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DISCUSSION PAPER

Monitoring, Evaluation and Learning for Systems Change

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01 Context: Complex change needs dynamic learning

Today's critical challenges are complex and require system level change. Issues like ending poverty, reversing biodiversity collapse, creating more equitable and sustainable food systems, or ending health inequalities, will not respond to neat siloed technical interventions. These are not problems we can tackle head on. Rather, we need to change the conditions (systems) that create these problems. Consequently, many of the most ambitious philanthropic foundations are adopting 'systems change' approaches to their work.

There is a critical need to better understand the impact of systems change interventions. This is for two reasons: 1) without being able to understand our impact we can't learn about the efficacy of efforts and focus on doing more helpful action and less unhelpful action, and 2) without effective monitoring and evaluation it is hard to galvanise resources, whether as money, time, or enthusiasm.

Traditional monitoring, evaluation and learning (MEL) approaches and practices struggle to respond to complexity. Many of today's MEL approaches have been developed to serve funders keen to 'prove' the efficacy of their work and hold grantees accountable. This paradigm has produced approaches like 'logical frameworks' that seek to create a linear logic between intervention, outputs, outcomes and impact. Such approaches often pay scant regard to the activity (intentional or otherwise) of other actors in any system, and don't adapt well to the characteristics of complex problems such as emergence, uncertainty, and interdependency.

There is a fast-developing body of practice on MEL for systems change. A growing number of practitioners are experimenting with complexity informed approaches to MEL, and UNDP is pioneering an open-source set of tools and ideas.[1] Wasafiri is contributing to this innovation by developing a MEL approach that builds on our (open access) Systemcraft Framework.[2]

Emerging approaches for systems change MEL are underpinned by some key principles. There is growing consensus on the need to be pragmatic and flexible, not just because it is a new field for many that requires a degree of behaviour change and different ways of working. MEL approaches for system change primarily focus on improving and learning and on identifying ways to adapt and pivot. This contrasts with linear approaches to implementation and measurement. Learning questions guide and co-exist alongside indicators to support continual learning and adaptation.

Wasafiri's approach for systems MEL builds on Systemcraft. This is a diagnostic and design tool for systems change, that has been used globally across a broad range of systems and interventions. This paper is a working draft of our approach to MEL for systems change and forms a short 'conversation starter' to initiate a dialogue on current practices, experiences, and learnings with MEL for systems change. It introduces some appropriate tools for measuring systems change and poses some key questions for further discussion. We aim to engage with practitioners working on complex problems who are in the process of or planning to develop their approach to and practices for MEL, who are interested to learn, share and explore. We welcome your inputs, either in response to this document, via a call, or during online webinars that we will convene in 2025.

02 Systems MEL: Flexible and learning-led

Systems MEL uses many traditional tools; but often uses them in different ways and with different objectives. Learning about the ways systems are changing is not determined by the data collection tools we use but by the things we pay attention to, the questions we ask, how and when, and who we want the learning to serve. There are a number of core principles that underpin systems MEL approaches:

SERVE THE PROBLEM	Traditional MEL is often predominantly designed to serve those who pay (financially) for a project or programme. This can make them extractive in nature, focused on holding partners accountable and produce learning in forms that are either private or difficult to access. In contrast, MEL orientated to systems change should be useful to a wide audience of people, both those who live with, and those who work on the issue. It should help people better understand, what is

[1] Systems Monitoring Learning & Evaluation (SMLE), 2024, Our Resources, Dive deeper into Systems Monitoring, Learning and Evaluation, available at this link (accessed August 2024)
[2] Systemcraft was developed by Wasafiri and is a diagnostic and design approach for systems change. It is published under creative commons and can be accessed at this link.

going on, how change is happening and where and why efforts are getting stuck.

START AT THE BEGINNING

Traditional MEL approaches are often structured around specific reporting milestones, evaluations tend to happen upon completion of program activities, and M&E Managers may operate in isolation from strategy and implementation. One of the key objectives of systems MEL is to produce data and learnings that support real-time decision making. To achieve this, we need a close and ongoing relationship between strategy, learning and implementation roles and responsibilities.

PAY ATTENTION BEYOND A SINGLE INTERVENTION

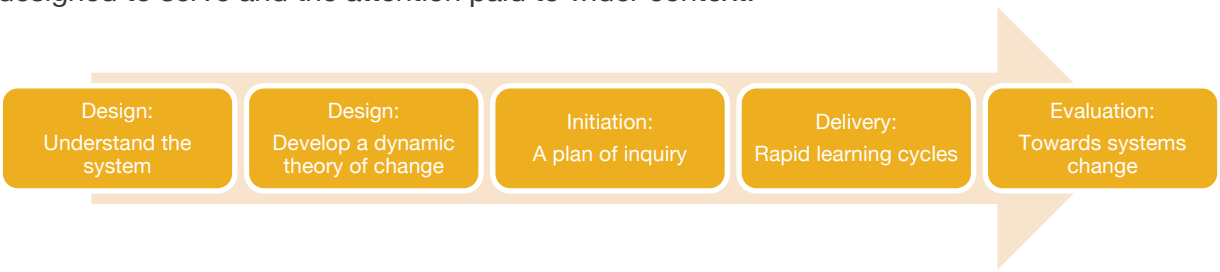
Traditional MEL is often focused on trying to isolate and measure the (expected) impact of a single project or intervention. But when an intervention environment is complex, it means straight forward cause and effect relationships are uncommon. Systems change is never the result of a single intervention by a single actor. Therefore, systems MEL looks at the context beyond the parameters, trying to capture what is emerging with a focus on both expected and unexpected changes as well as looking at specific interventions and the wider systems context.

REDUCE ASYMMETRIES OF INFORMATION

Systems that are working poorly for some and well for others typically have strong asymmetries of information. The most marginalised often have the least access to knowledge about the issues that affect them the most. A MEL approach that compares the efficacy of early flood warning systems across several communities may share that information with the providers or funders of those systems but not necessarily the affected communities. If they had access to that insight, the communities may be able to make their own adjustments to how they use and engage with the early warning systems available to them. Systems MEL holds an open mind as to who is a producer and who is a consumer of learning, and therefore intentionally puts learning back into the systems in ways that address rather than exacerbate asymmetries.

03 Developing a systems MEL framework

The following sections of this paper are structured around key steps critical for a systems MEL framework. Many resemble a 'typical process' for developing and implementing a MEL framework, yet there are key differences in terms of who learning is designed to serve and the attention paid to wider context.



04 Design phase: Understand the system

Complex problems can only be understood from multiple perspectives. Most change programmes and associated MEL will include some form of diagnostic phase. For an intervention that aims to achieve system level change it is critical that this phase is built on *multiple* stakeholder perspectives. This is because complex problems are experienced and understood differently by different groups. And so there will be varied, and potentially contradictory perspectives on the nature, causes, solutions and desired outcomes. For example, when tackling child mortality, a health-based NGO or business sees the need for better clinics, or an immunisation programme. Education organisations focus on female literacy, and a farming co-operative wants fortified seeds to improve nutrition. All maybe good ideas; all are part of the solution; none are likely to change the systemic causes of child mortality alone.

A range of existing tools can be used including:

- Systems mapping: Multiple tools exist for this. All share the principles of generating a shared view across stakeholders; exploring relationships not just parts; and including multiple perspectives.[3]
- Problem statements help evidence the current state of the system(s) we want to influence.[4]
- Root cause analysis, creating problem trees and documenting data sources which evidence the problem (internal or external).
- Stakeholder analysis tools at design stage will help evidence positive and negative influences.[5]

Understand incentives. A key principle of systems thinking is that the system is always working (for some people in some ways at least some of the time). Understanding what 'holds' the system in its current state is critical. Political economy analysis is a tool which can deepen the stakeholder analysis and help understand appropriate entry points and ways of working.[6]

Identify windows of opportunity for change. Systems are dynamic so change requires multiple interventions targeting multiple parts of a system. At the design phase it is critical to pay attention to the wider operating environment. This may include interventions led by other actors as well as wider political, social, economic forces that shape the context in which you

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[3] **Systems mapping** is the creation of visual depictions of a system, such as its relationships and feedback loops, actors and trends. Multiple systems mapping methods and tools exist. An introductory overview with different ones can be found here – The Open University, Systems Maps

[4] A **problem statement** is a simple paragraph summarising the problems we seek to address. **Problem trees** help clarify the challenges we currently see and how the drivers of problems are interconnected. A template for problem trees can be found here - Problem Tree Template | Miro, a description of problem analysis can be found here - Planning tools: Problem Tree Analysis | ODI: Think change. **Root cause analysis** allows us to dig deeper into the causes of problems and helps us design interventions which tackle root causes. Some templates for this tool can be found here Nesta Problem tree, Root_Cause_Analysis_Template_fish bone.docx

[5] **Stakeholder analysis** helps us understand all the actors in a system – their incentives, their influence and power. A template and description of this analysis can be found here - Stakeholder Analysis

[6] **Political Economy Analysis** helps us explore how power and resources are distributed and contested in different contexts. It exposes underlying interests, incentives and institutions that enable or constrain change. Further reading here - Political Economy Analysis

are designing an intervention. A system MEL approach must include attention to the ways in which the operating environment is changing.

05 Design Phase: Develop a dynamic theory of change

A theory of change[7] **illustrates the desired impact and how and why we think change will happen.** Assumptions should be made explicit and change pathways that target underlying conditions established. Systemic level change is unlikely to be achieved by any single actor. Therefore your systemic impact goals are unlikely to be within your gift and so part of a systems orientated theory of change is to identify your organisation's contributions to wider, shared goals.

A theory of change aligns goals. It creates milestones and '*North Star*' ambitions that can be shared by multiple stakeholders and actors.

A theory of change should adapt during implementation. Any process of working on a system reveals more about how that system works and so a theory of change should be updated to reflect learnings. Review should happen at least annually, and whenever there is new evidence or shifts in context affecting assumptions or hypothesized pathways of change.

06 Initiation phase: Create a plan of inquiry

A theory of change informs the development of a MEL system. Commonly this means identifying which indicators[8] are useful at output, outcome, and intermediate outcome stages; and understanding where and how you might source credible data. As part of a systems MEL approach, particular attention should be paid to identifying indicators that signal systemic changes and understanding.

Keep the number of indicators manageable. Seek a set of indicators which show 'early shoots' of change in the first few years and then build up towards evidence of longer-term change. Sentinel indicators are proxy indicators that can alert us that a change is happening as opposed to measuring a final result.[9]

Systems informed learning questions should complement the MEL system. They build on the ToC and, in addition to the indicators, it is helpful to identify key (learning) questions that will help better understand the complex system that is being transformed or validate assumptions.

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[7] A **theory of change** articulates how we think change happens and sets out any assumptions we're making. Guidance can be found here - Nesta Theory of Change.pdf, Develop theory of change / programme theory - Rainbow Framework (betterevaluation.org)

[8] **Indicators** help evidence how change is happening (or not). Further reading here - Setting Objectives and Indicators

[9] **Sentinel Indicators** are a specific type of indicator which are used in complex systems. Further reading here - A Guide to Complexity-Aware Monitoring Approaches | USAID Learning Lab

Sentinel indicator in the context of food systems change in Kenya
Kenya's agriculture is highly vulnerable to climate change. The rate of adoption of climate-resilient agricultural practices is a potential sentinel for system level change in food production practices. Monitoring the adoption rate of practices like drought-resistant crops, water-efficient irrigation, and in agroforestry can provide early signals of how well the food production system is adapting to climate challenges. An increase in adoption rates can indicate a positive shift towards more sustainable and resilient food systems. This indicator can also reflect the effectiveness of policies and programs aimed at promoting sustainable agriculture. For instance, if a new policy is introduced to subsidize drought-resistant seeds, a subsequent increase in their adoption would signal the policy's success.

07 Delivery phase: Conduct rapid learning cycles

Programming to influence a system involves working with unknowns. If we knew what worked, someone is likely to have already done it. 'Unknowns' means that the MEL structures need to be highly flexible, picking up lots of different types of information and reviewing this regularly through formal and informal learning processes.

Break action into a series of monitoring and learning cycles. This creates an iterative loop of design, plan, deliver, feedback. It gives opportunity for change, re-adjustments, and learning. Gathering monitoring and learning information in these cycles (see figure below) will build a body of evidence about how a programme is adjusting as the system changes.

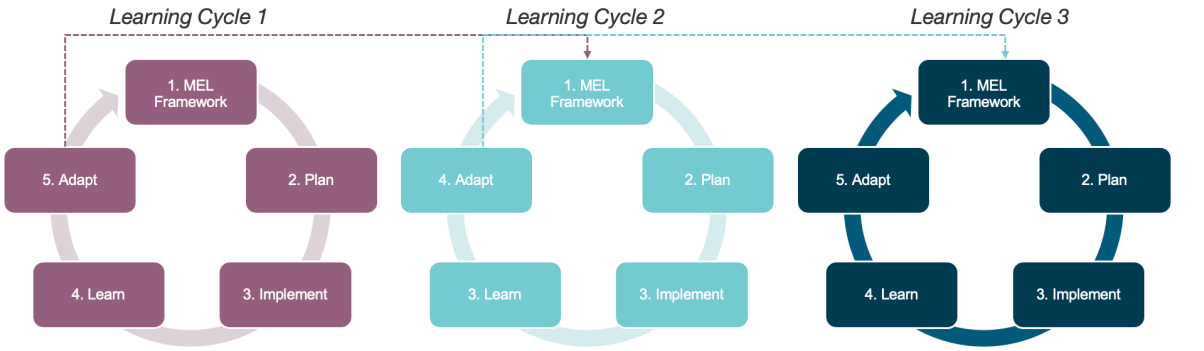

Figure 1: Regular Learning Cycles, Source: Wasafiri

A number of existing MEL tools support regular learning activities. For example, regular TOC review and sense making sessions can help to understand:

- How is the evidence evolving?
- What is happening which we didn't imagine?
- How are actors interacting?
- Are there any new actors?
- Are our interventions still relevant?

Action Reviews help plan better (before action) and learn from experience (after action) to improve future performance in projects or activities.[10]

Case studies or stories of change gathered routinely can add a strong narrative to the changes we're seeing.[11] Systemcraft shows us that we need a '*cacophony' of diverse, credible storytellers as we deliver systems change*. What one person experiences may not reflect another. The stakeholder analysis created at design stage can be used to gather stories in a structured way.

As a tool Most Significant Changes[12] helps routinely gather short stories from a broad range of audiences (sometimes structured around themes) – which allows a look back in time and helps 'join the dots' on how and why changes are happening.

08 Evaluation phase: Towards systems change?

Evaluating systems change programs requires a different approach to traditional evaluations. It focuses on understanding dynamic, interconnected relationships and patterns rather than isolated impacts. This differs from traditional evaluations, which often measure direct outputs and outcomes. Instead systems change evaluation seeks to capture shifts in underlying structures, behaviours, and interdependencies that sustain complex problems. This includes assessing emergent changes, adaptive capacities, and broader ecosystem impacts that evolve over time.

Methods for systems evaluation often involve participatory, iterative approaches. For example, developmental evaluation[13], emphasises continuous learning and feedback, and measures "ripples" of change within a system rather than linear, cause-and-effect results. Existing evaluative approaches and methods such as outcome mapping, outcome harvesting, contribution analysis[14] are also relevant for systems change programmes.

Looking for unintended consequences is crucial when evaluating systems change. This is because systems are complex and interconnected, so that changes in one part of the system can produce ripple effects—both positive and negative—that may be unexpected. Unintended consequences can reveal new dynamics, feedback loops, or resistance points that weren't

[10] Before and After Action Reviews help us plan better (Before) and learn from experience (After) – further reading here - A Better Approach to After-Action Reviews (hbr.org)
[11] Case studies or stories of change help us record experiences of people who operate within or benefit from a system. Further reading here - Case-studies-and-stories-of-change.pdf (intrac.org)
[12] Most Significant Changes is a tool which structures how we collect stories and prioritise their importance. Further reading here - The 'Most Significant Change' technique - A guide to its use | Better Evaluation
[13] Developmental Evaluation is a structured approach to monitoring, assessing, and providing feedback on the development of a project or program while it's being designed or modified, focusing on real-time data gathering and informed decision-making for continuous improvement. Further reading here – Developmental Evaluation, Better Evaluation
[14] Outcome mapping, outcome harvesting, and contribution analysis are all evaluative tools and approaches which help us understand which interventions contributed to the changes we see in the system – what actually led to the change and how can we evidence this? Further reading here - Outcome harvesting | Better Evaluation, Contribution analysis | Better Evaluation

initially visible. These insights can help evaluators understand if the change is genuinely transformative or if it has simply displaced a problem elsewhere. Additionally, identifying unintended consequences allows for adaptive management, enabling stakeholders to adjust strategies to mitigate negative effects and amplify positive ones, thus supporting a more resilient, equitable, and sustainable systems transformation.

09 What next?

Help us make this paper useful. Our immediate goal is to further develop this working draft into more comprehensive guidance for systems change funders and practitioners interested in systems change. We want to make it useful and practical, grounded in practitioners' experiences, and responsive to their questions and needs. To achieve this, your feedback is invaluable. We welcome any reactions and inputs you may have and are particularly seeking feedback on the following questions:

- Where is your organisation on the journey towards systems change and MEL for systems change? What do you consider as your key gaps and needs?
- What content provided in this working draft is useful for you? What would you like to learn more about?

We welcome your inputs, either in response to this document or via webinars that we will convene in late 2025. Interested? Please do get in touch!

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10 Further Reading

The ideas in this document draw on both emerging literature and the experiences of actors implementing complex programming and adaptive programming. In addition to sources shared in this paper, some additional sources of advice are listed below:

- Momentum knowledge Accelerator, Guide to complexity-aware monitoring approaches (USAID, 2020)
- Human Learning Systems – a practical guide for the curious. Centre for Public Impact. 2022.
- How to set up and manage an adaptive programme, Lesson from the Action on Climate Today programme, OPM, Katherine Cooke. 2017.
- Making adaptive rigour work - Principles and practices for strengthening monitoring, evaluation and learning for adaptive management. Ben Ramalingam, Leni Wild and Anne L. Buffardi. The Policy Practice. 2019.
- LearnAdapt: lessons from three years of adaptive management. ODI.
- Course: Introduction to Collaborating, Learning and Adapting in the Program Cycle. USAID Learning Lab.
- On the Road to Learning-Led MEL for Systems Change: Insights from Sophoi's Recent Collaborations, Blog, November 2024

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