

Assessing Systemic Change

By Alexandra Miehlbradt and Hans Posthumus

February 2018

Assessing systemic change is challenging. The state of the practice around assessment of systemic change is evolving. This Practitioners' Note describes how practitioners are outlining systemic change pathways, identifying and assessing systemic changes, analysing the causes of changes and using information on systemic changes in program management. It highlights new developments and where more experimentation is needed.

1 Overview of the Practitioners' Note

This Practitioners' Note discusses key challenges for programs to assess systemic change and provides advice and tips from practitioners on how to address them. It is structured around four aspects of results measurement for systemic change:

- Section 3: Developing pathways of systemic change,
- Section 4: Assessing systemic changes in a market system,
- Section 5: Assessing the results of systemic changes for beneficiaries,
- Section 6: Using information on systemic changes in program management.

Systemic change is a continuum. This Note focuses on changes beyond program partners, as guidance on assessing changes among partners is addressed extensively in other publications. The Note uses the term 'partners' to mean the businesses and organizations that a program is working with on program interventions. 'Direct' changes in this Note means changes among program partners and the beneficiaries they interact with. 'Systemic' changes in this Note mean changes in a market system that go beyond the businesses and organizations that the program is working with.

2 The Challenge

Systemic change is defined as "change in the underlying causes of market system performance that leads to a better-functioning, more pro-poor market system"¹. Systemic change offers the promise of evolving markets that continue delivering significant benefits to poor people over the long term. Assessing the degree of systemic change is, thus, a critical task for PSD programs. However, in practice this is challenging.

Complexity versus practice: The first challenge lies in defining and outlining expected systemic changes. These changes are complex, and difficult to predict early-on in a program. However, to provide strategic direction, programs must still outline expectations for systemic change and how the program aims to influence them. These 'systemic change pathways' should acknowledge the complexity of the change process and the resulting changes themselves, but also provide a practical basis for tracking systemic changes.

¹ Donor Committee for Enterprise Development Standard for Measuring Results in Private Sector Development. Version VIII April 2017.

https://www.enterprise-development.org/wp-content/uploads/DCED_Standard_VersionVIII_Apr17.pdf

Degrees of systemic change: The second challenge lies in the nature of systemic change. Many programs are asked if they have achieved systemic change or not. But practitioners are finding that systemic change is not an event but a continuum. Systemic changes happen at different levels; they often start with modest changes related to specific innovations and, ideally, end with broad and multifaceted changes in norms across a sector. In between are degrees of systemic change that don't fit neatly into the yes and no categories. Practitioners must make sense of these complex changes, asking not if, but to what extent have systemic changes happened.

Information needs: The change process also makes assessment challenging. Most systemic changes happen beyond program partners. This makes it difficult for program staff to identify the changes and to assess them. When changes are broad, there are inevitably many factors and feedback loops that influence them. All of these characteristics of the change process can make it difficult to practically assess what systemic changes have happened and why. A deliberate effort is required to capture systemic changes, to unpack what factors contributed to them and to understand the program's influence on them.

Connecting the dots: Finally, staff have to make sense of the changes they observe on the ground and in the wider overall system. It is difficult to predict whether early systemic changes will trigger broader changes over time. Therefore, it is hard to decide whether a program should continue promoting a specific systemic change or should step back so that the change can happen autonomously and sustainably.

3 Developing Pathways of Systemic Change

There are three things that programs determine before outlining a 'systemic change pathway':

- the boundaries of the system(s) the program aims to influence,
- the types of systemic changes the program expects at different levels and
- the dimensions of change that are important to the program.

These three are discussed in this section, followed by advice on how to outline the 'pathway' itself.

3.1 Defining the Boundaries of Expected Systemic Change

The system boundaries show where the program expects to have influence and, therefore, where the program should monitor changes. To define the boundaries of the system, the program first outlines the broadest level it expects to influence, such as a sector (either nationally or within a defined geographic areas). A program then usually determines intermediate levels of change that will influence the broad system chosen. These are often systems within or related to the broadest level the program has chosen (such as support markets). There may be more than one intermediate level. Finally, the program outlines interventions that are expected to catalyse changes in the intermediate levels. Thus, programs typically outline two to four different levels of change, where changes at the lower levels are expected to lead or contribute to changes at the higher levels. A simple, generic example is provided in Figure 1 and a specific example in Figure 2.

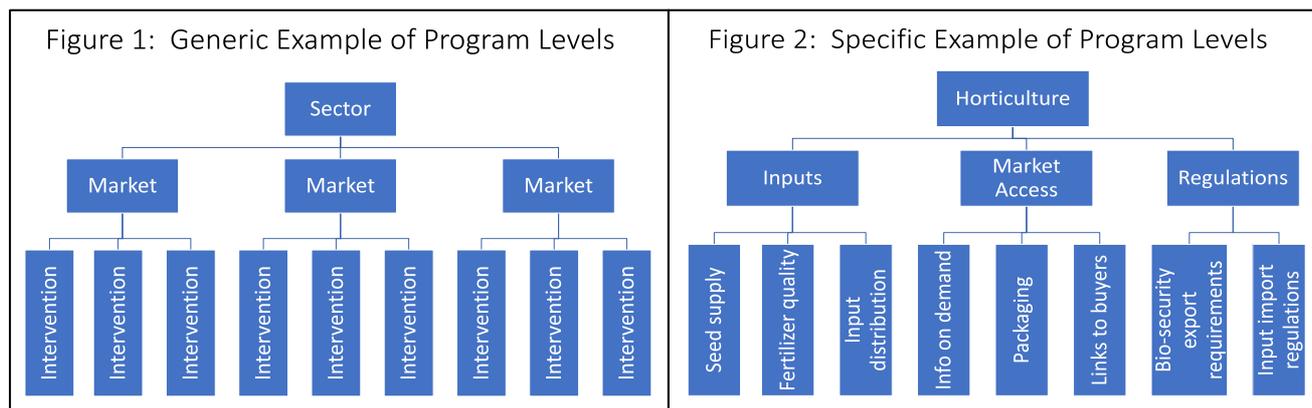


Figure 3 outlines common ways that levels are defined from the narrowest at the bottom to the broadest at the top. The list is not exhaustive but rather gives a flavour of how programs are defining different levels.

Figure 3: Program Levels



3.2 Describing Expected Changes per Level

Once the levels are defined, the program can consider what types of systemic changes it expects at each level. The table below lists some of the typical changes that programs may expect. Not all the changes are relevant to all contexts. For example, in small markets ‘crowding in’ may not be expected as there may only be room for a single business in a particular market.

Level	Typical Expected Changes
<p>Narrow:</p> <ul style="list-style-type: none"> • Partnership • Intervention • Intervention Area 	<ul style="list-style-type: none"> • Other beneficiaries copy direct beneficiaries' new behaviours. • Market players adapt an innovation to make it more effective or in response to changing context. • Other market players copy partners, "crowding in" to the market. • The diffusion of a key innovation (such as a new business model) throughout a system so that it becomes the norm. • Services, products or government support emerges to reinforce or build on a key innovation (response).
<p>Broad:</p> <ul style="list-style-type: none"> • Support Market • Systemic Change Area • Sector 	<ul style="list-style-type: none"> • Market players innovate more; diversity of products and functions increases. • Business models become more inclusive; poor women and men interact more with other market players and benefit more. • More and more diverse supporting inputs and services emerge; markets become more 'dense'. • Norms and rules increasingly promote transparency, innovation and competition. • Relationships in the sector become longer term, more information rich and increasingly based on mutual benefit. • There are more ways for market players to get information and increase their capacities. • Cooperation between the private and public sectors increases.

3.3 Outlining Dimensions of Systemic Change

Some programs choose a few dimensions of systemic change that are essential to the program. This helps staff outline systemic change pathways and monitor key changes. Some of these are relevant to market players and the system overall, and some are relevant to beneficiaries. A compilation of dimensions that programs consider is provided below.

Dimensions relevant to Market Players and the System
<ul style="list-style-type: none"> • Sustainability of introduced changes • Autonomy (independent action related to introduced changes) • Incentives (to continue and adapt innovations) • Capacity (to sustain new business models, adapt and innovate) • Resilience (in response to market changes and shocks) • Relationships and networks among market players • Norms that govern behaviours in the market system • Presence of a change driver in the system • Effective institutions • Public-private cooperation • Interactions among supporting functions and rules in the system (e.g. more supportive tourism regulations encourage the emergence of more services for the tourism industry) • Influence of one system on another (e.g. improvements in the cotton sector contribute to growth in the textile sector)

Dimensions relevant to Beneficiaries

- Depth of benefits
- Types of benefits
- Scale (absolute or as a proportion of the potential target group)
- Inclusion (of different groups, geographies etc.)
- Gender equality or women's economic empowerment
- Attitudes toward new opportunities
- Capacity to take advantage of new opportunities
- Resilience (in response to market changes and shocks)

3.4 Outlining the Systemic Change Pathway

The 'pathway' at any level:²

- describes the expected changes;
- specifies the incentives that different market players have to change behaviours;
- outlines the mechanisms through which innovations and learning can be transferred from one market player to another; and
- explains how programme interventions are expected to influence behaviours, relationships, incentives, rules, or capacities.

At the narrow (intervention) levels, programs are typically describing expected changes in an intervention plan and reflecting them in an intervention results chain. Some programs have been using a framework called the "Adopt-Adapt-Expand-Respond" framework to record the changes they observe as an innovation diffuses through a market system³. Some of these programs are now experimenting with using this framework to outline expected changes as well.

At the broad (market, sector) levels, a strategy document typically outlines the expected changes and how they are expected to happen within the boundaries of the system defined. The strategy document usually summarises the key expected changes in a sector or support market results chain.

Over the last few years, a number of programs have been experimenting with frameworks to help them outline (and assess) expected changes at the broad levels. Three of these programs presented their frameworks at the Advanced Training Workshop in Results Measurement: the Market Development Facility⁴, Enterprise Partners⁵ and iDE⁶. In 2016 USAID commissioned the development of a new framework, Disrupting System Dynamics: A Framework for Understanding Systemic Changes, that also specifically looks at how to

² Kessler, Adam. [Assessing Systemic Change – Guidelines for the DCED Standard](#). DCED, August 2014.

³ Nippard, D. et al. [Adopt-Adapt-Expand-Respond: a framework for managing and measuring systemic changes processes](#). Springfield Centre. March 2014.

⁴ Market Development Facility. [Achieving Changes in Markets – The MDF Framework for Defining and Populating Pathways for Systemic Change](#). Cardno, August 2015.

⁵ Enterprise Partners. *4I Framework for Assessing Systemic Change*. August 2017. For more information, email Adam Kessler at Adam_Kessler@enterprisepartners.org

⁶ iDE Bangladesh – Suchana. *Systemic Change Tracking*. July 2017. For more information, email Jess MacArthur Wellstein at jmacarthur@ideglobal.org or Iffat Ara at iffat.ara@ideglobal.org

outline and assess broader changes in systems⁷. Creating, adapting and applying frameworks for understanding broader levels of systemic change is an important area for practitioners to explore more.

Below are tips from practitioners on how to develop systemic change pathways.

- Start with the broadest expected level of change, often a sector, then work to the more specific expected changes at the narrower levels in turn.
- Outline the starting situation and the desired end situation. Then map out the expected changes in between.
- Ensure that the links to the benefits for the target group are clear, not only reaching many beneficiaries (scale), but also other aspects of interest such as types of benefits, depth of benefits, inclusion, women's economic empowerment, etc.
- Allocate the job of developing systemic change pathways to implementation managers and teams (rather than results measurement specialists), as implementation teams know the strategy and expected changes best.
- Context is critical. The changes expected and how they are likely to unfold will be different in different contexts.
- At the broad levels, the 'pathway' will necessarily be general at first, as typically there is not enough experience and understanding early on to define the intermediate changes in any detail. Overtime, as experience is gained, revise and add more detail to the expected changes in the pathway.

4 Assessing Changes at the Market Level

Change at the market level means changes among market system players around the target group. At the market level, programs assess if and to what extent the changes the team outlined in the pathway are happening and what other changes are happening. They analyse to what extent changes are likely due to program activities and to what extent they are likely due to other factors.

This section starts by outlining typical information needs for programs to assess systemic changes. It then provides tips on how programs monitor to identify possible signs of systemic change. Finally, it provides tips on how programs then assess those signs to verify if a change actually happened, to get information on the change and to analyse why it happened.

4.1 Outlining information needs

The table below lists typical questions program teams ask to assess some of the dimensions listed in Section 3.3. The answers to these questions are tracked over time to examine changes.

⁷ MarketShare Associates and ACDI/VOCA. [Disrupting System Dynamics: A Framework for Understanding Systemic Changes](#). Leo Report No. 47, USAID. October 2016.

Dimension	Questions
Dimensions relevant to Market Players and the System	
Autonomy	To what extent are businesses operating a new business model without program support? To what extent are they investing in the new business model and how are they adapting it? How much are they innovating to address new issues and changing context? Why?
Sustainability	How capable are businesses to continue operating a new business model? How willing are they? Is the new business model financially viable in different contexts? Why or why not? How supportive is the system around a new innovation? For example, are there supportive government regulations and complementary services to support the innovation? Why or why not?
Resilience	How capable are market players to understand changes in the market and respond to them? To what extent do they have the financial and management capacity to weather shocks? What, if any, concrete plans do they have on how to respond to shocks? What services are available to help businesses respond to shocks such as government assistance and insurance services? To what extent can businesses get these services? Why?
Presence of a change driver in the system	Are there one or more market players (private businesses, an association, a government agency) that get information on the whole system and encourage positive change in the system? How effective are the market players in that role? To what extent do these market players encourage changes that not only promote growth but also inclusion? Why?
Public-private cooperation	Are there mechanisms for businesses and government to talk about the system? How effective are they? To what extent do they enable businesses and government to cooperate to change the system in mutually agreed ways? Why?
Dimensions relevant to Target Beneficiaries	
Scale	What proportion of potential beneficiaries are getting access to, and benefiting from the introduced changes? How many are getting access and benefiting? How many are benefiting through indirect channels?
Inclusion	To what extent are potential beneficiaries from different groups getting access to and benefiting from the introduced changes? Are they benefiting to the same degree as others? Why or why not? Groups might include women and men, different ethnicities, people in different geographic locations, people with disabilities, people of different ages, people in different family circumstances etc. depending on what the program has identified as relevant in the context.
Depth	How and how much do beneficiaries benefit from the introduced change? To what extent is this benefit in line with their aspirations? Why? How could beneficiaries benefit more or differently?

4.2 Monitoring Systemic Changes

The aim of monitoring is to identify various signs of systemic changes, not to explore each change in depth, as that is done during assessment (see Section 4.3). Monitoring systemic changes is typically undertaken by implementation staff using observation and open-ended interviews. Below are tips on how to effectively monitor systemic changes.

- Help staff understand what to look for. Give examples of systemic changes that might happen; outline some, specific systemic changes expected in detail; when a staff member identifies a sign of systemic change, share it with all staff.

- Develop a simple ‘systemic change log’ where staff members write down possible signs of systemic change they observe in the field. (See example below.)
- Help staff get into the habit of talking to different market players. These interactions should be open ended conversations along the lines of “what’s new?” Ask about both the market player him/herself and others in the relevant system.
- Encourage staff to regularly consult a few key informants in the market system. These key informants are those people in the system who always know what’s going on and are willing to share their information.
- Encourage staff to look for change beyond interventions at broader levels of a system.

Alliances Caucasus Programme (ALCP) in Georgia designed a systemic change log that records both monitoring and assessment. It identifies who changed and how, when the change started and information on attribution of the change to the program. It also records if and when the change was verified and if the beneficiary level results from the change have been assessed. The log headings with one example are provided below.

#	Programme Client’s & Intervention Name	Type of Systemic Change	Verification		Impact Calculation added to system (Y/N) (Direct/Indirect Quant/Qual/Both)	Location (Region, Municipality)	Start Date	Business Description & Stability	Systemic Changes Attribution to the Programme
			Source	Verified/not Verified (& date if verified)					
1	1.1.1 Roki/ Jamal Dekanadze (KK)	Crowding in	Client, Interviewer BDO	Verified/ June 2016	Y Indirect Both	Tsalka	May 2015	A vet pharmacist of the programme facilitated vet pharmacy in Tsalka has opened a new vet pharmacy with the help of Roki after seeing the profitable market, offering all of Roki’s services, including cheap loans.	The working experience with the programme facilitated vet pharmacy helped her to open her own business.

Presented by Marika Bairamyan, Systemic Change Analyst on behalf of ALCP

4.2.1 Assessing Systemic Changes

Programs assess systemic changes to verify if a change happened, how it happened and why it happened. The process goes into more depth on the changes than monitoring. Typically, staff interview market players that have likely changed their behaviour to gather more (qualitative and quantitative) information on the change and why it happened.

A program needs to take the following steps to assess attribution:

1. Explore alternative causes of the systemic changes observed.
2. Analyse evidence of causal links between direct changes caused by the program and observed systemic changes.

Below are tips for each of these steps.

Explore alternative causes of the systemic changes observed.

- When interviewing market players, first ask what changes have occurred. Then ask, why? This is much more likely to uncover various reasons for change than asking businesses if they changed in response to a specific event or market player or asking first if they know about changes directly caused by the program.
- Before going to interview market players, make a list of possible alternative reasons why a change might have happened, using the team's knowledge of the market. Then ask market players explicitly about the influence of these other factors on the changes observed.
- Ensure that the aim of the team is finding out why changes happened, rather than seeking confirmation that changes happened because of the program. The aim affects how staff members ask questions and how they understand the answers.
- Be aware that this step is often forgotten so ensure that it is explicitly included in every assessment of systemic change.

Analyse evidence of causal links between the systemic changes and direct changes caused by the program.

- Find out when changes happened. For changes to be causal, they have to be sequential in time; only earlier changes may influence later changes.
- Gather information about market players' incentives for change and how they got the necessary knowledge to make that change. This will often show how information travelled from program partners to other market players and therefore how program activities likely influenced wider changes.
- Compare the nature of changes to the direct changes. Does it make sense that one change caused or contributed to another? For example, if it appears that a business copied the business model of a partner, are the business models similar? If it appears that government changed a regulation in response to changes in partner businesses, does the government regulation address the changes in partner businesses?

Within programs, there is a growing recognition that assessing attribution credibly is manageable at the narrower (intervention) levels but very challenging at the broader (market and sector) levels. Never-the-less, programs are still interested to understand their influence, to help them learn and improve their effectiveness and to report results to their stakeholders. Some programs therefore opt for a contribution analysis⁸.

It is important that contribution analysis is a robust process, similar to assessing attribution. Assessing contribution should aim to understand the relative influence of different factors on change and how these factors have combined together to generate change. This is an emerging area of practice where the PSD field can learn from other fields and where more experimentation and learning are needed.

4.2.2 New Developments in Assessing Systemic Changes at the Market Level

Programs are experimenting with ways to more comprehensively assess and understand changes at the broader levels. These include:

- Using other approaches, such as social network analysis and outcome mapping, to identify changes, understand the changes and explore why they happened.

⁸ For example, Enterprise Partners in Ethiopia aims to use contribution analysis for some higher-level changes in some sectors. See Kessler, Adam. [What have we learned from results measurement in industrialization programmes?](#) DCED/BEAM Seminar, February 2017.

- Using periodic ‘sector analysis’ during a program or as part of an evaluation to understand how and why a sector has changed since the beginning of a program.
- As part of a longitudinal evaluation, conducting a periodic survey of firms in a sector on the constraints they face and their performance. Econometric analysis of the data will be used to assess relationships between the constraints addressed by the program and sector performance.
- Triangulating ‘top down’ assessment of changes focused on what has happened at a broad level and why, with ‘bottom up’ assessment focused on changes predicted in a pathway and credibly linked to program interventions.

5 Assessing the Impact of Systemic Change at the Beneficiary Level

Assessing the impact of systemic change at the beneficiary level has focused only on the impact from the diffusion of a single innovation, for example the introduction of contract farming into a maize market system.

The main challenge in assessing the impact of an innovation on indirect beneficiaries is identifying who the indirect beneficiaries are. Once they are identified, assessment is very similar to assessing the impact on direct beneficiaries. The DCED guidance on assessing systemic change⁹ has a brief description of how to assess the impact of systemic change on target beneficiaries and there is a useful case study on it from the GEMS 1 program in Nigeria¹⁰.

Programs are yet to assess the impact on beneficiaries of multifaceted changes in a broad market system. This is an area for future exploration.

6 Using Information on Systemic Change

As a program matures, it is important to increasingly use information gathered on systemic changes to inform decisions on interventions, strategies and the program portfolio. Many programs have a regular ‘internal review’ process, where they step back and reflect on what is working, what is not and why and use that analysis to make decisions¹¹. Using information on systemic changes should be integrated into this process. The table

The [Market Development Facility](#) conducts ‘sector review meetings’ every six months to discuss the progress of interventions in a sector and how multiple interventions are contributing to expected systemic changes. In Pakistan, one of MDF’s envisioned changes is to increase the availability of inputs to small holder livestock farmers so that they can produce better quality and quantity of wool, milk and meat for the market. Under this ‘systemic change area’ one set of interventions works to increase the availability of silage (nutritive fodder) by enabling local entrepreneurs to start up and produce small bales of silage appropriate for small farmers. In a sector review meeting, the MDF team discussed that the business model was successful and other local players had started to crowd in, but that the demand for silage was still far from met. Thus, there were positive signs of systemic change, but the interventions were not catalyzing change at sufficient scale. In response to this analysis, the team developed an intervention with a bank to provide financial solutions to prospective silage entrepreneurs, with the intention of enabling a significant increase in the scale of silage production and sales to small farmers.

Muneeb Zulfiqar, Pakistan Quality and Inclusion Coordinator, MDF

⁹ Kessler, Adam. [Assessing Systemic Change – Guidelines for the DCED Standard](#). DCED, August 2014.

¹⁰ Sen, N. and Hafiz, W. [Measuring Systemic Change – The case of GEMS1 in Nigeria](#). DCED, September 2015.

¹¹ For a case example, see Stewart, Tim et. al. [Using Information on Results in Programme Management – The case of Samarth-NMDP in Nepal](#). DCED, 2015.

below outlines challenges practitioners have faced in this process and their tips to overcome them. More learning is needed on analysing and using information on systemic changes.

Challenges	Tips
<p>Program teams may focus more on the challenges and observations related to interventions and miss the bigger picture of systemic change at the broader levels.</p>	<ul style="list-style-type: none"> • Conduct separate internal reviews for each level in the program. As the program matures, emphasize analysis of broader changes during the reviews. • Specifically include discussion of systemic changes in the internal review agendas. • Use the systemic change pathway diagrams to stimulate discussion. • At the broader levels, discuss change both “bottom up” and “top down” to help understand the bigger picture, check assumptions and mitigate bias in the discussion. A “bottom up” discussion starts with what the program is doing and the evidence that those activities have stimulated indirect or systemic changes. A “top down” discussion starts with the changes that are happening at the broader level – in the market or sector – based on available evidence. It then considers what factors might have influenced those changes based on evidence from the field.
<p>Change at the narrower levels is usually quicker than at the broader levels. Frequent reviews at the broader levels may show minimal progress.</p>	<ul style="list-style-type: none"> • Time reviews in line with expected changes at different levels. Have shorter intervals between reviews at the narrower levels and longer intervals (several business cycles) between reviews at the broader levels. • Don’t expect broad systemic changes quickly, particularly when they rely on several different interventions areas to work together to generate broader change (as is typical in weaker markets). Do consider signs of possible future changes, such as interest in innovations and changing attitudes.
<p>It is difficult to determine if emerging systemic change will keep going by itself, or whether additional program activities are needed to further promote a desired change. For example, if a non-partner business seems interested in copying a new business model, should the program wait to see if they do or partner with them to help them?</p>	<ul style="list-style-type: none"> • When systemic changes emerge, explicitly discuss the decision in internal reviews: Should the program wait to see if changes keep going autonomously or replicate interventions or encourage changes through other activities? Recognize that more partnerships may create results faster and catalyse further changes but also may endanger businesses’ autonomy, sustainability in the system and program efficiency. • Review past decisions to identify lessons: Based on the evidence, was that the best decision? What is the learning that can be taken into other, similar decisions?

Challenges	Tips
<p>Program teams may focus on only quantitative or on only qualitative information when analyzing systemic changes.</p>	<ul style="list-style-type: none"> • Explicitly include both quantitative and qualitative information in internal reviews. Remind the team that a strong analysis requires both. • Include a few key quantitative metrics in each internal review – some at the sector level, such as overall sales of all enterprises in the sector, and some more closely linked to the program, such as the number of businesses that have crowded in. • Consider the qualitative evidence on the extent to which changes are happening as expected, what unexpected changes are happening and why. For example, changes in attitudes, behaviours, relationships and norms.

7 The Bottom Line

Programs can only improve their ability to catalyse lasting benefits for significant numbers of poor people by understanding when, why and how systemic changes are evolving. Yet, assessing systemic change is challenging, and a thorough process is needed: clearly outline expected systemic changes, develop a pathway describing how they might occur, monitor markets to identify signs of systemic change, assess how and why those changes are happening and use the findings to improve strategies. The PSD field is learning how to do this better and more experimentation is needed. Particular areas for learning are: frameworks for understanding broader levels of systemic change; approaches for robustly assessing a program's contribution to broader systemic changes; assessing the impact on beneficiaries of multifaceted systemic changes; and analysing and using information on systemic changes in program management.

Acknowledgements

In November 2017, the authors conducted a training workshop with advanced practitioners in results measurement for private sector development. Thanks are due to the Donor Committee for Enterprise Development, the Swiss Agency for Development and Cooperation and the Australian Department of Foreign Affairs and Trade for sponsoring both the workshop and these Practitioners' Notes. The content for the Practitioners' Notes emerged from the presentations and discussions during the workshop. The authors are grateful to all the participants, presenters and facilitators of the workshop for their willingness to share their challenges, insights and tips.

Alexandra Miehlbradt www.miehlbradt.com

Hans Posthumus www.hposthumus.nl

The views expressed in the Practitioners' Notes are those of the authors and do not necessarily represent the views of the DCED, SDC, DFAT or any of the programs represented at the workshop.