



How can we measure transformative climate action?

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This Insight will address the need to design Monitoring, Evaluation and Learning systems that incentivise genuinely transformative change.

KEY MESSAGES

- Attempts to measure transformation can be a lever to accelerate transformative efforts or they can stifle innovation and non-linear pathways.
- We tend to use existing indicators to measure transformation, and evaluate activities after they have finished to assess their transformative potential.
- A second generation of measurement approaches must be underpinned by principles that build in enough ambition and urgency to incentivise and accelerate the changes we need to see by 2030. To move beyond business as usual, they must move on from a single-project perspective to a complex systems lens and provide a space for critical voices and contested knowledge.

Why focus on measuring transformation?

We need far-reaching and significant changes in our socioeconomic systems to deliver the goals of the Paris Agreement and keep global warming to 1.5°C. However, we have little understanding of how to support and catalyse such significant shifts for mitigating and adapting to climate change.

This Insight focuses on what we can learn about working towards transformative objectives. It is aimed at practitioners and funders working within international development who want to reflect on progress so far as well as those working in Europe and other regions who could learn from this experience in another sector.

Looking at experiences in programmes and the findings from their monitoring and evaluation (M&E) systems, we explore how to best use these systems to improve and learn about transformative investments.

Most of the early experience comes from international development programmes that have sought to support the transformative change needed to address climate change with bilateral or multilateral funds. These programmes have been developed with relatively sophisticated M&E systems as part of the accountability measures often associated with overseas development assistance and results-based management.

There is reasonable debate around whether transformation can be measured at all, and what value there is in these efforts. We (the authors) start from the

position that there is value in trying to understand how the transformative change we need to see could come about, and in reflecting on those models using a variety of forms of evidence over time to support programming and investment decisions.

However, we recognise that transformation may well happen outside those models or be unrecognisable while in progress. We also recognise that MEL systems and indicators create their own effects and incentives. They are not simply neutral frameworks for data collection; rather, they shape understandings and activities on the ground.¹

Lessons from the early movers?

Climate finance institutions and programmes are among the first to try to measure transformation in the context of climate action through M&E systems. This Insight summarises key lessons from the experience of nine funds and programmes that have articulated an explicit framing of transformation and attempted to evaluate, learn from or generate research around dimensions of transformation.

Table 1 shows how these initiatives have evaluated transformation in their portfolios. Their work is at different stages and scale. While some have completed evaluations on specific projects, programmes or groups of programmes, others are methodologies to be applied across portfolios of programmes for learning, investment screening criteria or outcome metrics that have not yet been evaluated. But they share several common design features.

Table 1. Approaches to generating insights on transformation

Source	Evaluation type	Evaluation approach
ACT (Action on Climate Today)	Ex-post, theory-based	Using ACT's framework for transformational change, an analysis of five case studies from ACT's portfolio that had completed implementation used process tracing to infer the likelihood of transformation using qualitative evidence against the five main indicators (systemic change, catalytic change, scale, inclusivity, sustainability).
BRACED (Building Resilience and Adaptation for Climate Extremes and Disasters)	Ex-post	Results from ex-post evaluations of BRACED's 15 projects were aggregated to draw out lessons on delivering transformation across the BRACED programme.

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Source	Evaluation type	Evaluation approach
CIF (Climate Investment Funds)	Ex-post	The CIFs ex-post evaluation of their four main funding windows after ten years of implementation considered the extent to which they had achieved results (no evidence, early signals, interim signals, advanced signals) against the four main indicators (see Table 2).
GCF (Green Climate Fund)	N/A	The GCF uses “potential to contribute to a paradigm shift” as a screening criterion for projects seeking funding and as an outcome-level metric to guide its overall strategic objective. But it does not offer clear guidance on how to measure contribution to a paradigm shift at project level or aggregate results across projects to evaluate impact.
GEF (Global Environment Facility)	Ex-post	The GEF’s Independent Evaluation Office used the World Bank indicators (see Table 2) to identify and analyse eight highly successful projects to understand the necessary and sufficient mechanisms for delivering transformation.
ICF (UK government’s International Climate Fund)	Ex-post	ICF investments monitor transformation but do not measure or report on transformational outcomes to an external audience. Evaluations are through an internal assessment of whether a project or programme contributes to transformation. These use a 0–4 scorecard that ranks the likelihood of transformation under four main transformation indicators (scale, replicability, innovation and leverage), backed by a narrative report.
NAMA (Nationally Appropriate Mitigation Action Facility)	Ex-ante	The NAMA Facility receives project proposals for interventions that develop low-emissions pathways and support the Paris Agreement. One of its four criteria for approving projects is “potential for transformation change”. These evaluations are not publicly available.
RAPTA (Resilience, Adaptation Pathways and Transformation Assessment Framework)	Ex-ante	RAPTA is a methodology for integrating resilience and transformation ex-ante into project design. Project designers follow a process of scoping, engagement, theory of change development, systems description and assessment, identifying intervention pathways and designing learning systems. Resilience and transformation are integrated at each stage.
World Bank	Ex-post	The World Bank’s Independent Evaluation Group (IEG) conducted an ex-post evaluation of 20 transformational engagements that met its four criteria of transformation (see Table 2). Each was paired with a non-transformational comparator to draw out lessons on mechanisms and pathways for transformation.

Theory-based and contribution-focused: The evaluations usually outline four or five transformation indicators and use a variety of methods to evaluate transformation, such as secondary document reviews, interviews, process tracing and qualitative comparative analysis. They then distil lessons on which project instruments, mechanisms and theory of change pathways have contributed to (or may in the future contribute to) a change in transformative outcome indicators.

Growing consensus on indicators: Many programmes have coalesced around indicators for relevance, depth and scale of change and sustainability of change, the dimensions of transformation proposed by the World Bank’s IEG (see Table 2). Other dimensions included by some programmes are inclusivity, systemic change and funds leveraged.

Table 2. Ways of measuring dimensions of transformation

Indicator	Definition
Relevance	Addresses a major developmental challenge or societal or global concern, such as poverty or equity.
Depth of change	Causes or supports fundamental change in a system or market; addresses root causes to support a change in trajectory.
Scale of change	Causes large-scale impact at national or global level.
Sustainability	Impact is economically, financially, environmentally sustainable in the long term.

Ex-post evaluation approach: Most of the funds and programmes reviewed use ex-post evaluations or assessments to evaluate whether and how transformation was achieved after projects or programmes are completed. The NAMA Facility and RAPTA framework use transformation indicators ex-ante, to design or screen investments. But they have not undertaken a learning process to see whether their investments achieved the goals set out at project inception to deliver transformational change.

Focus on process, not outcomes: Evaluations focus on the mechanisms that achieve transformation outcomes—the ‘how’ rather than the ‘what’—and tend not to quantify or report outcomes and impacts. Some do this because projects are purposively included in evaluations for having achieved transformational change, so the outcome is assumed to have been achieved. Others cite a lack of comparability across projects or short timeframes to observe results.

What have we learnt?

The first generation of approaches to monitor, evaluate and learn from transformation investments in international climate finance provide valuable insights on the challenges and opportunities for designing M&E systems that track transformation.

Project data is narrow: The experience of these programmes shows that MEL systems often focus narrowly on project outputs, but do not capture external impacts or potentially transformative mechanisms, such as multiplier effects, spillovers, demonstration effects, replication, unintended consequences or financial sustainability. As a result, the evidence base on transformation comes from independent evaluations rather than from data collected by project monitoring systems. While this offers an external assessment of progress, it limits the ability to reflect on changes as the programme is ongoing and to make real-time adjustments.

Incentives for accountability and learning: Because most evaluations of transformation so far have been of projects or programmes funded by international donors, many have the dual purpose of learning about transformation and providing upward accountability to funders. This can lead to incentives that support demonstrating transformative impact, thus avoiding a more critical perspective that highlights failure or provides more frank analysis on political economy conditions that enable or constrain transformative change. Several programmes had a separate learning function which ran alongside it; but these did not necessarily focus on transformation or have the time to consider the issues in much depth.²

Some areas of change are easier than others: Designing MEL systems to assess systems change may be easier for some types of investment and instrument. For example, it may be easier to track changes in technology deployment, investment and financing than in policy, institutions, knowledge or behaviour. To track transformation, we need to gather data about changes in policy, institutions, behaviour, knowledge and social norms from a range of

stakeholders across different scales. Power dimensions and social and political barriers to change can also prevent transformative changes, even within an enabling environment.

Multiple pathways and long timeframes: Transformation is not a simple, linear process. There is no single pathway, and all the possible pathways are context-specific. In complex systems, it is likely that multiple pathways and multiple levers of change will interact. The signals of transformation may also take a long time to emerge, often beyond a project or programme's immediate implementation.

Urgency: Despite focusing on transformation, the approaches in Table 1 have done little to consider the extent to which investments will achieve the transformative changes needed in the short timescale that we have to deliver systemic change. Given the urgency of the challenge, some pathways or investments may no longer be relevant due to the time needed to effect change.

Funding and tracking transformation: what would a more innovative approach look like?

MEL systems operate within the context of funding and accountability, so thinking about how best to use tracking and measurement approaches to support transformative objectives also requires a critical perspective on how funding enables or disables these shifts.

Looking past individual projects to layering knowledge of complex systems

Evaluation, research and learning exercises need to be conducted at different timeframes to generate meaningful evidence that can inform investment cycles and generate wider insight into transformational change in complex systems.

Traditional ex-post project and programme evaluations can be a starting point for integrating lessons into the design of new investments or the second phase of project funding. But they need to be complemented and overlapped by other innovative research and learning approaches and mechanisms.

These could include real-time evaluations that track progress and inform decisions on abandoning or scaling-up projects early in the proof-of-concept phase.³ Other options include research into overlapping areas

surrounding an investment's transformative potential and longer-term learning from completed projects many years after project or investment completion.

M&E frameworks could include indicators and learning processes on the dimension of time, to develop more learning on what types of investments can lead to transformational outcomes in the short, medium and longer term. This can help provide a better understanding on how to layer investments and support transformational change over different timelines and ensure that incentives do not mitigate against more transformative but medium-term investments that are unlikely to yield results in traditional project timeframes.

There does not have to be a trade-off between different approaches. Each approach is likely to fit specific learning requirements related to different types of investment, different stakeholders and different stages of the investment cycle. One thing is essential across all these approaches: evaluation and learning must adopt a systems-level lens that moves beyond the usual linear model of first-generation evaluation approaches.

New approaches will need to consider the complex interactions that lead to system change — from layering and sequencing instruments, investments and policies to the power structures and incentives that enable or constrain change. This will require a rethink around attributing change to a single project and aggregating results across geographies and sectors.

Raising the level of ambition and urgency

Evaluation and learning frameworks need to take a big step forward to explicitly show how investments deliver ambitious climate outcomes. Many current investments could meet the core indicators of relevance, depth, scale or sustainability but not support trajectories that limit warming to 1.5 °C or support systemic climate risk management.

One way to address this gap is to include assessments of whether investments are leading to changes that are compatible with a 1.5 °C world in the case of mitigation or protecting the needs of the most vulnerable in a much higher (say, 4–5) degree world for adaptation. This would move the assessment from a theoretically transformative change to a more defined pathway that is compatible with the scale of transformation we need to see.

We must also be alert to how existing indicators are embedded in projectised systems, which may themselves need to change. Dimensions such as scale of change and sustainability may capture project delivery models or continuation of current practice rather than transformative changes to new systems.

Critical voices: an end to business as usual

The science is clear: transformative change is urgently needed. Learning is a key part of operating and facilitating change in complex systems. But moving beyond business-as-usual approaches to deliver systemic change requires more critical approaches to learning.

With their focus on demonstrating project impact rather than critically reflecting on the likelihood of deeper and more systemic changes, donor accountability frameworks risk stifling real learning. They rarely identify and publicly share the types of programme and ways of working that are unlikely to achieve the impact needed. There was also limited evidence of potential mechanisms being identified as well-performing but non-transformative or unlikely to lead to changes beyond the current system, suggesting a bias to optimism in results.

Where critical learning is happening, it is often omitted from official reports and only discussed behind closed doors. But we no longer have time to gloss over our failures, promote incremental solutions or base future investments on incomplete or tacit learning that is not officially recorded. The current incentive structures for some project or programme-level MEL systems generate findings that keep funds flowing and observe success, even if it is minimal or incremental. There is an urgent need for more critical voices that support honest and deeper learning as we move forward.

Conclusions

An agenda is emerging for second-generation of MEL around transformation. These new approaches need to be based on a set of principles that support urgency and ambition and move beyond a primary focus on accountability within a projectised mindset to learning about how change happens across a system. The new agenda will need to involve innovation in MEL system design and a rethink of the importance of attribution and aggregable results. It will use new methods at different timeframes and embrace a more systemic lens. And it will invite more critical perspectives and honest reflection. As a result of these changes, learning on transformation may be controversial and contested. But now is not the time to shy away—the task at hand is too important.

Endnotes

1. Fukuda-Parr, S. and Yamin, A.E. (2013) 'The power of numbers: A critical review of MDG targets for human development and human rights', *Development*, 56, 58–65. link.springer.com/article/10.1057/dev.2013.8
2. For example, the CIFs' Transformative Change Learning Partnership started in 2017 but the programme started in 2008.
3. One example is the GCF's Learning Oriented Real Time Impact Assessment (LORTA). At the time of publishing, this approach had developed a methodology note but not published any official results. ieu.greenclimate.fund/evaluations/lorta

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