

Assessing Systemic Change

Implementation Guidelines for the DCED Standard, Adam Kessler, May 2021 *

Table of Contents

1	Where these Guidelines fit in the Standard.....	2
1.1	How to use these guidelines	2
2	Introduction to this paper.....	3
3	Introduction to systemic change	4
3.1	Why are systems important?.....	4
3.2	What is systemic change?.....	4
3.3	Boundaries and lenses	7
4	Using the DCED Standard to Assess Systemic Change.....	8
4.1	Control Point 4.1: The programme has an overall plan for assessing systemic changes at programme level.....	9
4.2	Control point 4.2: Systemic changes are assessed at market systems level and beneficiary level using appropriate methods	10
5	Conclusion.....	20
6	Annex 1: Indicators of Adopt, Adapt, Expand and Respond	22
7	References	23

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1 Where these Guidelines fit in the Standard

The DCED Standard specifies seven elements of a successful results measurement system. This guide covers the fourth element; capturing wider change in the system or market. For guidance on the other six elements of the Standard, visit the DCED website, or click on the links below.

1. [Articulating the Results Chain](#)
2. [Defining Indicators of Change and other information needs](#)
3. Measuring Attributable Change (see [here](#) and [here](#))
4. **Capturing Wider Change in the System or Market**
5. [Tracking Costs and Impact](#)
6. [Reporting Costs and Results](#)
7. [Managing the System for Results Measurement](#)

1.1 How to use these guidelines

These guidelines are for programmes implementing the DCED Standard for Results Measurement in Private Sector Development. The DCED Standard provides a practical framework for programmes to monitor their progress towards their objectives, enabling them to better measure, manage and demonstrate results.

The Standard specifies two control points for assessing systemic change. Each control point is further broken into compliance criteria, which indicate whether the control points are met or not. For each control point, this guide provides an explanation of what they mean, and advice on how to comply. It also links to further guidance and resources. Both control points are recommended, but not required to meet the DCED Standard.

Use these guidelines to better understand what the DCED Standard recommends, and how to achieve it. By following these recommendations, you will strengthen the quality of your results measurement system, and be better able to measure, manage, and demonstrate your results.

These guidelines are a work in progress, and we hope to update them in future. If you have any suggestions or contributions, please email admin@enterprise-development.org.

2 Introduction to this paper

In 2014, a previous edition of this guidance noted that systemic change lacks a “broadly accepted definition”. This remains the case today. For example, the [BEAM Exchange](#) argued that “the communities that use market systems approaches have struggled to define what constitutes systemic change and the pathways to achieve it.” A recent stocktake for USAID found “no single, comprehensive conceptual perspective on systemic change.”¹

A universally accepted definition of systemic change will probably never be developed. Fortunately, it is not required. Practitioners agree on many of the characteristics of systemic change, and have increasing experience in conducting simple, practical assessments that explore broader changes from programme activities. This guide draws on this experience, with the aim of supporting practitioners to understand the systems in which they work, how and why these systems are changing, and the impact for people living in poverty. We avoid in-depth theoretical discussions, although references are provided should the reader want to explore further.

This paper is aimed at users of the [DCED Standard](#), a practical framework for measuring, using, and reporting results in private sector development. The Standard aims to set a minimum acceptable level of monitoring, which can be verified by independent consultants during an ‘audit.’ Consequently, we outline the criteria that a programme aiming to measure systemic change must meet to pass an audit. It should be noted that programmes using the DCED Standard are not required to have an audit, and those that do can choose to skip the topic of systemic change. This recognises that methodologies for assessing systemic change, while critical to our work, are still in an experimental stage. We believe that there are many opportunities to improve conceptual and practical assessments of systemic change, and welcome innovation and experimentation in this field.

Section 3 of this guidance provides a brief introduction to systemic change, and why it is important. We avoid a crisp definition, instead introducing three ‘rules of thumb’ for identifying systemic changes. Section 4 details the criteria of the DCED Standard when assessing systemic change and provides information on how a programme can comply with them. Section 5 concludes with some key messages.

[Key Resource: A Pragmatic Approach to Assessing System Change](#)

This guidance is informed by the approach developed in the 2020 paper “A Pragmatic Approach to Assessing System Change”, co-authored by the DCED, Springfield Centre, Miehlabrad Consulting Ltd and Hans Posthumus Consultancy.

The Pragmatic Approach provides a much more detailed description of how systemic change can be assessed, with worked examples to help practitioners implement the advice. It is based on practical experience from market systems programmes. The Pragmatic Approach, including a brief overview and a full guidance paper, can be downloaded [here](#).

¹ [Jenal \(2019\), Measuring Systemic Change in Market Systems Development – A Stock Taking . USAID.](#)

3 Introduction to systemic change

3.1 Why are systems important?

There is an old saying in development: “Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime.”

There is a lot of truth to this proverb. Giving food away for free may help the recipients in the short-term but it is an expensive and unsustainable solution. Providing training can help people produce the food they need to live an independent, dignified life.

The key insight of systems thinking, however, is that the proverb is incomplete. It focuses on the individual who receives the training but does not consider the broader system that they need to make a living. For example, there is no point in learning to fish if you do not have fishing equipment and the means to repair it. Fishing may not be a viable livelihood if the river is polluted, or if fish stocks have been depleted by overfishing. If the trainee can catch fish, they need access to a market where they can sell it at a fair price, and refrigeration to stop it going bad. As the gendered language of the proverb suggests, fisherwomen may be denied the same opportunities as men.²

The example demonstrates that we are dependent for our livelihoods on **market systems**, made up of “intricate webs of players, actions and interactions that take time and effort to understand.”³ These are often referred to as ‘complex’ systems, due to the unpredictable relationships between different parts of the system. Each member of the system will have a different viewpoint on what is (and what is not) working. The perspective of the fisherwomen, for example, is likely to be different to that of a market stall owner. Moreover, any change in the system could have unpredictable consequences. For example, if many people are taught to fish, this might open more opportunities for people living in poverty – or flood the market and lower prices.

To create inclusive economic opportunities, we need to be able to understand and influence the systems that people experiencing poverty live and work in.

3.2 What is systemic change?

The DCED Standard recommends that programmes assess the changes that they facilitate in the system or market, often referred to as **systemic change**. This enables practitioners to learn more about the market system, track the emerging results of their intervention, and continually adapt their approach to increase their impact. It will also enable programmes to assess and report the full range of benefits that they are contributing to, demonstrating the value of a market systems development approach.

As discussed above, a precise definition of systemic change has proved elusive. We provide a broad definition here, and three ‘rules of thumb’ to help identify whether a change can credibly be considered systemic.

² This example is taken from [Systems Thinking: An Introduction for Oxfam Programme Staff \(2015\)](#).

³ Ripley and Nippard (2014), [Making Sense of Messiness](#).

3.2.1 Overall definition

A systemic change is a modification to how a system works, and what happens as a result.⁴ Consequently, to define a ‘systemic change’, it is first necessary to define the elements that make up a market system. The M4P Operational Guide outlines a widely-used approach to defining and analysing market systems, though programmes are welcome to follow alternative approaches.⁵

We propose three rules of thumb to identify whether a change is ‘systemic’. Firstly, systemic change should be **sustainable**, continuing without ongoing input from the programme. Secondly, systemic change should be **scalable**, capable of benefitting increasing numbers of people over time. Finally, systemic change should be **resilient**, adapting and enduring despite changes in circumstances.

The DCED Standard can accept a variety of definitions of systemic change from programmes, if they are consistent with the three rules of thumb.

3.2.2 Sustainable

The first rule of thumb is that a ‘systemic change’ continues to influence the market in the medium to long term, without further donor assistance.

This criterion is not met by many common development interventions. For example, training has a sustainable impact in the short-term, as the participant might continue to use practices once the training is completed. Handing out assets, such as goats or agricultural equipment, is sustainable in the short-term because the recipient can continue to use them. Eventually, however, training participants are likely to forget what they have learned. Livestock can get diseases or be sold, while agricultural equipment might break. Consequently, the sustainability of these results is limited.

More sustainable (and hence more systemic) results change the roles taken by businesses, governments, or other market actors, and the formal and informal rules that govern the market.⁶ For example, rather than providing training directly, the programme might support the development of a training centre that could provide educational courses at a reasonable cost, so participants could continue to update their skills. Rather than providing assets, the programme might work with financial providers, agricultural input providers, machinery retailers, or vets to ensure that project participants could continue to buy and maintain livestock or agricultural machinery after the end of the project.⁷

3.2.3 Scalable

The second rule of thumb is that a ‘systemic change’ is scalable, with the potential to benefit increasing numbers of people over time.

Most private sector development programmes start off by working at a small scale, introducing a new way of working which is expected to benefit people living in poverty. For example, the programme may partner with an agri-business which sells improved agricultural inputs (such as seed, fertiliser, etc), in order to market these products to farmers living in poverty. This initial partnership, often

⁴ [Miehlbradt, Shah, Posthumus and Kessler, \(2020\), A Pragmatic Approach to Assessing System Change.](#)

⁵ [The Springfield Centre \(2015\) The Operational Guide for the Making Markets Work for the Poor \(M4P\) Approach, 2nd edition funded by SDC & DFID.](#) The M4P Operational Guide distinguishes between three aspects of a system: These are the core functions of exchange, supporting services such as finance and information, which are necessary for the exchange to take place, and rules which govern how the other functions can operate.

⁶ These are known as ‘supporting functions’ and ‘rules’ in the M4P Operational Guide.

⁷ [Taylor \(2013\). Who Wants to Give Forever? Giving meaning to sustainability in development.](#)

referred to as a ‘pilot’ or ‘innovation’, typically expects to start by reaching a limited number of beneficiaries, as set out in a proposal or business plan.

A systemic change should be scalable beyond this initial group. There are many ways in which this might happen.⁸ The partner may invest independently in the business model, selling in new areas or expanding to new products. Alternatively, another agricultural input supplier, which the programme did not partner with, may adapt the business model (or elements of it), and start selling in a new area. Perhaps agri-businesses realise that smallholder farmers are a profitable potential market, or smallholder farmers increasingly take advantage of commercial agricultural opportunities. These changes, which may not have been anticipated by the programme, demonstrate that the wider market system is starting to adopt the change, independently of the programme’s intervention.

3.2.4 Resilient

The final rule of thumb is that a ‘systemic change’ is resilient. This means that the change will persist and adapt to new circumstances as the market and external environment alters.

For example, a programme may partner with an agri-business to sell improved agricultural inputs, such as seed and fertiliser, to smallholder farmers. This business model could be sustainable (because it does not rely on external assistance), and scalable (if the partner increases their investment and serves more customers). Over time, however, changing climatic conditions may mean that the original seeds and fertiliser are no longer appropriate, or a recession might bankrupt the original partner. This is consequently not a resilient change.

Resilience typically requires multiple, mutually reinforcing changes. To continue the above example, one agri-business alone is not sufficient. Multiple agri-businesses using different models, learning from each other, and experimenting with different approaches make for a much more resilient system. A broader network of research institutes and government agencies are required to develop new varieties of inputs, test them, and make them available to farmers. To cope with inevitable economic downturns, a resilient market also needs financial institutions who can offer loans and a regulatory environment which enables innovation.

A truly resilient market system is a lofty goal, and typically not achieved by one programme working alone. Each programme, however, can develop a vision of what a resilient market system might look like, and support multiple smaller changes that will contribute towards it.

Systemic change outside agriculture

Most of the examples in this guidance derive from agricultural projects. Agriculture is the most common specialisation for market systems development, provides the majority of case studies, and is what readers are most likely to be familiar with.⁹

The concepts, however, can apply to any market system. A project seeking to create systemic change in the housing market, for example, should start by defining their system, outlining the formal and informal rules governing the market, and the roles taken by market actors. The changes

⁸ [Davies \(2016\). Getting to scale: Lessons in reaching scale in private sector development programmes.](#)

⁹ [Conroy and Kessler \(2019\). The results achieved by programmes that use the market systems development approach. Beam Exchange.](#)

that they promote might differ in type; rather than working with agri-business, they might work with construction companies or housing associations. Rather than examining regulations around seed production, they might look at planning regulations or the ways in which slum-dwellers can input into policy. The principles remain the same; for a change to be systemic, it needs to be sustainable, scalable, and resilient.

3.3 Boundaries and lenses

Programmes are encouraged to think through two key concepts when assessing systemic change: setting **system boundaries** and viewing a system **through multiple lenses**.

System boundaries are important because systems are inter-connected. The profitability of vegetable farming in Ethiopia is influenced by the weather in Asia, oil production in the Middle East, and consumer habits in Europe. However, it is unrealistic for practitioners to map and understand all these relationships. Moreover, it would be impossible for a programme to detect any impact on such a broadly defined system. Consequently, it is essential for practitioners to set boundaries around the systems they aim to influence, shaped by the programme goal and what is achievable in the programme timeframe.

Viewing a system through multiple lenses is important because, as you look deeper into any system, you will always find more complexity. Most programmes have a 'sector strategy', which analyses the main system they are focused on and informs intervention design. For example, a sector strategy for the vegetable market in Ethiopia might identify inputs, logistics, and agronomics as key sub-sectors for improving the profitability of vegetable farming. Each of these sub-sectors can be considered a system in its own right – with its own actors, relationships, challenges, and opportunities. For example, the sector strategy might suggest that addressing logistical challenges could enable farmers to bring vegetables quickly to market and get a higher price. A deeper examination, however, shows that opportunities vary by crop (perhaps avocados need to travel rapidly to market, while potatoes can sit around for months) and region (areas near the capital city might experience higher demand and lower transportation costs). Understanding why logistics is not working is a challenging task and requires a further stage of analysis.

To manage this complexity, it is helpful to look at systems through multiple lenses. In the above example, the ultimate aim is to change the overall vegetable sector in Ethiopia – but that is too broad to allow for robust analysis. Instead, the programme can look at an aspect of the system in more depth, for example by conducting a detailed assessment of the logistics sub-sector. At the same time, it is important not to lose sight of the bigger picture changes that the programme aims to facilitate. A full assessment of systemic change requires practitioners to move between these different aspects of analysis.

An example of how to look through multiple lenses: the helicopter and intervention lens

The Pragmatic Approach distinguishes between the 'helicopter' and the 'intervention' lens. The helicopter lens is focused on big picture changes and looks at what is changing in the main system and the supporting systems that the program is targeting. It captures changes that are happening

for a variety of reasons, including changes caused by external factors and changes caused by expected and unexpected effects of single or multiple interventions.

The intervention lens follows the spread of a specific change introduced by an intervention, by tracking how intervention partners influence other system actors, by examining how far the change spreads and whether it sustains, and by assessing whether the change in the supporting system affects the main system and benefits the target group.

4 Using the DCED Standard to Assess Systemic Change

The DCED Standard includes two 'control points', which guide the development of an effective approach to assessing systemic change. Each control point is further split into compliance criteria, which are used during an audit to score the quality of the monitoring system. These control points are 'recommended' rather than 'mandatory', meaning that a programme can pass an audit even if they do not aim to achieve systemic change. If so, these control points will be marked 'not applicable'.

The Standard differentiates between assessing systemic change for 'market actors' and 'beneficiaries'. Market actors typically include any individual or organisation that is a permanent part of the market. This involves the government, community associations, and of course the private sector. 'Beneficiaries' typically refers to those who the programme is set up to benefit, such as producers or consumers living in poverty. This distinction is a simplification, as 'beneficiaries' are themselves market actors, but highlight differences in how changes are monitored and reported for each group.

This section provides further guidance for each control point and compliance criteria.

Defining Systemic Change During Audits

Section 3 outlined the difficulty of drawing a clear dividing line between what is and is not systemic change. During an audit of the DCED Standard, however, some dividing line is required, as the auditor must separately score the results measurement system for elements 1-3 (direct change), and element 4 (systemic change).

The distinction is drawn using the second rule of thumb, scalability. It is not sufficient for a change to be sustainable – in fact, the DCED Standard requires that all interventions consider sustainability, whether or not they aim at systemic change (see [control point 2.4](#)). Consequently, the auditor will check that changes claimed as 'systemic' have the potential to be scalable, either by the original intervention partner, or by other market actors. If so, it can be considered a 'systemic change'. In some cases, scalability might not be relevant – for example, a policy change may affect an entire country from the beginning, so have no potential for scale. If so, the auditor could accept this as systemic change but would expect justification from the programme.

Resilience, while important, is the hardest rule of thumb to achieve or assess. Consequently, auditors can accept definitions and assessments of systemic change that do not consider resilience.

4.1 Control Point 4.1: The programme has an overall plan for assessing systemic changes at programme level

Compliance Criteria: *The approach for assessing systemic change, and its effect on market actors and beneficiaries, exists.*

The first control point requires the programme to set out an overall plan for assessing systemic change. This is normally included in a programme monitoring and results measurement manual. For in-depth guidance on how to develop such a manual, [click here](#).¹⁰

The plan should describe the framework that the programme uses to define and analyse a ‘system’, such as that contained within the [M4P Operational Guide](#). It should then include a programme definition of systemic change, and outline how the programme expects to assess it. The assessment approach should include the programme’s methods for setting out a pathway to systemic change (see section 4.2.1 below), the overall approach to measurement, and how results will feed back into programme management and reporting.

This approach should be developed towards the beginning of a programme and would typically be revised as the programme refines its approach. This is the only control point that newer programmes would be scored on, because they would likely not have yet influenced any broader changes and so there would be no monitoring of systemic change for an auditor to check.

Incorporating boundaries and lenses into the plan

Section 3.4 introduced the importance of setting boundaries on a system and looking at systemic change through multiple lenses.

The DCED Standard does not require programmes to use these concepts, but it is recommended, and we find that programmes who ignore them often struggle to assess systemic change effectively.

Every programme sets boundaries on the systems they work in – whether explicitly or not. For example, most programmes have a geographic focus, a sectoral focus, or both. Without this, it would be impossible to even get started. We recommend that these boundaries are explicitly stated and considered in the programme documentation, such as a programme strategy or results measurement plan.

Similarly, almost all programmes work with different lenses – though not all are clear about their choice to do so. A programme can score full points in an audit by just looking at systemic changes caused by a single intervention. This will, however, miss the potential synergy between multiple interventions, and thus may also miss the potential for resilient change. Consequently, the DCED Standard recommends also looking at the bigger picture, by assessing changes at the sub-sector or sectoral level.

¹⁰ [Miehlbradt and Wanitphon, \(2015\). Developing a Programme-Specific RM Manual](#)

4.2 Control point 4.2: Systemic changes are assessed at market systems level and beneficiary level using appropriate methods

4.2.1 Outlining a pathway to systemic change

Compliance Criteria: *The pathway of expected systemic change at market actors level and/or at beneficiary level is outlined.*

The DCED Standard is based on a simple idea; before setting indicators or collecting data, it is essential to understand what you are trying to achieve, and how you are trying to achieve it. We refer to this as a ‘pathway of expected systemic change’. For example, the pathway might show how, by testing a new way of supplying financial services in rural areas, you might inspire other financial service providers to copy the idea and expand the service. Alternatively, the pathway might suggest that addressing a regulatory constraint to investment, alongside better investment advisory services, could encourage more investors to enter a market. Overall, the pathway should show the expected changes, specify the incentives that different market actors have to change behaviour, show how innovations and learning can be transferred from one market actor to another, and explain how programme interventions are expected to influence behaviours, relationships, incentives, rules, or capacities.¹¹

Articulating an explicit pathway to systemic change can improve programme management. Mapping out the linkages between programme activities and the expected systemic change clarifies the causal links, and the assumptions on which they rely. For example, programmes often expect pilots to be scaled up, assuming that there are sufficient players with the incentives and the capacity to do so. In practice, this is often not the case, so the programme may need to respond by providing information or additional support to encourage other market actors to scale up the pilot.

Moreover, articulating this pathway is a crucial step for results measurement. Market systems typically change slowly – often beyond the lifetime of the project. In order to manage interventions effectively, the programme needs to understand what changes are expected along the pathway within the lifetime of the programme and monitor those.

The idea of mapping out a pathway towards systemic change can be controversial. As outlined in section 3.1 above, the results of any intervention in a complex system are unpredictable. Any pathway is inevitably a simplification, and so can be misleading. For example, a trade facilitation programme may posit that a reduction in the time taken to cross a border-post will lead to an increase in traffic, as traders take advantage of this opportunity. In practice, they might find that any increase in traffic will in turn cause additional delays, increasing the time taken to cross a border-post again.¹²

Nonetheless, some simplification is generally needed. When faced with the challenge of working in complex systems, we need a way to produce an actionable hypothesis; the key is to adapt it in the light of experience. Consequently, the pathway should be continually revised in response to the programme’s learning and new experience. How the pathway is used and updated is far more important than the exact format of the initial pathway.

¹¹ [Miehlbradt, A and Posthumus, P. \(2018\). Assessing Systemic Change. DCED](#)

¹² [Ramalingam, B; Laric, M & Primrose, J. \(2014\). From Best Practice to Best Fit: Understanding and navigating wicked problems in international development. ODI working paper.](#)

There are two commonly used tools for mapping out a pathway. The first is to use [results chains](#) to show how an intervention is expected to influence the broader system. Each intervention results chain has additional boxes added, to show the expected broader changes from the intervention. Figure 1 below shows a simplified example. On the left, in blue, is a shortened version of an intervention results chain, showing how support to a business is expected to increase smallholder farmer income.¹³ The middle column, in orange, shows the incentives for the business to continue the model. On the right hand side, in green, the results chain shows the expected expansion of the business model, as it is copied by other market actors, benefitting more smallholder farmers. The arrows show how the success of the original business model, through a demonstration effect, is expected to lead to systemic change. Note that, even in the systemic change phase, there may still be a role for the programme in providing information and facilitating change.



Figure 1 - Results Chain with Systemic Change

A summary results chain, often referred to as a market/sector/system results chain, shows how the different interventions come together to create transformative change. Examples and guidance are provided in the [Pragmatic Approach](#).

The second commonly used tool is the [Adopt-Adapt-Expand-Respond \(AAER\) framework](#), developed by Springfield Centre. It focuses on four aspects of change in the market: initial piloting of an innovation (adopt), investment in this new innovation by the partner (adapt), adoption of and investment in the innovation by others (expand) and adjustment to the new practice by others in the market (respond).¹⁴

Results chains and the AAER framework can be used together. For example the AAER framework might be used to help a programme think about which aspects of the pathway to systemic change need to be mapped with a results chain.

The AAER Framework and systemic change – a note on audits

If a programme using the AAER framework requests an audit, an auditor would assess the measurement of systemic change for expand and respond only. This is because ‘adopt’ and ‘adapt’

¹³ Note that this example is considerably less detailed than the DCED Standard requires. See the [DCED Guide to Results Chains](#) for more details.

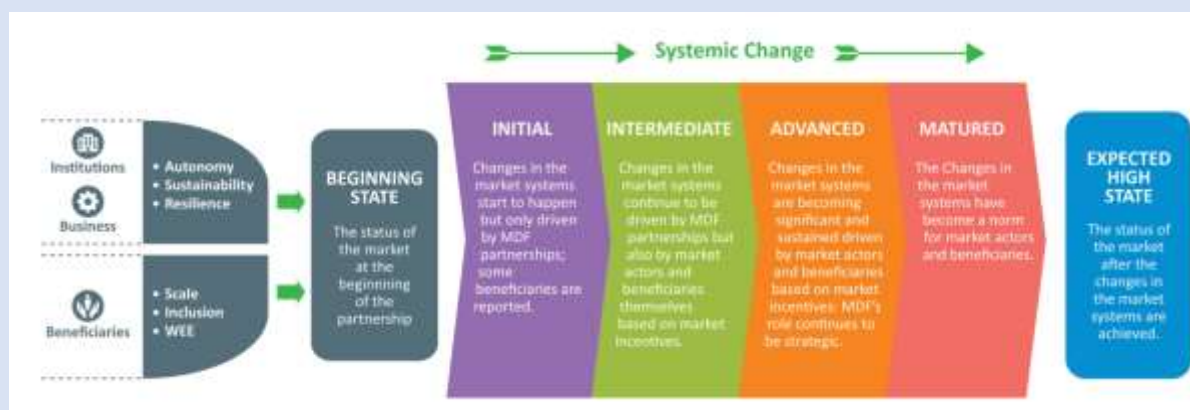
¹⁴ [Nippard, D; Hitchins, R & Elliott, D. \(2014\). Adopt-Adapt-Expand-Respond: a framework for managing and measuring systemic change processes. Springfield Centre.](#)

are considered direct changes, assessed under elements 1-3 of the Standard. Consequently, if the programme has assessed adopt/adapt but not expand/respond, they would not be scored under the element of the Standard related to systemic change.

Alternative frameworks in use

While AAER and results chains are the most common frameworks in use for articulating a pathway to systemic change among programmes using the DCED Standard, they are not the only ones.

For example, the [Market Development Facility](#) promotes sustainable economic development, through higher incomes for women and men, in five countries across the Asia-Pacific. Their pathway is shown below.



As can be seen, the systemic change pathway distinguishes between four stages of systemic change:

- **Initial:** Changes in the market system have started but are driven by MDF partnerships.
- **Intermediate:** Changes in the market system are driven both by MDF partnerships and by market actors and beneficiaries.
- **Advanced:** Changes in the market system are becoming significant and sustained, driven by market actors and beneficiaries.
- **Mature:** Changes in the market system have become a norm for market actors and beneficiaries.

Moreover, the framework distinguishes between the actor involved in systemic change (institutions/businesses and beneficiaries), and six parameters of systemic change - autonomy, sustainability, resilience, scale, inclusiveness, and women's economic empowerment. MDF and programmes using a similar framework track systemic change using a [rubric](#), showing what change is expected for each parameter at the four different stages. More information is available in MDF's case study, available [here](#).¹⁵ MDF has been audited for their use of the Standard, and audit reports

¹⁵ [Jalil, S and Bekkers, H. \(2015\), Achieving Changes in Markets: The MDF Framework for Defining and Populating Pathways for Systemic Change.](#)

are [available here](#). Since the framework considers sustainability, scalability and resilience, they are suitable for any programme that wishes to use the DCED Standard.

The framework has been further adapted by PRISMA, the [Australia-Indonesia Partnership for Promoting Rural Incomes through Support for Markets in Agriculture](#). Their framework, documented through their [measurement manual](#), uses the same four stages as MDF, providing more information on the 'Systemic Change Progress' rubric used for assessment. (See annex entitled 'Systemic Change Progress (SCP) -Curve').

4.2.2 Assessing systemic change for market actors

Compliance Criteria:

- *A plan for assessing expected systemic change at the market actors level exists.*
- *Plans to collect, analyse and assess expected systemic change at market actors level are appropriate (considering the context and expected systemic change) and in accordance with good research practices.*
- *Expected systemic change at market actors level is assessed using good research practices, and takes attribution into account.*

The DCED Standard requires programmes to have a plan for monitoring systemic change, to collect data using appropriate methods, and to take attribution into account.

This sounds straightforward, but opinions differ on when a plan should be developed, what 'appropriate' methods are, and how rigorous attribution methods should be. We provide some initial guidance and links to further reading in this section.

4.2.2.1 Monitoring plans

The DCED Standard has developed clear guidance for developing monitoring plans for programme interventions. See the guidance notes on [indicators](#) and [measurement](#), and the [toolkit for implementing the Standard](#).

Similar principles apply to assessment of systemic change. Since the pathway outlines what changes you expect to see, the monitoring plan should say what indicators might be used to assess these changes. It should define measurement methods, responsibilities, and timeframes for conducting measurement.

Recognising the unpredictability of systemic change, it is also important that the monitoring plan is open and flexible enough to pick up unexpected results. As systemic changes are often observed later in the programme, it is often not necessary for a detailed plan to be made at the beginning, which can entail a lot of paperwork without much concrete action. At this stage, it is sufficient for a programme to follow the guidance listed above under control point 4.1, developing an overall plan for assessing systemic change. During an audit, if the programme can justify the lack of a detailed plan because systemic change is not expected in the short term, then this compliance criteria would be marked 'not applicable', and no points deducted.

Once monitoring data or information from field visits suggest that systemic changes are likely to occur, then a programme should develop a more detailed monitoring plan. While there is no universal principle for when this is expected to happen, a good rule of thumb is that a programme should have a detailed monitoring plan before collecting and publicly reporting any information on systemic change. This detailed monitoring plan should include indicators showing whether the systemic change has happened, define respondents who could provide information on it, and guide how monitoring would happen. Examples of monitoring plans for systemic changes are given in the [Pragmatic Approach](#).

A programme that uses the AAER framework (described above) might set indicators for each category of the framework. Some examples are given in [Annex 1](#). For a more complete list of examples, see the Springfield briefing paper: ‘Adopt-Adapt-Expand-Respond: a framework for managing and measuring systemic change processes’¹⁶ and *Making Sense of ‘Messiness’*, a case study of Samarth-NMDP.¹⁷

Tips on monitoring systemic change

Successful monitoring systemic change is often not just about a formal plan, but the mindset and behaviour of team members. Information on systemic change typically comes from the implementation team, who have relationships and are in regular contact with market actors, not just measurement specialists. Consider the following tips (based on this [Practitioners Note](#)):

- **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. (Full example provided in the [Practitioners Note](#)).
- **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. Identify and regularly consult key informants who know what’s going on and are willing to share their information.
- **Follow-up on any signs of systemic change.** If the team report an indication that systemic change might have occurred, the monitoring team should follow-up with calls or a field visit to verify and document it.

4.2.2.2 Conducting research

The DCED Standard requires users to assess changes for market actors using **good research practices**.

This does not mean that the DCED Standard expects programmes to conduct large surveys, use quantitative methods such as randomised control trials or quasi-experimental designs, or meet standards often used in academic research. While we welcome experimentation with these approaches, they are often not appropriate and go far beyond the minimum required for the Standard, which is designed to be implemented by programme teams rather than research specialists.

¹⁶ [Nippard, D; Hitchins, R & Elliott, D. \(2014\). Adopt-Adapt-Expand-Respond: a framework for managing and measuring systemic change processes. Springfield Centre.](#)

¹⁷ [Ripley & Nippard. \(2014\). Making Sense of ‘Messiness’. Samarth-NMDP/Springfield Centre.](#)

Instead, an ‘appropriate’ method is one that can provide useful, rapid information on changes in market actors. At a minimum, this is likely to involve a series of well-conducted key informant interviews with different stakeholders in a market system, to get their perspective on the changes that are taking place and the reasons for these changes. These interviews would preferably be done using programme staff rather than external researchers, to ensure that the learnings are captured internally. Information should be triangulated from multiple sources. This means that practitioners should not rely on just one source of information, but look for confirming or contradictory information from other sources. This will include stakeholder feedback, as above, but could also include newspaper and magazine reports, country and market statistics, and other secondary data.

The Standard requires programmes to be flexible and adaptive in their measurement approach. For example, if an intervention manager sees a promising sign of systemic change – such as a new investment taking place – then they or the monitoring team should be able to interview relevant stakeholders and verify whether the change happened or not.

Systemic change and long-term monitoring

The only way to prove that a change is sustainable and resilient is to wait until programme activities have stopped and see whether the change continues.

Some evaluations have attempted to do this. For example, the Enter Growth Programme, implemented by the ILO and funded by the Swedish International Development Cooperation Agency (Sida) was evaluated ten years after it closed, assessing the extent to which it had contributed to sustainable market changes.¹⁸

We welcome these efforts and believe more investment is needed in long-term evaluation. However, they are out of reach for the majority of programmes, which are constrained by their timeframe and budget. Consequently, the DCED Standard does not require evaluation after the end of the programme. Instead, it expects programmes to think about what signs of systemic change might be observed during their timeframe, and to monitor those carefully.

A critical requirement of the DCED Standard is that research methods are documented and justified. Compromises are commonly made for the sake of budget, time, or practicality – but these must be recognised, thought about, and justified. An auditor will expect a programme to either document the reasons behind their choices, or to be able to explain them during an interview. As above, if systemic change is not happening, there is no expectation on programmes to do any research into it. In this situation, this compliance criteria would be marked ‘not applicable’ and programmes would not lose any points during an audit.

¹⁸ [Barlow, S. Shah, R. \(2020\). The Enter-Growth Programme: A Decade On. Springfield Centre.](#)

Additional methods¹⁹

Several monitoring techniques are commonly used to capture systemic change. For example:

- **Outcome Harvesting.** Outcome Harvesting starts by collecting evidence of what has changed (“outcomes”) and then, working backwards, determines whether and how an intervention has contributed to these changes.
- **Most Significant Change.** Most Significant Change is an approach involving the generation and analysis of personal accounts of change. A structured process is used to decide which of these accounts is the most significant, and why.

These approaches differ from the method described above in that users do not come with a pre-conceived theory about what might happen. Instead, they try to work out what has changed and then seek to understand what led to these changes.

This is a valuable way of capturing unintended impact, which is one of the requirements of the DCED Standard. The guidance and structure of the interviews can also help improve the robustness and depth of qualitative data collection.

They come with disadvantages, however. First, there is nothing inherent in the methodology that targets systemic change. By not using a definition of a system, or a pathway showing how the programme is expected to influence it, they risk missing the primary changes that programmes wish to facilitate. Second, they face practical challenges, as some respondents may not know about the programme, and so may not be able to meaningfully answer questions about impact. For example, asking about outcomes can give very broad answers, unless the question is carefully refined – but refining the question requires an implicit results chain.

No single method is universally appropriate for assessing systemic change. We encourage users to use these, and others, while recognising, documenting and compensating for areas of methodological strength and weakness.

4.2.2.3 Attribution

Wherever a programme is implemented, many changes will occur over time. Some of these changes may be unrelated to the programme and would have happened regardless of whether the programme existed. Other changes occur as a result of the programme’s activities. The DCED Standard expects programmes to try to distinguish these two situations in the reporting of results. It is not enough to report what has changed, but essential to also show why it changed, what difference the intervention made, and how it made this difference.

In some cases, it is possible to quantify the difference made by the programme, and the difference made by other factors. This is often referred to as **attribution**. For example, a programme might find that incomes for farmers rose by \$100 over the course of the intervention, of which \$50 was due to the specific changes that the programme supported (e.g. using improved agricultural inputs), and \$50

¹⁹ For more information on these methods, see [Better Evaluation](#). For a broader discussion of different methods in measuring systems changes, see [Fowler and Sparkman \(2016\), Testing Tools for Assessing Systemic Change](#), and [Agora Global \(2020\), Research Methods for Systemic Change Programmes](#)

to other factors (such as the weather conditions, or overall economic growth in the country). Assessing attribution is an important way to demonstrate programme impact, and the DCED Standard expects programmes to assess it where possible.

Systemic change, however, is particularly difficult to attribute. Markets are constantly changing, and it is challenging to distinguish cause and effect. Some techniques used to attribute direct impact involve control groups, which are generally not feasible when trying to assess systemic changes. Consequently, it is generally more helpful to speak about a programme's **contribution** to systemic change.

Speaking of 'contribution' does mean that the programme can claim responsibility for any market changes. It does, however, recognise that efforts to quantitatively separate the programme contribution from that of others are often meaningless. It seldom makes sense to claim that 50% of a systemic change is attributable to a programme. Consequently, the programme should provide a qualitative narrative explaining how it contributed, and what other factors were important. It is important to be nuanced and transparent about the level of contribution that the programme believes it can claim.

There are four key considerations which help assess the level of programme contribution.

Firstly, the development of a clear pathway which describes how the programme expects to change this market system. This should have clear, plausible, causal links between different steps in the pathway.

Secondly, evidence that expected changes have occurred at different levels in the pathway. For example, if one of the expected changes is for vets to crowd in and provide additional services to rural farmers, then the programme would need to assess whether this is happening or not.

Thirdly, evidence of causal links between the changes in the pathway. For example, if the causal pathway posits that an initial pilot and programme dissemination activities led to more businesses taking up the business model, then they should be able to explain how the new businesses learnt about the business model, trace a link from the dissemination activities, and show similarities between the different business models. The programme can also consider timing; did the dissemination precede the change, or follow it? If the latter, a causal linkage is less likely.

This will require qualitative information from relevant market players to better understand the process of change and various influences on it. It is essential to gather high quality qualitative information from a variety of sources, comparing different answers to try and get as complete picture of the market change as possible.

Finally, an assessment of alternative possible causes of the observed changes. Markets and other systems are always changing, for a wide range of reasons. If the programme observes a change, they should look for alternative reasons why it might have occurred. This might include other government or civil society initiatives, innovation from the private sector, changes in the business environment or even the weather. By considering the various possible reasons for the observed changes, the programme can strengthen their claim to have had some influence.

An understanding of alternative causes also requires qualitative information and an open, investigative approach. If team members are seeking to demonstrate their impact, they may be biased towards dismissing alternative explanations of changes, beyond their programme activities. Instead, team members should be trying to understand why change happens, accepting that any significant change is likely to have multiple causes.

4.2.3 Assessing systemic change for beneficiaries

Compliance criteria:

- *A plan for assessing and estimating the effect of expected systemic change on beneficiaries exists.*
- *Plans to collect, analyse and assess expected systemic change and effect at beneficiary level are appropriate (considering the context and expected systemic change) and in accordance with good research practices.*
- *Results of expected systemic change on beneficiaries are assessed using good research practices, and take attribution into account*

Measuring the impact of systemic changes on the programme's target group is critical. It can be, however, extremely challenging. For example, a programme may wish to know whether the introduction of a new agricultural technology results in an increase in incomes for smallholder farmers. If this technology is taken up widely by the market, it could be implemented by different firms with no connection to the programme, working in different areas in varying ways. The diversity, scale, and unpredictability of the market response can make a meaningful assessment of impact difficult.

Some programmes have addressed this challenge head-on, conducting quantitative research to demonstrate the impact of systemic change on the programme's target groups. As a starting point, programmes may be able to quantify the numbers of the target group reached through systemic changes. For example, the guidance followed in section 4.2.2 above can show the number of market actors who changed their behaviour due to the programme intervention. Collecting data from these market actors on how many customers they have, or how many producers they source from, will indicate how many of the target group might benefit.

While market actors can be reluctant to share this information, good relationships with the programme, a clear understanding of confidentiality and the purpose of sharing information, and the use of approximate questions (e.g. asking about market share instead of revenue) can help. It may also be possible to quantify the benefits from systemic change, through conducting surveys with individuals who were in contact with these companies, or who used some of the practices introduced through the original pilot.

Growth and Employment in States (GEMS) case study on systemic change

The GEMS 1 programme in Nigeria quantified the effect of systemic changes on beneficiaries, based on the introduction of a new model of feed fattening for livestock farmers in Northern Nigeria. They conducted the following data-gathering exercises:

- 2013 – 2015: Investigative research to find whether other companies started to offer feed supplements, and to speak with them to understand the reasons for this and the scale.
- 2013 – 2015: Impact assessments with farmers who participated in the pilot, asking them for information and contact details of other farmers who copied new farming practices. Total sample size was 270.
- 2014 – 2015: Interviews with ‘copy farmers’ who copied farming practices, and a comparison group. Total sample size was 105.

More information and learning is contained in the [full case study](#).²⁰ Note that this level of quantitative research, while commended, is more than the minimum required to pass an audit.

If a programme chooses to quantify the impact of systemic change on beneficiaries, they should treat it like any other data gathering exercise, developing a measurement plan and appropriate measurement methods. They should be aware that quantitative methods alone, no matter how sophisticated, are insufficient – it is important to also incorporate qualitative methods. During an audit, the auditor would review the robustness of the plans when scoring the programme. The auditor would take into account the particular challenges of assessing systemic change, potentially accepting a smaller sample size, less rigorous attribution methods, or greater emphasis on qualitative information than might otherwise be the case.

This level of quantitative assessment, however, is beyond the reach of many programmes. At a minimum, all programmes should collect qualitative information on the expected and actual impact of systemic change for their target group. They should ensure that the reporting matches the data collection. Programmes that only collect qualitative information but report unsubstantiated quantitative results can expect to be penalised during an audit.

Programmes must ensure that they speak to as many indirect beneficiaries of their interventions as possible, and follow usual good practices in conducting qualitative research; asking in-depth, probing questions to a range of respondents, speaking to individuals or small groups in private, and avoid the conversation being dominated by a small number of voices.

To report the impact of systemic changes on the people living in poverty, programmes often extrapolate from the assessments conducted during the earlier stages of an intervention, as ‘direct’ benefits are easier to observe and measure. For example, they may have established the direct impact

²⁰ [Sen, N and Hafiz, W. \(2015\). Measuring Systemic Change – The case of GEMS1 in Nigeria. DCED](#)

of access to a new technology as \$100 per farmer during the pilot, and then scale this up according to the estimated number of farmers reached by other firms in the wider market.

Programmes which seek to report this impact should ensure that assumptions are made cautiously and documented. The assumption that direct beneficiaries benefit to the same extent as indirect beneficiaries will need additional validation. In the above example, agricultural technologies are likely to have different benefits in different regions, according to how companies implement them, weather patterns, soil fertility, and so on. Consequently, programmes will need to conduct a small survey or qualitative interviews with indirect beneficiaries. The aim of this exercise is not necessarily to provide robust quantitative data, but to sense-check that direct benefits are still applicable.

As with other control points, this is only relevant for an audit once a programme is sufficiently advanced to be expecting (or reporting) impacts of systemic change on the target group. If it is not at that stage yet, an auditor would mark this control point 'not applicable', and no points would be lost.

5 Conclusion

Systemic change is at the core of effective development, offering the potential to create jobs, provide access to essential goods and services, and support livelihoods at scale.

Defining and assessing changes in systems is and has always been challenging. The DCED Standard provides three rules of thumbs to help identify 'systemic' changes. The first is that systemic changes should be sustainable in the long run, enduring past the end of the programme. The second is that systemic changes should be scalable, reaching many more people than in the original pilot. The third is that systemic changes should be resilient, adapting to new market conditions and circumstances. Where a clear dividing line must be drawn between what is and is not systemic, such as during a DCED Audit, the auditor will emphasise the second rule of thumb, looking to see if the programme is monitoring changes beyond their initial partners.

The DCED Standard emphasises the importance of developing a pathway to show what results you expect to achieve, and how you expect to achieve them. It advocates the use of 'results chains', showing how activities are expected to lead to outputs, outcomes and impact. Results chains are harder to apply to systemic changes, as causal chains are longer and relationships between cause and effect more complex. Despite the challenges, some form of pathway is still an essential pre-condition for good management and measurement, as it enables practitioners to set out the changes they expect to see and assess progress towards them. Some programmes use results chains, others use the Adopt-Adapt-Expand-Respond framework, some combine them, and many are experimenting with new frameworks for articulating pathways to systemic change.

Assessing systemic change is simultaneously challenging and straightforward. It is challenging because of the level of scale and abstraction; it is easy to measure how many livestock a farmer owns, but much harder to assess anything as nebulous as a system. The tools, concepts and jargon that have been developed to assess systemic change can be overwhelming.

It becomes more straightforward, however, once you realise that there is no single tool that will solve the issue. Good assessments of systemic change rely on the same basics as any results measurement. Gather qualitative and quantitative data to address a research question, recognising that data

limitations in many contexts often require a high reliance on qualitative interviews to fill data gaps. Triangulate information from multiple sources and conduct small rapid assessments, rather than investing the whole results measurement budget in a single survey. Ask why change is or is not happening, and continually look out for new pieces of information that can confirm or refute a systemic change narrative. With these fundamentals of good results measurement in place, and the curiosity and openness to understand what results have or have not been achieved, any programme can assess systemic change.

6 Annex 1: Indicators of Adopt, Adapt, Expand and Respond

Stage	Indicators
Adopt	<ul style="list-style-type: none"> ● <i>Extent of benefit to partner firm:</i> <ul style="list-style-type: none"> ○ Changes in costs, revenues, and/or margins. ○ Number of first-time/repeat customers. ○ Other commercial benefits (developing a new customer base, identifying and targeting a new market segment, brand recognition, etc) ● <i>Partner buy-in:</i> <ul style="list-style-type: none"> ○ Partner's share of financial and non-financial (e.g. roles, division of labour) costs of pilot; ○ Partner's willingness to assume all recurrent costs by pilot end. ○ Location of driving force for innovation within the company (e.g. CSR department, senior management, etc.) ● <i>Satisfaction:</i> <ul style="list-style-type: none"> ○ Partner's satisfaction with results/utilisation of learning from pilot; ○ Target group's satisfaction with (and benefits derived from) new/better product or service introduced
Adapt	<ul style="list-style-type: none"> ● <i>Independent investments and improvements:</i> <ul style="list-style-type: none"> ○ Partner's financial investment and forward budgeting/planning in the change(s) after programme support ends; ○ Experimentation / refinement / tailoring of product/service; ○ Partner 'roll-out' of piloting in new areas and/or markets. ● <i>Mainstreaming of innovation within market player:</i> <ul style="list-style-type: none"> ○ Partner dedicates staff to upholding change (e.g. amends job descriptions, team responsibilities); ○ Budgets, business plans, strategy, and other institutional documents accommodate change adopted. ● <i>Benefit flows to the poor are sustained:</i> Target group continues to benefit after programme support to the partner ends.
Expand	<ul style="list-style-type: none"> ● <i>Competitors or similar organisations 'crowd-in':</i> <ul style="list-style-type: none"> ○ Commercial players – number of competitors that copy or improve upon the changes pilot phase partners have made. (% of total in market) ○ Involvement of 'scale agents' (a player that can influence other players) ● <i>Competition or collaboration in the system (depends on their nature):</i> <ul style="list-style-type: none"> ○ Level of competition ○ Extent to which new players (i.e. late adopters) face barriers 'to entry'. ○ Level of collaboration between players (e.g. effectiveness of representative organisations, joint ventures, adherence to rules/regulations etc).
Respond	<ul style="list-style-type: none"> ● <i>Market reaction:</i> <ul style="list-style-type: none"> ○ New types of market player take on new roles or responsibilities, or add new functions as a reaction to the gradual mainstreaming of the model introduced. ○ Pro-poor and pro-growth government and sector/industry body responses. ○ Change in attitudes and norms about how to do business. ● <i>Changes in the business environment:</i>

	<ul style="list-style-type: none"> ○ Fundamental changes in mindset from business and policy-makers. ○ Changes in regulations, rules, and policy related to the innovation. ● <i>Ability of system to cope with shocks</i>: Evidence that change can withstand, or has withstood adverse events (e.g. negative responses, economic downturns, drought/flood)
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