Change*

Adaptability is the program’s primary aim. This is manifested in the focus of the interventions on management skills rather than on the promotion of specific business ideas, or even on specific sectors. For the program team, skills are more important than the selected sectors. In the cotton sector, for example, the focus of the interventions has shifted toward improving supply chain management of collaborating companies, with the goal of making these skills independent of the sector that the firm works in. This shift in focus is largely based on the realization that beneficiaries shift between multiple sectors. Farmers not only grow cotton but grow whatever seems to be a promising source of income, along with considerations of providing enough nutrition for their families. Mike Field made a point of saying, “We don’t say cotton is the goal—cotton is the vehicle.”

### *Manifestation of the Principle in Monitoring and Results Measurement*

The program uses a benchmarking tool (see Annex 3) that indicates the progression of the innovations from early adopters to early majority, late adopters, and eventually to solution-seeking behaviors. This tool is, however, only in development and has not been employed productively in the monitoring framework of the program. Mike Field

specified that “we have not identified [indicators] like that, but in my mind I am thinking about these things in terms of growth orientation, the staff thing, the university stuff, the research ... all of that as proxies as whether the system is building in the ability to adapt.”

### *Learning and Adaptation in the Program Team*

MAP teams are learning through observation where the program’s interventions actually lead to adaptability, as illustrated in this story told by Francis Muema: “People are brilliant; they know how to innovate and it quickly spirals into something you did not envision. In class, we call it emergent strategies. It happens at all levels... even at farmer level. We have seen farmers adopting the ideas that we bring on board to other commodities or crops or areas. An example is conservation agriculture. We took it to them on cotton. They used it on other crops, and they are happy with it and now they want to make it their technology. [Conservation agriculture has become] their way of farming, whether it is cotton or sorghum or whatever.” So the main benefit of the program’s intervention, even though it was done in the cotton sector, may not come to the farmer from growing cotton.”

A more formalized way to learn for the team is the use of the benchmarking tool mentioned above. As stated, this tool has not been employed productively in the M&E framework of the program.

## Overarching Aspects

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In this section, we present some aspects that could not be allocated to an individual principle but, rather, touch on multiple principles. In this sense, the aspects are not outside the realm of the principles but very much relevant for systemic M&E.

### An Evolutionary M&E Framework

An aspect that touches on more than one principle is the evolutionary nature of the M&E framework designed and managed by MAP. There are, in fact, two processes of co-evolution taking place in parallel that reinforce each other: one where the M&E framework evolves as the teams gain a better understanding of both their own work and their vision of the market system, and the other where the M&E framework evolves to keep up with changes in the market system itself.

For this co-evolution to happen successfully, at least two things seem to be required: organizational awareness about the importance of learning from field observations, and organizational flexibility to change formal M&E frameworks whenever necessary. This enables a virtuous cycle where current knowledge and assumptions are crystallized in the shape of an M&E framework. The framework, in turn, enables the teams to see reality in certain ways, to pay attention to certain aspects, and to learn certain lessons. However, the teams are also trained and encouraged to be alert for unexpected findings or aspects outside of the current M&E framework. These findings and insights are then discussed and debated within the teams. These discussions help the teams to agree on how the M&E framework must change. As a consequence, indicators, targets, and methods are added or adjusted. The new or improved framework enhances the ability of the teams to see new realities and to learn new things ... and so the cycle continues.

This is an interesting insight because it suggests that, at least during the initial phases of the program cycle, it is beneficial to keep the monitoring system simple and to focus on learning and understanding the processes of change in a team. According to Mike Field, the priority for a manager is to help the team feel comfortable with the complexity of the system and its implications, and to build the knowledge, skills, and attitudes necessary to interact with such a system successfully. As team members become more comfortable and capable and their understanding of the system grows, they can gradually increase the level of detail to monitor and evaluate other aspects of the market system.

There is, however, the need to have from the start some sort of theory of change—in the form of results chains, for example—in order to define the direction of change that the program is intending. As Mike Field pointed out, “You would have to have some bones of a results chain in there at the start, regardless. It just depends on how complex you make it. And then how much you think you are going to monitor from the beginning as opposed to monitoring key steps in the beginning and getting good data on that. And then [you move] on to the next set of things that you want to monitor more intensively.”

This is a key lesson from MAP, but it is not something that was implemented from the start or that has been codified into formal procedures, methods, or tools up to this date. In fact, the program did very much the contrary and has had to simplify some of the original, detailed, and complicated framework because it was too demanding. To start with a simple M&E framework and build on it as they implement and learn is something the teams would do if they could start all over again. Nevertheless, the idea is now influencing MAP’s M&E design and management, for example, through the use of co-evolution (letting the M&E framework evolve together with the implementation on the ground).

Using a simple M&E framework at the start of a project would promote the following:

- *Effectiveness*: Simpler frameworks mean more focus, fewer distractions for field staff, and less fatigue on the side of data analysts and managers.
- *Team learning*: Sacrificing large volumes of information during the early stages of a project is compensated for by more effective learning, whereby the teams become familiar with M&E processes, methods, and tools and gain a deeper understanding of the market systems at their own speed. (This is particularly important, as some staff are not M&E experts or familiar with systems theory.)
- *Tailor-made design*: Through a process of collective learning and consensus building, the teams contribute to the evolution of the M&E framework, develop a sense of ownership of it, and adapt it to their needs and the needs of market actors, many of whom were unknown to them during the inception phase of the program.

Given the intrinsic connection between what we pay attention to and the reality that surrounds us (i.e. between the M&E framework and the market system that the framework is trying to measure), allowing the M&E framework to develop from a basic skeleton (“bare bones”) into what is most practical and meets the needs of the program teams, donors, and market actors seems to be a more effective way of designing M&E frameworks in the context of complex and adaptive systems.

As the market system keeps changing, some of the interventions might also take some time to get going or mature. The formation of partnerships, for example, takes considerable time. If the M&E system is firmly in place before those relationships have matured or is fixed in a way that cannot adapt to changing program strategies or to broad systemic change, it won’t measure what is relevant. This also happened at the beginning of the operations of the media sector team, as explained by Hannington Isiaho: “Initially, when we came up with the indicators, I think we rushed a bit. When we started reporting back what we are doing in media, we realized that we have information, but we really don’t have [any]where to put that information. And that was the reason why, even last week, we saw that [in some cases] there are some missing ‘trigger’ indicators, [whereas in other cases] some of the indicators that we have placed at the trigger level actually fall at the market system level.”

## A Manageable Monitoring System

Another aspect is to keep the monitoring system manageable. This can also be achieved by keeping it evolving. The teams should thereby not only add layers to it but also drop measurements that were relevant in the beginning but have become less relevant when the program activities matured. For example, when working with retail companies, in the beginning it might be important to know that sales are moving and that customer orientation and service orientation are changing. Once these changes are manifested, they become less important for the program. Instead, other aspects become relevant, such as how the companies manage inventory, what credit systems within the chain look like, etc.

MAP has learned this the hard way, as confirmed by both Mike Field and Richard Waddington. As Field explained, “I think we have tried to think in the most complex sense of how a system would change, thinking it would be the leading edge. But in the end, we confused a lot of staff [early on] because we could not evolve them into thinking so complexly, starting off simple and letting them grasp the complexity on their own. In that sense, I think we made a misstep. Quite frankly, we probably should have simplified the M&E system and made it more complex over time.” Waddington added that “a key issue [has been] stripping away the huge plethora of indicators we have in our results chain. I mean, there’s a huge amount of indicators—difficult to quantify how many there are, but there are lots. [We’re] trying to recognize we can’t measure everything; we just need to focus on the most important things to understand how our businesses are growing.”

According to Judy Odongo, the Knowledge and Results Team (KRT) and the sector teams collaborate around the reporting. “The field teams have to fill out the monthly report only; then the KRT team in Nairobi does the write-up based on the discussions we have had from the monthly reports. Then, we have the quarterly meetings to discuss. The field teams have to complete just one report, and they have been happy with that. The different team members work on the same report; it is not about each person completing one report individually. We ask them to also give us [the KRT team] feedback to improve the reporting process, especially how to do it so that it does not disrupt their [field] work too much.”

## Work with the Collaborators to Collect Data

One of MAP’s most interesting M&E strategies is to build the capacity of key market actors to become effective sources of relevant information both for themselves and for the program.

An example of this can be seen in the media sector. Beyond the data collection they do as part of monitoring, the media team is also trying to develop the capacity of the radio stations to do more and better monitoring on their own through regular interactions with their audience. Hannington Isiaho explained, “If some of the programs are doing a quiz or contest, instead of just concentrating on those exclusively, you ask supplementary questions, such as: How long have you listened to this program? Have you experienced any benefits? What actions have you taken as a result of what you have heard in it? What kind of crops are you planting? The radio station can do that and share the information with us.”

The experience of the media team illustrates how a collaborator of the program can be not only an effective driver of change but also an effective provider of useful information about changes in the system. It is important, however, that the information that is collected is also useful for the collaborator, and that the collaborator sees the benefit of it. The collaborator should not just collect data that are needed by the program. The capacity to collect relevant data and act on them is centrally important for the adaptability of the market actor. In this sense, this capacity-building activity directly plays into the principle of sustainability as adaptability.

The MAP teams also know that this strategy is far from easy. At this stage of the process, Chiranjibi Tiwari declared, “If we don’t collect the information ourselves, we don’t get it. But, ideally, we should be able to capture changes [in] what farmers are saying or doing from the bottom up.”

## Part 2: Discussion of the Principles in Light of the Findings

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### Principle 1: Indirectness of Impact

This principle forms one of the basic premises of the program: that systemic change cannot be directly delivered by a development initiative from outside but needs to emerge from within the system. It is the system that actually benefits the target populations. Development programs are able to stimulate change in specific directions (e.g., change that is inclusive or that minimizes damages to the ecosystem), but the main drivers of change need to be the market actors themselves. Toward that goal, MAP works with market actors in the different sectors to develop new business models or improved business management techniques for the specific sectors. Beyond that, MAP is engaged in improving relations between actors, policy dialogues, and establishing capacity building and knowledge dissemination services to further strengthen the enabling environment.

During the interviews, it became clear that the principle is easily accessible and clearly understandable. The interviewees could directly relate the principle to examples in their daily work and report on how the principle manifests in MAP's strategy or monitoring system.

As discussed earlier, there is some debate over the question of which impacts can be defined as direct and which as indirect. Different perspectives on this question exist. Some see the collaborators as direct beneficiaries and the farmers or the poor as indirect beneficiaries. Some see it exactly the other way around. Still others see those directly involved in or connected to pilot interventions—both collaborators and the poor—as direct beneficiaries, and those who benefited via crowding-in as indirect beneficiaries. For the purpose of clarity, the principle should give better guidance as to what are considered direct and indirect impacts.

The current definition provided by the principle is that in interventions that are systemic all beneficiaries are indirect, because their context, relationships, and possibilities to access tangible and intangible assets are affected by the system itself, not by the program. The relatively few market actors with whom a program engages directly are, in fact, the collaborators. In other words, collaborators are those with whom the facilitator interacts *directly* to promote or catalyze changes in the structures or dynamics of the market system, which in turn *indirectly* lead to changes on the level of the ultimate beneficiaries. These ultimate beneficiaries can be either directly connected to the pilot activities of the program or benefit through the crowding-in of other market actors. This definition seems to be compatible with the general understanding of most MAP team members, but at odds with the traditional understanding and the still predominant understanding of the donors. The view of the donors is, naturally, still strongly imprinted in the monitoring framework.

This tension between the different definitions of direct and indirect beneficiaries arose in the original discussions and e-consultations around the principles. We are not likely to solve this problem here. One of the lessons from these discussions, however, was that even if we define all the people that benefit from a program's pilot initiatives as direct beneficiaries, there is a clear overemphasis on these people. The focus of systemic change initiatives should be on system-wide change and, hence, on all beneficiaries that benefit through wider and deeper changes in the system, such as the adoption of new business practices or improved knowledge flow leading to more innovation. The purpose of a program's intervention should be to experiment with different options to determine which interventions resonate positively with the actors in the system and are able to stimulate wider change. This is closely linked to the principle of depth of impact, which we can further strengthen. We see the need to focus on the system instead of the beneficiaries as the main message of this principle, no matter how direct or indirect beneficiaries are defined.

Still, there is a clear need for synchronization between market systems development programs, such as MAP, that follow the systemic M&E principles and the donors. The latter are still portrayed by some staff members as not interested in wider systemic change and mainly asking for "headline numbers" at the level of the beneficiaries. If donors are serious

about fostering systemic change (as they say they are and also express by funding more initiatives like MAP) and allowing systemic change initiatives to reach their full potential, they need to reflect on their administrative practices and their reporting and accountability requirements, and align these with the insights from the principles.

The need for indirect approaches is clearly shown in the experiences of different members of the MAP teams. Still, these experiences and perceptions about “poor communities” begs the question of how much we need to know about the lives and needs of a target population for interventions to be called successful. Can we know less and rely more on the knowledge and energy of the market actors? Can we do less detailed handholding of the “poor” and work more on the context that enables (or disables) them to engage with the rest of the system in ways that make sense to them? Is it time to let go of charitable paradigms and embrace one based on opportunities, interests, and capabilities?

## Principle 2: Depth of Impact

The concept of depth of impact was widely accepted by the program staff and is also reflected in the program’s theory of change and M&E framework. The program is giving strong emphasis to behavioral aspects of the market actors and sees as its mission fostering the normalization of behaviors stimulated through the interventions of the program. The aspects that the program wants to become the norm are centered on improved business practices, loyalty and trust, and long-term relationships that foster both growth and inclusiveness.

An important aspect of depth of impact is looking beyond the individual market actor and business model and finding emerging patterns in the wider system that show changes at deeper levels. The normalization of behavior among market actors can be seen as such a pattern, if it also reflects a real change in social or business norms and not only the uptake of certain behaviors like improved human resource management or client relations by a limited number of market actors. Some of the tools used in the program, such as the benchmarking tool, seem to lack this important dimension and exclusively focus on the individual collaborators of the program and how they compare in specific aspects like business practices.

If we follow the theory that lies behind the principle of depth of impact (i.e., Donella Meadow’s work on leverage points<sup>8</sup>), we can go a step further. Beyond the aspiration to change the rules in the system, for which MAP uses the normalization of new behavior as an indicator, lies the power of the system actors to add, change, evolve, or self-organize system structure. This links this principle to the principle of sustainability as adaptability. If we want to promote deeper-level changes, resilience, and sustainability, we need to be able to empower the system actors to change the very structure of the system by themselves, that is, to adapt the system to outside and inside changes.

Also in this principle, we again find the tension between the understanding of the program staff and the subsequent needs for monitoring and evaluation and the demands that are made by donors (for example, the donors’ demand for compliance with the DCED Standard for Results Measurement). Similar to the discussion about direct and indirect beneficiaries and their importance in proving impact in the first place, the proof of change required by the donors is often the numbers of jobs created and the increase in income. The number of beneficiaries, their increase in income, and jobs created are the “universal indicators” defined in the DCED Standard. At the same time, the program teams want to know whether changes at deeper systemic levels are happening and, hence, need different data that are collected using different indicators or without indicators at all, concentrating on observation and experiential information. This again shows that the program has largely internalized the principle. But again, the need to internalize it now needs to be reflected in the donors’ requirements of the program’s M&E frameworks.

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8. Donella Meadows (1999). “Leverage Points: Places to Intervene in a System.” Sustainability Institute.

## Principle 3: Network-driven Change

The validity of the principle can clearly be seen in MAP. The program shows the importance of understanding the networks' structures and dynamics, which is reinforced by MAP's experiences.

This is a relatively new area for development initiatives, and there are only a limited number of programs that are explicitly analyzing and measuring networks structures and dynamics. Understanding networks is essential to understanding how change is happening in a complex social system, how knowledge and information flow are exchanged, and which actors are central to these processes. Market development programs often focus on optimizing or improving the performance of individual businesses and other market actors who are seen as monolithic nodes in the system. Little attention has been given to the networks represented by these nodes. The connections and processes between enterprises are also determined by the structures and dynamics of networks. This can also be seen in the M&E framework of MAP, which is not really modeled around the idea of networks, network structures, and network dynamics. A lot, however, remains in the intangible domain, linked to the people that interact with the networks on a regular basis.

There is no need to modify the principle, as its importance could be clearly shown. There is, however, a need for better guidance for programs in how to implement it in their M&E frameworks. Network-driven change is strongly connected with indirectness of impact, the latter being a fundamental principle of market systems change.

## Principle 4: Unpredictability

MAP staff members are aware of the unpredictability of complex systems, and this is reflected in the way they work. In this sense, the validity of the principle is largely demonstrated by the case study. MAP has moved away from long-term strategic analysis and planning of fixed indicators and goals toward more flexible strategies, plans, and measurement. Decisions are decentralized, and the teams are encouraged to be flexible in the implementation of their sector strategies. Sets of activities—many of which are of an experimental nature—are designed to achieve particular goals, instead of sticking to rigid work plans.

One of the cornerstones of monitoring for unpredictability are the team discussions that go beyond indicators and focus on the collection and reflection of field observations and the detection of patterns from these observations. In this regard, the question about the meaning and function of indicators in the context of unpredictability becomes pertinent. Are we about to witness the demise of indicators as a key aspect of systemic M&E? This may not be so improbable, considering the importance of pattern detection in the field of complex systems. What then becomes important is the collective process of pattern detection, done in a systematic or orderly fashion and using both qualitative and quantitative data. Some further work on the systemic M&E framework could elaborate new tools and clearer guidance for these kinds of processes.

The principle of unpredictability is closely related to the principle of information deficit. The former refers to the fact that it is impossible to predict how a complex system will evolve, for how long it will remain stable, or when it will reach tipping points. The latter, on the other hand, refers to our inability to know everything about the system, no matter how much analysis, good models, and computational power we have at our disposal. Hence, the arrangements to work with unpredictability and to manage the information deficit can often look very similar, as can also be seen in MAP.

## Principle 5: Sensitivity to External Signals

The validity of the principle is definitely shown. For MAP, this principle is a very important determinant of facilitation activities. The people approached in the field show vastly different behaviors, depending on how they perceive the team members. The system has clearly been sensitized to the presence of aid programs. How a program uses its identity is thus really important and needs to be tailored to the specific situation. This can be seen when comparing, for example, interventions in the cotton or input sectors with the water sector. In the first cases, the program hides its identity and presents itself as market actor. In the second, it uses its identity and backing by international donors to advance change.

In some cases, this principle required more explanation than others before the interviewees could understand it. This may be caused by the broad nature of the idea of “external signals” and the fact that *external* is a relative term that depends on the boundaries we draw and on those sending and receiving the signals. Once the interviewees understood that this principle refers to how market actors change their behavior according to a wide range of information provided—consciously or unconsciously—by the facilitators, it was easier for them to see its application and implications for use, and relate it to examples in the program.

## Principle 6: Information Deficit

The notion of information deficit is clearly manifested in the program. Thus, the MAP teams strive for continuous learning through observation, discussion, and analyses of the data from the formal monitoring framework. The latter is continuously updated to reflect the needs of the staff and is, hence, co-evolving with the staff’s knowledge and understanding of the system. In this sense, the program covers the three dimensions that the principle deems important: *participation* (as they include the collaborators in the learning efforts), *learning* (as teams have dedicated spaces where they exchange learning and newly gained knowledge), and *flexibility* (as they have a monitoring system that is adaptable to new needs).

An interesting aspect that is not part of the original principle is the differentiation of “cold analysis” and “poking the system” to learn how the system reacts. A good up-front analysis is seen as necessary to shape the initial strategy of the interventions. Early interaction with the system is seen as equally important and necessary to understand its dynamics. Only through interaction can some of these dynamics and structures become evident. This means that the program needs to start with pilots early on and learn from the results of these pilots, instead of trying to analyze every detail of the system before starting to intervene.

Another interesting aspect was unstructured data collection. The experience of the program basically shows that different data are collected depending on whether the interviewer interacts with people in a formal way or whether the interaction is based on an informal conversation. This aspect has not yet been considered in the original description of the principle.

As pointed out above, information deficit and unpredictability require similar strategies within the program: openness to new information generated outside the established indicators and flexibility to question and change assumptions, strategies and interventions.

Information deficit was another principle that required more explanation than the others. Therefore, improvements in how the principle is explained may be required in future documents.

## Principle 7: Sustainability as Adaptability

The validity of the principle is recognized by the program staff. Adaptability of the market system is at the center of the program's aims, as can be seen partly by its efforts to achieve deeper structural changes in the system. These changes target the capacity of market actors to continue changing their own systems in the face of shocks or new trends (i.e., making those systems more adaptable).

The explicit operationalization of this principle seems to be in a rather early stage and is not formally articulated in program documents or in the formal functions or roles of different units. Consequently, there is practically no explicit guidance available to staff about how the program may promote the realization of this principle on the ground.

Interestingly, despite the vagueness of the answers collected regarding the actual application of this principle, most of the interviewees offered well-articulated discourses about resilience and adaptability, and could make reasonable connections between this principle and other related ones, such as depth of impact, network-driven change, and unpredictability. It seems appropriate to improve the way in which this principle is explained, including the addition of theory and concepts about resilience and adaptability.

## Part 3: Conclusion

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### Usefulness of the Principles as an Analytical Framework

For this case study, we used the seven principles as an analytical framework to look at a specific market development initiative. The principles have thereby proved to be a very useful lens through which to assess a specific M&E framework and its orientation toward systemic change.

In the course of the case study, however, we realized that some principles are clear and widely accepted as important, such as indirectness of impact and sustainability as adaptability. Other principles are more abstract, such as information deficit or sensitivity to external results. Therefore, improvements in the way in which these principles are communicated, illustrated, and formulated can significantly contribute to their adoption and application in similar programs.

In general, the principles gave clear guidance to analyze MAP's M&E framework and different aspects of its strategies and implementation. It also seems that they could be used to evaluate the appropriateness of M&E frameworks of market systems development programs, though additional guidance on how to do this needs to be developed.

### Suggestions for Future Work

This case study has proven to be most valuable in making the principles more tangible by exemplifying their application in a concrete program. Consequently, it makes sense to find ways to document more cases that can lead to the identification of patterns in the application and benefits of the principles in different contexts.

An online collection of short stories or anecdotes from different programs on how they see individual principles manifest in their initiatives could result in a rich and diverse database of illustrations of how the principles can be applied, complementing the more elaborate and detailed case studies. With this diversity of stories, it would be possible to ensure that the principles are not seen as strict recipes but as flexible guidelines for effective monitoring and results measurement in the context of market systems development.

Given that the case study has provided a baseline of MAP's current and future initiatives and strategies, it would also be very useful to follow up the evolution of this program in order to build additional evidence and to provide answers to the questions generated by this study.

After the original synthesis paper with the description of the seven principles was released at the beginning of 2013, several experts have kindly provided valuable comments, questions, and ideas for its improvement. Given the acceptance and usefulness of the principles, it would be very important to use those inputs and the lessons learned from this case study to produce a new and improved version of the original paper.

Finally, it is important to use the lessons that we have learned and will learn in the future to contribute to the concrete application of the principles in the design and management of systemic M&E frameworks. It would be possible to achieve this through the production of practical guidelines complete with tools, tips, recommendations, and examples to inspire both practitioners and donors to adapt the principles to their contexts and specific needs.

### Final remarks

We set out to document concrete applications of the seven principles in the field in the Kenya Market Assistance Program. What we found is that the seven principles strongly resonate with the realities in MAP and that none of the principles was fundamentally challenged by what we saw in the program. In fact, the MAP program can be seen as

supporting further work with the principles, in order to refine them and create guidelines that help systemic change initiatives to set up meaningful M&E frameworks.

As this case study shows, the principles can also be used as an analytical framework to assess or even evaluate systemic change initiatives and their monitoring and results measurement frameworks. By further refining and formalizing them, they can provide an alternative to currently predominant standards that are at odds with both these principles and the experiences of the people on the ground.

This case study adds rich content to the principles. With that and the suggested changes, we hope that the principles become more tangible and applicable for practitioners in their own work. With the suggested future work, we hope to continue to provide improvements to and background for the principles, and to develop them as a resource for economic development practitioners and donors alike to guide their interventions and practices.

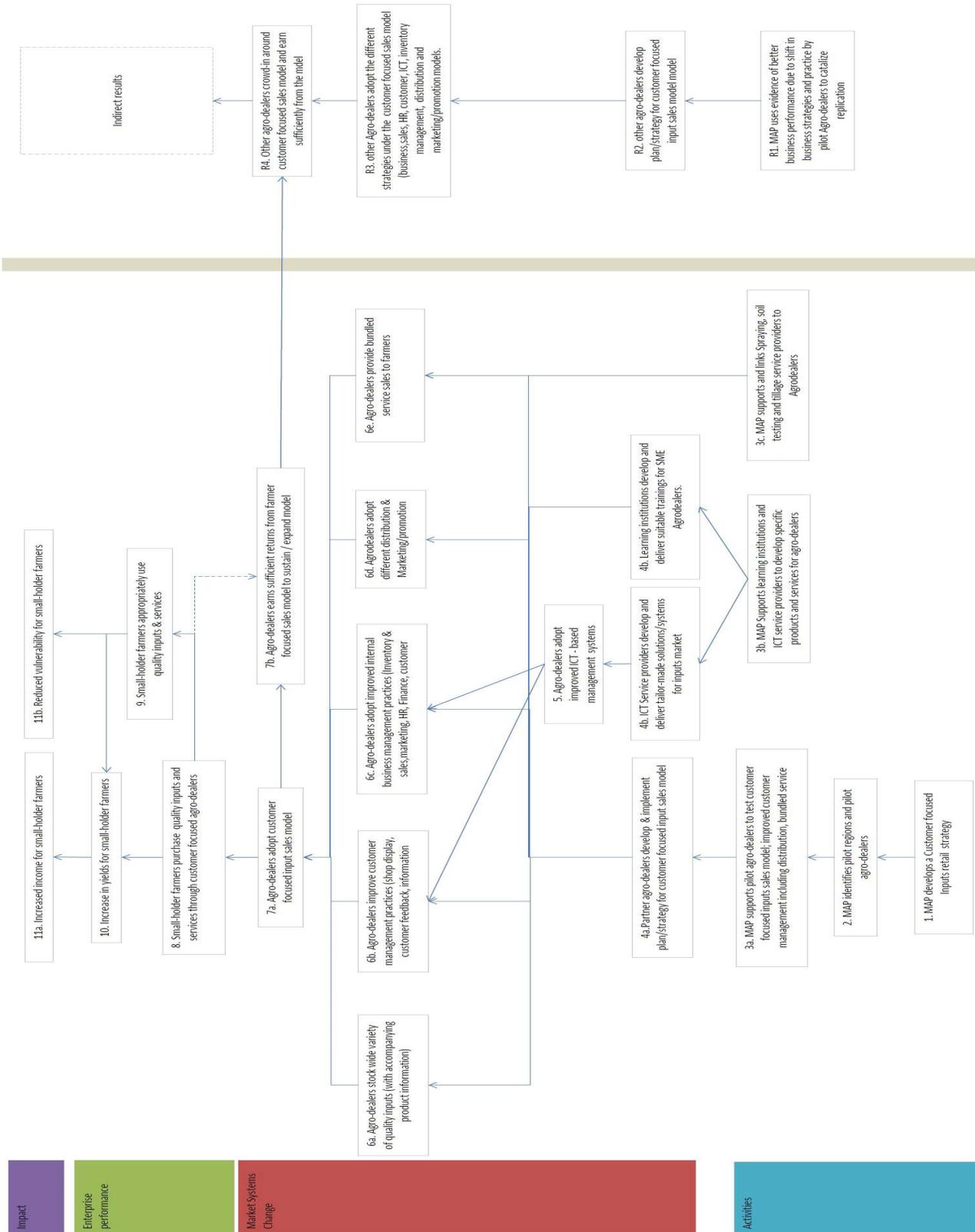
# Annex 1: Overview of Indicators for Depth of Impact

The following are examples of the types of indicators that MAP uses to detect changes at deeper levels of the market systems its teams are trying to transform.

Level/Indicators	Comment
<p><b>Behavior change:</b></p> <ul style="list-style-type: none"> <li>• Investment patterns</li> <li>• Technology use</li> <li>• Relationships with suppliers and buyers</li> <li>• Strategy change: from price focus to value-addition focus</li> </ul>	<p>“Cotton does not have what I call proper processors; they have traders that process a little. So you can tell quite a lot from the ways in which they use and invest in machinery, the business decisions they make, how they treat their suppliers and buyers. Normally, they invest a lot of their effort toward lowering purchasing price and increasing selling prices and not in value addition.” (Mike Field)</p>
<p><b>Trust:</b></p> <ul style="list-style-type: none"> <li>• Transparency about quality of agricultural inputs</li> <li>• Possibility and freedom to choose between different types of products, qualities, and prices</li> <li>• Win-win outcomes</li> <li>• Friendship and strategic alliances</li> <li>• Convergence of objectives, mainly around mutual growth</li> </ul>	<p>“Farmers are not buying inputs—sometimes because they don’t have the money, but sometimes because they think that the agro dealers are ‘crooks’ who will take all their money. When we see that agro-dealers start offering farmers a larger range of fertilizers from different companies and information that they were not providing before. When we see that the attitudes of farmers start changing as a result. When the farmer starts looking at the agro-dealer as a friend or as a collaborator that is helping him to improve their farm, and the agro-dealer’s business is improving too ... for me, that is success.” (Susan Maina)</p>
<p><b>Loyalty:</b></p> <ul style="list-style-type: none"> <li>• Long-term relationships based on mutual interests and policies or norms that promote and enforce the rule of law</li> </ul>	<p>According to Mike Field, a core lever point for MAP is the “normalization” of growth-oriented strategies defined by better relationships between businesses and their clients and their awareness that to grow they need more clients and more loyal suppliers. If there is no business incentive to move past trading relationships into alliance-based relationships, then there is no way to get inclusivity. Field added that in order to move the system toward more inclusivity, market structures that introduce incentives for growth and value addition (rather than just trade) and promote rule of law (rather than informal rules) are needed.</p>
<p><b>Consumer awareness:</b> Consumers’ appreciation of value addition by the businesses from which they buy</p>	<p>“The appreciation of the benefit of the change by the consumers or the ultimate beneficiaries. That needs to happen.” (Chiranjibi Tiwari)</p>
<p><b>Business management patterns:</b></p> <ul style="list-style-type: none"> <li>• Human resources</li> <li>• Production processes</li> <li>• Information</li> <li>• Decision making</li> </ul>	<p>According to Mike Field, the teams are tracking ownership and speed of adoption of new practices and thinking—in particular, regarding business management processes, “how they manage staff, how they manage their systems, how they use evidence, and how they make decisions.”</p>

Level/Indicators	Comment
<p><b>Participation in policy change and advocacy:</b></p> <ul style="list-style-type: none"> <li>• Who participates</li> <li>• Who should participate, and why they are or are not participating</li> <li>• Interactions and collaborations to change policies</li> <li>• Accountability mechanisms</li> <li>• Enforcement mechanisms</li> </ul>	<p>According to Mike Field, the teams not only pay attention to changes in policies but also to how the policy process works, how civil society is engaging and contributing, who is being held accountable for policy objectives, how they enforce policies, and how they turn policies into regulation. “We are starting to look at all of these functions within the policy system; what organizations should be doing what and why they aren’t doing something if they should. We are trying to look at policy change from a social systems perspective.”</p>
<p><b>Relationships between the actors:</b></p> <ul style="list-style-type: none"> <li>• Improved or new relationships</li> <li>• The factors and motivations that bring the actors together</li> </ul>	<p>“We must look at the relationships among the actors as an important element of our systemic change, in addition to the income change and ultimate benefits. End results are important, but we need to see if there is a self-sustaining mechanism developed and working toward the goals. That must be monitored if we really want to say that this system is working and we are creating a sustainable system.” (Chiranjibi Tiwari)</p>
<p><b>Repeated sales:</b></p> <ul style="list-style-type: none"> <li>• Improved or new relationships</li> <li>• Sustainability of relationships</li> <li>• Changes in investment patterns</li> <li>• Increased freedom of choice</li> <li>• Increased product/service quality</li> <li>• Client-oriented business strategies</li> </ul>	<p>“The further you come up to the impact level, the narrower your scope is, and you zero in on a narrower moment in time, not on the broader system change you’re trying to achieve. Jobs are a great example of that. You might have created a job today, but because it’s seasonal labor, that job is gone tomorrow... If you’ve come much further down in the system and you’ve seen smallholder farmers engaging with an agrovet, going back for repeat sales and purchasing what they need for their farm, then those are indicators that they’ve got the income to make that investment and that they want to make it.” (Richard Waddington)</p>
<p><b>Perceptions and preconceptions:</b></p> <ul style="list-style-type: none"> <li>• Of other actors</li> <li>• Of self (how actors perceive themselves)</li> <li>• Stigma</li> <li>• Peer pressure</li> </ul>	<p>“A lot of what we try to measure are perceptions and change of attitude, especially when you send a message over the radio, that is what you are more interested in in the first place. If the perceptions and attitudes are not right, then the likelihood that something else is going to change is very low. We are interested in more SMS, calls, and attendance to live events, but we are [also] interested in what is beneath all that. That is more important to us than the numbers alone.” (Clement Tulezi)</p>
<p><b>Knowledge nodes, structures, and flows:</b></p> <ul style="list-style-type: none"> <li>• Who produces, stores, and keeps knowledge up to date</li> <li>• How information and knowledge are flowing throughout the system</li> <li>• How existing knowledge is combined to produce new knowledge</li> <li>• How collaboration for innovation is happening and who is participating</li> </ul>	<p>“We are working with the universities to adopt more appropriate training methodologies and to restructure their internship programs. We have three pilot programs running at the moment with rural universities.... One of the concerns we have is that academia is completely disconnected from business. We’re looking at setting up a challenge fund where universities and businesses need to apply together to do something for the business, trying to break down those barriers.” (Mike Field)</p>

# Annex 2: Example of a Results Chain Indicating Indirectness of Impact, Depth of Change, and Network-driven Change



# Annex 3: Benchmarking Tool

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## Benchmarking Pro Poor Market System Growth

### *Rationale*

M4P managers require better frameworks/tools to capture and analyze operational information from multiple sources and using multiple methods to make informed decisions in the course of implementing cost-effective interventions:

1. To adjust strategy and related actions as more is learned about how market players respond to the effects of project offers:
  - Are the **leverage** points chosen by the project working?
  - Is there **momentum** toward adopting and adapting new ideas for greater productivity and shared benefits?
2. To choose the right **tactic(s)** to manage the project's relationships with all market players over time:
  - Is the project working with different mechanisms to allow for **self-selection**?
  - Is there a time to "**wait and see**" a partners' buy-in/ownership before doing more?
  - Is there a compelling reason to retain an underperforming partner for **strategic** reasons: to create political space, or as a placeholder to signal lessons for other partners to take on?
  - Is the project following an open door policy (i.e., open **24/7,365**) to allow any and all existing partners to re-engage when useful?
3. To assess overall progress of the project's effectiveness in accelerating the adoption and adaptation of new/better ways to improve productivity/inclusiveness by market system players.
  - Is there evidence of increasing **adoption** of new/better ideas, by whom and by when?
  - Is there evidence of **adaptation** by market players to improve on these ideas, by whom and by when?
4. To determine when the desired change for continuous **innovation for pro-poor growth** is the accepted norm of key market players who perform key market functions:
  - Do the inter-firm relationships exhibit good forms of **competition and cooperation**?
  - Are the key players in **inter-connected systems** adapting their offers in line in system requirements?
  - Are the players who **set, enforce, learn and adapt the informal and formal rules** doing so to advance a solution seeking system?

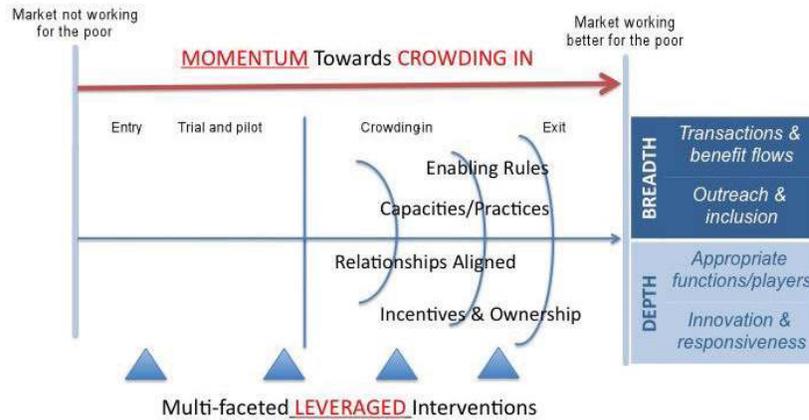
### *The Framework/Tool*

Origins: M4P seeks to facilitate sustainable pro-poor growth by improving the performance of market systems and its players to continuously and inclusively seek solutions to grab opportunities and combat threats to growth. The systemic change approach is best depicted by [Figure 1](#):<sup>1</sup>

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.....  
1. The Springfield Centre M4P approach (adapted)

## Figure 1. Facilitate Market System Change



The M4P approach posits that the condition of sustained change – that a solution seeking norm exists -- is when there is both breadth and depth in the market system:

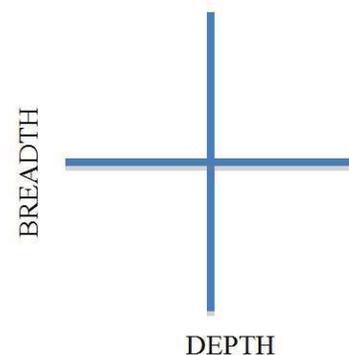
- *Breadth*: The coverage and/or outreach to more users relative to potential users.
- *Depth*: The crowding-in of more inter-connected system players/functions and more ownership/investment from players with the desired attitudes and practices.

Describing the benchmarking framework:<sup>2</sup> The framework takes the two variables of breadth and depth to create four different conditions that could help a facilitator determine progress towards sustainable pro-poor market system change at any given point during implementation.

The Breadth Axis: The two conditions in the matrix are taken directly from theory of the adoption process.<sup>3</sup> This theory posits that the speed of adoption of new ideas will go through a predictable sequencing given the willingness of potential adoptors to take on new ideas. The process goes through 5 stages: innovator, early adopter, early majority, late majority and laggard. The matrix (Diagram A.) allows project managers to capture and analyze data that could describe the presence (or absence) of two of the five stages:

- *Early Adopters*: This is the group that have been influenced by the innovators or the first movers of any new idea. Early adopters—those who are more comfortable taking a risk on a new idea as long as doing so preserves their status of “opinion leader” in their community—is the first indicator that new ideas are finding their way into the system.
- *Early Majority*: This is the next group in the adoption process theory. Adoption by the early majority—those who wait and see others adopt and benefit from a new idea before uptake—is the next indicator that a majority of potential users have adopted the practice.

Diagram A: Benchmarking System Change



2. The Springfield Centre is working with a similar framework – referred to as Adopt/Adapt/Expand/Respond – to benchmark systemic change at a specific slice in time.

3. Everett Rogers, *Diffusion of Innovations*, 1962

When the project has reached the early majority it is assumed that the next stages—late majority and laggards—will follow without continued investment of project resources.

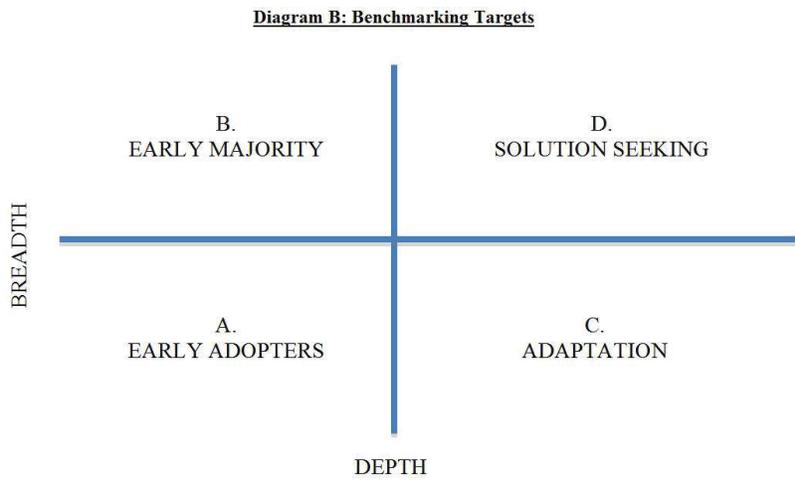
More descriptors would need to be included to allow the project to assess progress towards pro-poor system growth: (i) *who* is adopting (demographic, economic, gender), (ii) *what* is being adopted (attitude, the idea, the practice), and (iii) the *pace* at which adoptions takes place.

*The Depth Axis:* This axis comes from a body of knowledge in institutional and behavioral economics<sup>4</sup> which posits that the presence (or absence) of continuous adaptation to external opportunities or threats is a sign of a competitive, solution seeking system.

- *Adoption:* This condition is the starting point: market players (all adopters of new ideas in the core as well as support providers and rules setters) are embracing a new way of doing business better.
- *Adaptation:* This is when adopters “adapt” or improve their “value proposition” for their customers and suppliers. The axis also describes actions taken by players in inter-connected systems (finance, ICT, equipment) to adapt their offers to meet the needs of players in the core of the system.

More descriptors or information would be required to assess this axis from both the perspective of firm and wider system change: (i) greater depth at the firm level would be described by investment in people, systems, practice; and (ii) greater depth at the wider system level would be described by the crowding-in of new players performing new functions effectively in support of the systems’ adoption of continuous and inclusive innovation as the norm of doing business.

When an M4P project has reached an early majority of adopters and when a high degree of adaptation is exhibited by these players (core, support and rules) then the evidence exists to describe this system as one that is continuously seeking solutions in the relationships and rules required for their benefit and for sustained and inclusive (pro-poor) growth. This is depicted graphically by Diagram B.



### Interpreting the Benchmarking Tool

An M4P manager armed with the knowledge of the effects of project offers on different market players to foster (1) the attitude that change “works” for them as does (2) the adoption/adaptation of practices to improve productivity, relationships and rules then the manager can plot progress (or regress) at any point during implementation. Using the matrix to represent overall progress, the M4P manager/staff could plot five different points on overall progress:

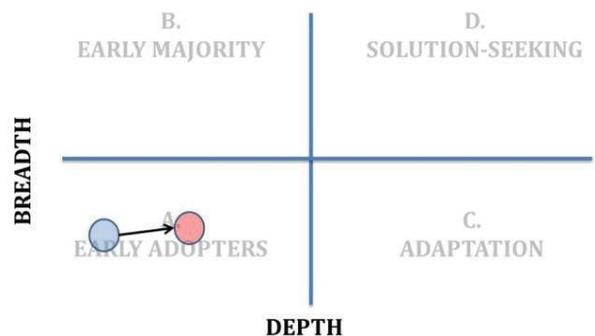
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 4. Eric Beinhocker, *Origin of Wealth: Evolution, Complexity, and the Radical Remaking of Economics*, 2006

- i. Early Adoption/No adaptation: This is a likely condition of a project that is just starting out where ownership and broader adoption has not yet happened because the time to understand the cost benefits has been insufficient. It could also be an indication of underlying systemic disincentives that a project would need to assess against its hypothesis on the speed at which a new practice, relationships, rules will be adopted provided it is in line with the overall direction of desired change.
- ii. Early Adoption/Some adaptation: A condition that shows the early adopters are taking ownership and investing in the new practice by seeking changes that better fit their value proposition to the market. While it could be an important step in the right direction, it could also be an indication that other components of the system such as informal or formal rules are impeding the uptake by a wider set of system actors. In this case the project would need to rethink its assumptions on uptake by the early majority of potential users.
- iii. Early Majority/No adaptation: A condition where a wider set of actors have adopted, but indications of ownership are not present through investment/adaptation. While this condition would be a common step in the early stages of a systemic change process, a project would have to track increased ownership/normalisation to determine if other forces are limiting the systemic change process. In cases where ownership is overly slow or is not developing at all, there could be two causes. The first cause could be the project's intervention tactics: if project resources lower the risks of adoption too much this can foster high levels of adoption, but low levels of ownership in a given practice/change process. If the intervention tactics are not the problem, then the second possible cause is probably linked to trust issues driven by formal/informal rules.
- iv. Early Majority/Some adaptation: A condition that can be described as evidence that the value of continuous upgrading is taking root in the system. The early majority have adopted the practice with evidence that adaptation is taking place. Once again this plot point would have to be interrogated further relative to direction and speed of change and who is represented in this space (is it pro-poor change?)
- v. Early Majority/High adaptation: When an M4P project can find robust evidence of a high degree of breath and depth in the market system this can be interpreted to mean that the desired attitudes and practices of continuous upgrading have become the accepted industry norm. This is the stage at which an M4P project determines the relative merits of continuing to invest in this intervention area or exit this and enter into another part of the system where facilitator engagement can leverage more benefits of wider systemic change.

### Road Testing the Benchmarking Tool

Project scenario:<sup>5</sup> A project working in agricultural inputs is attempting to generate increased access to products and services in order to increase smallholder productivity in a number of commodity crops. Below describes the project's interventions, it's assessment of progress and adjustments taken over time to facilitate more crowding-in by all market players in a better functioning small farmer market of agriculture inputs and services. Refer to Diagram D below to see how the authors used the benchmarking matrix to plot the change process over time.

- i. Early Adoption/No adaptation:
  - *Intervention*: The project cost-shared in-community promotional events as a starting point to prove the value of the smallholder market to commercial input providers. The input providers generated sales and showed willingness to conduct additional promotional meetings, including covering an increasing percent of the promotional costs.

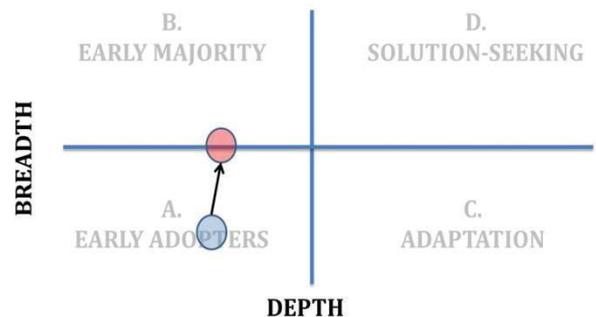


5. Scenario based on the authors knowledge of the PROFIT project in Zambia from 2005-2008.

- *Adjustments:* There were few participating input providers – despite better than expected farmer adoption rates – who saw opportunities to define a more structured way to deliver products and services to small farmers on an ongoing basis. At subsequent promotional events, the project convened discussions between input firms and farmers on a number of potential retail models they could develop together. The commission based community agent model was identified as the most appropriate for the context... disbursed and distant demand from the sources of supply.

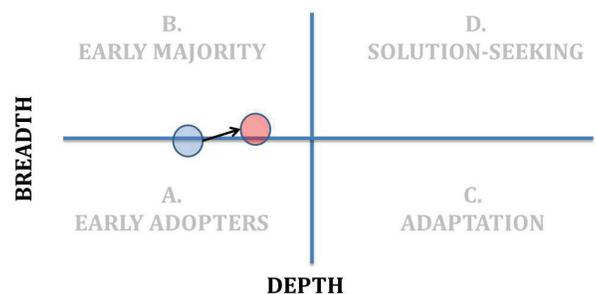
ii. Early Adoption/Some adaptation:

- *Intervention:* Participating input providers adapted their traditional town based distribution model by adopting the community agent model. This included changing the input firms management structure, designing a commission based sales mechanism and limiting any customer credit in the initial business model. Project support was limited to technical assistance and cost share on promotional events.
- *Adjustments:* Some firms moved forward with investments in the model, but the total number of firms that adopted this new distribution model was limited. The project facilitated non-adopters to conduct promotional events by lowering the risks further in two ways: (i) informing them on what is happening with competitors that are taking on the agent model, and in some cases, (ii) increasing the cost share for the first couple of promotional events.



iii. Early Majority/No adaptation:

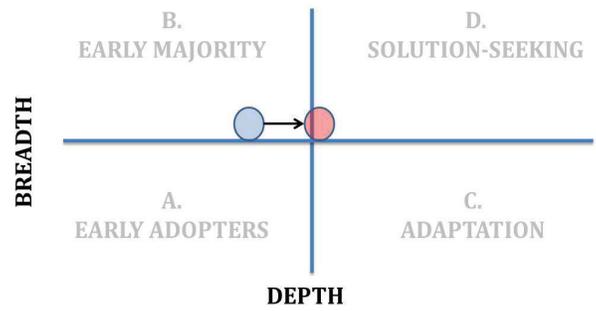
- *Intervention:* Out of a potential 12 input supply firms, 6 recruited in-community agents and defined the basic structures and policies for the their agent network. Project support to these six firms included technical assistance, cost share on training agents, and training agent managers
- *Adjustments:* Gaps in farmer uptake continued to lag in key technologies such as herbicides for a couple of main reasons: (i) farmer's still lacked a good understanding of cost/benefits of herbicides; (ii) limited farmer access to sprayer equipment to apply recommended herbicides; and (iii) very low "know how" on proper chemical handling and use among the few farmers who did use herbicides. The result was perceived high risks, limited willingness for farmers to try the technology, and then poor performance of the technology for the few that actually did try herbicides. The project facilitated input supply firms to deliver the benefits of herbicides by testing a new service offer to small farmers provided by trained private spray service providers rather than farmers doing their own spraying with purchased herbicides. Specifically, the project provided technical assistance and cost share on sprayer training.



iv. Early Majority/Some adaptation:

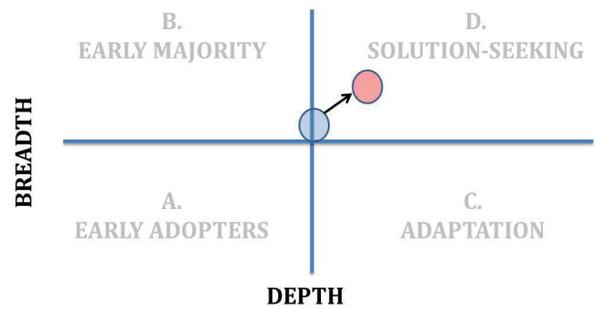
- *Intervention:* 12 months had passed since the initial intervention of in-community promotion events. Eight (8) input firms had adopted the community agent model and of those 5 had taken on spray services. Of the 8 taking on the community agent 3 had reported that their agents has establish sub agents on their own. Of the 5 that had invested in spray services 1 had reported the sprayers and agents doing some promotional efforts together in neighboring towns. Project support to these 8 firms included technical assistance and some cost share on training sprayers, new agents and agent/sprayer managers.

- *Adjustments:* Copy cat spray service providers were emerging in towns and stating they were trained by an input firm, but in fact were not. These spray service providers were not performing well and a larger percent of complaints included concerns that the chemicals being used were of poor quality or fake. The project identified this as a market opportunity to establish quality service as a differentiating factor that would be valued by consumers. The project engaged the input industry association which included all 12 input supply firms in discussions on a private/industry certification for sprayers.



v. Early Majority/High adaptation:

- *Intervention:* Essentially all the input firms had established community agents. Of these the majority were reporting some of their agents establishing sub-agents in neighboring towns. Eight (8) firms had established certified spray services, including signing up to the policies and guidelines of the industry standards for the certification process. Of the 8, five (5) had reported that their sprayer service providers had initiated services for pest protection for cattle. The 5 input firms invested in additional training and 1 firm even hired a vet to oversee the new service offer.
- *Adjustments:* The project identified that the firms had taken on the community agent model, but had not assessed their internal structures and capacities to grow such a strategy. To address this potential limitation on scale, the project worked with firms to conduct internal assessments on a range of management processes/procedures, including inventory management, staff performance based evaluation systems, and market research capacity to identify/forecast business volumes in smallholder areas. Based on the assessments, the project agreed to some limited cost share on technical assistance and training to firms to access ICT solutions and graduate student interns to introduce new management functions/capacity. The project also facilitated increasing links between veteranian service providers and input firms as means to further adapt to new market opportunities.



## **About SEEP**

The SEEP Network is a global network of over 120 international practitioner organizations dedicated to combating poverty through promoting inclusive markets and financial systems. SEEP represents the largest and most diverse network of its kind, comprised of international development organizations and global, regional, and country-level practitioner networks that promote market development and financial inclusion. Members are active in 170 countries and support nearly 100 million entrepreneurs and their families.



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