TRANSFORMATIONAL CHANGE AT THE MITIGATION ACTION FACILITY

When climate action catalyses change: What we learn from tracking transformation

On behalf of

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The Mitigation Action Facility supports climate mitigation actions that shift societies toward carbon-neutral development. **Transformational change**, defined as catalytic change in systems and behaviours resulting from disruptive climate actions, is central to the Mitigation Action Facility's Theory of Change (ToC). Projects that achieve transformational change go beyond direct mitigation: they reshape markets, strengthen institutions, and influence policy long after funding ends.

This paper presents key findings from across the Mitigation Action Facility portfolio, highlighting the pathways through which projects have achieved transformational change.

Three overarching insights emerge:

1. **Transformational change unfolds over time.** Projects that sustain implementation and embrace iterative learning are far more likely to produce systemic effects.
2. **Financial mechanisms are powerful levers.** By unlocking investment, enabling market replication, and supporting scaling, they catalyse market-wide change.
3. **Policy integration drives sector-level impact.** The transition from successful demonstration to widespread adoption hinges on climate actions being embedded in policy frameworks.

The following case studies and qualitative insights from implementation and evaluation documents illustrate how these findings manifest in practice, particularly through relevant key results categories signalling lasting transformation. These categories, together with the overarching insights, provide a through-line for the evidence that follows, showing how targeted climate actions can catalyse lasting, system-wide change.

How is transformational change measured?

While several Mitigation Action Facility indicators touch on aspects of transformational change, the **M3 Indicator**, one of five Mandatory Core Indicators, is specifically designed around it. M3 assesses the degree to which supported activities are likely to catalyse impacts beyond the project itself – specifically, their potential for scaling-up, replication, and broader systemic transformation.

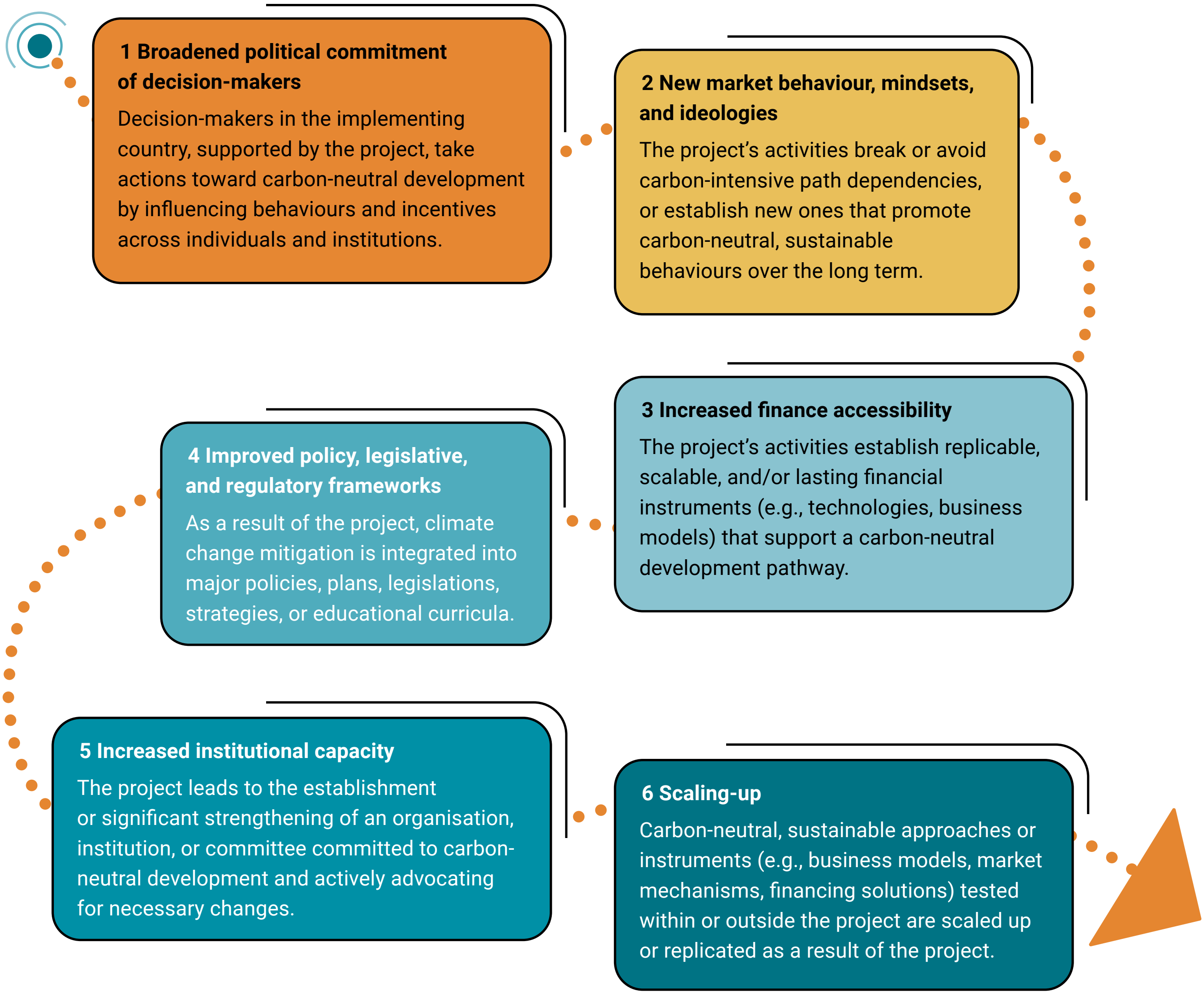
- According to the Transformational Change Measurement Framework (TCMF), projects help enable transformational change across three dimensions:

Dimension 1: Promoting a demonstration effect

Dimension 2: Causing a catalytic effect

Dimension 3: Contributing to additional, sustained GHG emission savings

- Projects are considered transformational if they set targets and achieve outcomes that enable this shift. The M3 Indicator enables crucial evidence of their contribution to transformational change to be gathered. Targeted outcomes should fall into one or more of the following results categories:



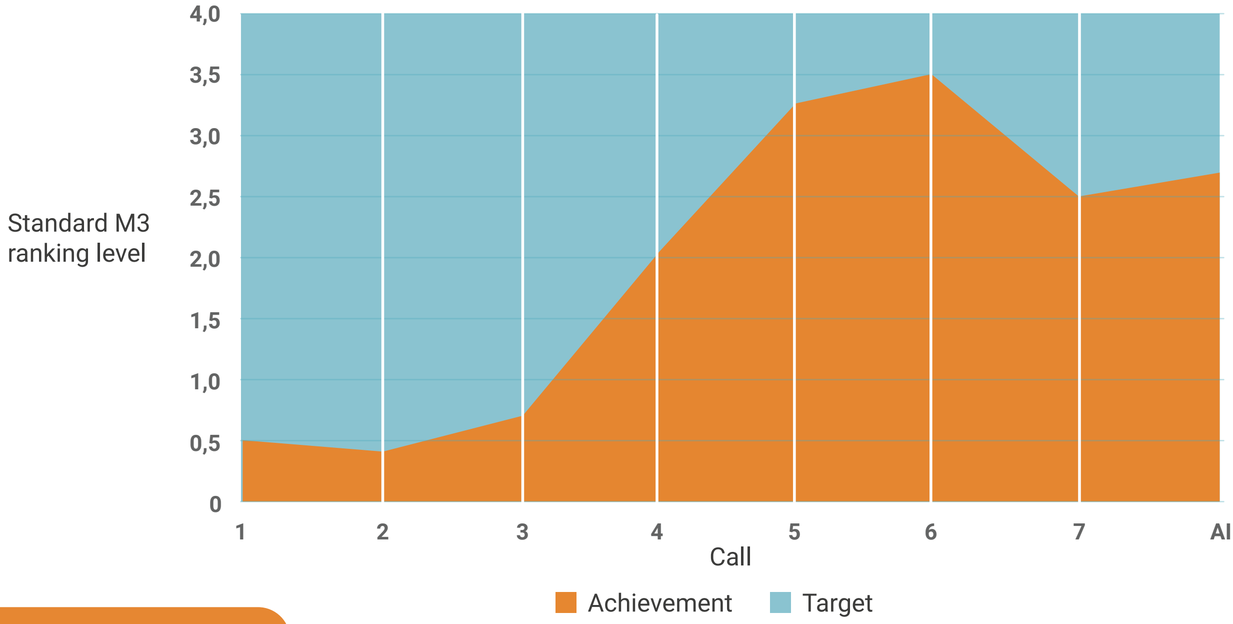
Want to learn more? Check out our M&E Framework!

Key finding 1: Transformational change takes time

Transformational change does not happen overnight, but develops over time through consistent implementation, policy engagement, and system-wide learning. Across the Mitigation Action Facility portfolio, the projects with the greatest potential for transformational outcomes tend to be those at more advanced stages of implementation, particularly those initiated under Calls 1 to 5. These projects have had more time to pilot, adapt, and embed low-carbon solutions within complex systems, and to design and implement tailored financial mechanisms – which in turn has intensified stakeholder engagement and allowed approaches to be refined and results scaled up.

This trend becomes evident in a comparison of M3 scores up to the end of 2024, as shown in Figure 1. A significantly larger proportion of projects from earlier Calls are now achieving M3 scores of 3 or 4, indicating tangible progress toward demonstration and catalytic effects. In contrast, projects from more recent Calls that are still in earlier stages of implementation have yet to reach these higher levels, underscoring the importance of time and continuity in achieving system-wide transformation.

Figure 1 - Degree of transformational change achieved by projects per Call (Call 1 to Call Ambition Initiative)



Case study: India – Waste Solutions for a Circular Economy

Launched under Call 4 and in implementation since 2020, the India - Waste Management project illustrates that transformational change is a gradually unfolding process. By 2024, after five years of sustained work, the project was able to deliver evidence of catalytic effect signals across finance, policy, and public behaviour.

The project set out to initiate a sector-wide transition towards low-carbon municipal solid waste management (MSWM) by demonstrating and scaling up systems in five Indian cities. Work in early years focused on piloting source segregation and designing the Risk Sharing Facility (RSF). Initial results, such as an increase in source segregation from 6% to 87% in parts of Bengaluru, showed promise but required significant effort and localised engagement.

By the later years of implementation, systemic effects had begun to emerge across all M3 sub-indicators. To capture the comprehensive scope of the project's transformational progress, the full set of these sub-indicators, together with the associated effects, have been set out below.

3	Increased finance accessibility
M3.1 Contracts with RSF beyond project cities	The RSF became fully operational and exceeded expectations by supporting four external projects. The RSF directly enabled access to debt financing that would otherwise have been inaccessible or have required substantial collateral of up to 50% of loan amounts up to INR 60 million. By 2023, three companies had received credit guarantee certificates for loans covering seven projects, including five processing facilities by NEPRA, four of which were located outside project cities. In 2024, four additional companies secured guarantees for loans supporting nine waste management facilities, all outside the project's initial locations. The RSF is facilitating replication beyond target geographies and is being actively monitored through letters of partial guarantee issued to waste sector entrepreneurs.

6	Scaling-up
M3.2 Low-carbon sustainable approaches or instruments, e.g., business models, market mechanisms, financing solutions, etc. tested or piloted within or independent of the project are scaled up or replicated	The core models – the RSF, the community engagement tiers, and waste excavation – were successfully replicated. These models went beyond initial project locations and stakeholders, showing signs of long-term adoption and systemic change. How the scale-up happened in practice: - Waste sorting facilities set up under the project continue to operate effectively. - A citizen reward scheme for exchanging dry waste faced implementation issues in some cities but is now being adapted into a digital format to support easier replication elsewhere. - A scheme for reusing cloth bags that was piloted in one city expanded to others, supported by self-help groups and local tailors. The scheme promotes waste reduction and provides an alternative to single-use plastics. - The project also helped revive non-functional biogas plants by providing technical guidance, facilitating partnerships, and supporting improved waste collection systems. All four initiatives were directly supported by the project through technical inputs, implementation design, and advisory services, demonstrating systemic change through replication and institutionalisation.
2	**New market behaviour, mindsets, and ideologies**
M3.3 Lock-in effects or path dependencies that incentivise or firmly establish carbon-intensive, non-sustainable patterns of behaviour over a long period are broken up or avoided as a result of the project's activities	A 6% increase in treated municipal solid waste was achieved nationwide (from 70% in 2021 to 76% in 2023), as reported by MoHUA. The project's achievements are directly attributable to a multi-pronged strategy in support of outcome, including: - Technical advisory support on low-carbon waste treatment solutions at national level - Expansion of a financial facility to support nine waste processing units beyond initial project cities - Assistance to additional cities, enabling several local bodies to secure significant funding under a national urban development initiative - Establishment of a regional learning platform focused on climate and circular economy - Capacity-building through collaborations with nationally recognised training and research institutions - Extensive training and awareness activities at national, state, and city levels These integrated interventions have collectively contributed to improving waste treatment rates across the country.

From expanding access to finance through a pioneering RSF to scaling low-carbon practices and shifting market behaviours, the India Waste Management project has broken path dependencies and fostered replication beyond its original scope.

Key finding 2: Fully operational financial mechanisms unlock systemic change

Across the Mitigation Action Facility portfolio, well-designed and functioning financial mechanisms have proven to be among the strongest enablers of transformational change. Instruments such as loan guarantees, risk-sharing facilities, and refinancing models not only reduce investment risk but also build credibility and signal long-term viability to both public and private stakeholders.

In practice, these mechanisms have gone beyond de-risking to help create entirely new markets, mobilising private capital, supporting early-mover firms, and integrating financial innovation with technical assistance and policy reform. Their effectiveness is based on the fact that they are tailored to local conditions, aligned with national programmes, and designed with clear exit strategies that enable a shift from donor support to commercial sustainability.

By operationalising financial mechanisms from the outset, engaging financial institutions at an early stage, and embedding transparency and governance standards, the Mitigation Action Facility's financial instruments have achieved notable leverage, averaging over eight times the initial public investment. At the same time, they have demonstrated how blended finance can catalyse systemic, lasting change.

Case study: Brazil – Transformative Investments for Industrial Energy Efficiency (PotencializEE)

Launched under Call 4 and in implementation since 2020, the Brazil - Industrial Energy Efficiency project established a guarantee fund that was designed to address financial barriers and incentivise investment in energy efficiency (EE) among small and medium-sized enterprises (SMEs) in São Paulo.

The operationalisation of the Desenvolve SP Guarantee Fund, along with new financial instruments introduced by project partners in the form of credit lines, has been pivotal in unlocking capital flows and reducing perceived lending risks, thereby establishing EE as a viable market segment. This success prompted partner ministries to approve the programme's national expansion, allocating funds to replicate the model across at least five additional states.

This expansion, which will be supported through a dedicated implementation agreement, represents a key step towards systemic transformation. In parallel, the development of a dedicated policy framework for thermal EE, combining capacity building, financial incentives, and R&D support, further illustrates how well-designed financial mechanisms can catalyse sustained, transformational change in the industrial sector.

Among the full set of M3 sub-indicators, M3.1 and M3.3 are the ones that most directly support this key finding, providing clear evidence of the project's contribution to this specific transformational pathway. The remaining sub-indicators, while not central to this particular finding, are included below as they form part of the complete assessment of the project's wider transformational progress.

3	Increased finance accessibility
M3.1 Utilisation of project results in new policy measures and financial mechanisms as part of the National Ten Year Energy Efficiency Plan or an equivalent framework that drives investment in industrial EE	The guarantee fund, which became fully operational in 2024, de-risks EE projects for small and medium-sized enterprises and supports financing aligned with national decarbonisation goals. Two additional national-level credit lines were also launched, both incorporating lessons learnt from the programme's pilot phase to provide more attractive financing terms for EE investments. In parallel, several utility companies initiated assessments based on the programme's policy recommendations with the goal of integrating GHG mitigation criteria into EE project evaluations. These developments demonstrate growing institutional alignment and mark a significant step towards the embedding of EE finance and climate metrics within Brazil's broader industrial and energy frameworks.
4	**Improved policy, legislative, and regulatory frameworks**
M3.2 Replication of technology accreditation approach among other financial institutions as the number of institutions relying on technology list to de-risk loans	The list of eligible EE technologies developed under the programme has been incorporated into national credit frameworks for green industrial financing, expanding access to investments in low-carbon technologies. Certain pieces of EE equipment, such as heat pumps, have also been integrated into national climate financing instruments supporting emissions reduction and climate adaptation efforts.
3	**Increased finance accessibility**
M3.3 Upscaling of PotencializEE's guarantee modalities or eligibility criteria among other financial institutions [number of FI beyond DSP]	Two new national-level credit lines have integrated the EE eligibility criteria developed under the project. These financial products are being implemented through an extensive network of public and private financial institutions across Brazil, expanding access to EE financing nationwide.

Key finding 3: Policy integration drives sector-level change

Across the portfolio, projects that aligned their interventions with national priorities and sectoral policy frameworks were far more likely to produce catalytic effects, sustain momentum, and generate transformation beyond their implementation period. Policy integration helps ensure that project impacts continue to scale after direct support ends.

Evidence from several projects illustrates this. Where governments integrated project-supported approaches into national strategies or standards, such as adopting sustainable production norms, replicating MRV systems, and expanding eligibility for climate-aligned finance, project impacts quickly extended beyond initial sites. In some cases, replication occurred across entire regions or across multiple sectors, demonstrating that the firm anchoring of projects within policy frameworks is a decisive factor in moving from isolated pilot activities to sector-level change.

Case study: Thailand – Sustainable Rice

The Thai Rice project demonstrates how robust policy integration can accelerate sector transformation. By supporting the government in adopting GAP++, a national voluntary sustainable rice standard based on low-emission practices, the project helped embed climate-smart rice production within the country's agricultural framework. Building on this foundation, the National Bureau of Agricultural Commodity and Food Standards (ACFS) and the Rice Department have jointly developed and published the Thai Agricultural Standard for Sustainable Rice (TAS). ACFS is now establishing a TAS certification scheme, while the Rice Department continues to advance research on low-emission rice production. This progressive policy integration, combined with enhanced technical and institutional capacity across extension services and government bodies, has created an enabling environment for the sustained uptake of low-emission farming practices.

Collectively, these achievements show how policy integration can reinforce technical innovations, accelerate replication, and embed climate-smart practices across an entire sector. This strong institutional and policy foundation was a key factor in securing follow-on funding from the Green Climate Fund in 2023, enabling the expansion of low-emission and climate-resilient rice farming to a much larger share of producers nationwide.

In relation to this key finding, M3.2 and M3.4 constitute the most relevant sub-indicators, as they provide direct evidence of the project's contribution to the transformational pathway identified. While the remaining sub-indicators do not directly inform this specific finding, they collectively contribute to an understanding of the project's overall transformational trajectory:

3	**Increased finance accessibility**
M3.1 Increased demand for BAAC green loan programmes on the part of service providers	Initial work to promote access to green finance created early awareness among service providers and laid the groundwork for future uptake. While demand has developed more gradually, the project has demonstrated the relevance of climate-aligned finance for the rice sector, which remains an important lever for scaling in later phases.
5	**Increased institutional capacity**
M3.2 Low-emission rice value chain has been recognised and segregated from conventional rice value chain	The sustained increase in the production and sale of low-emission rice demonstrates that a distinct value chain is now firmly taking shape. The cumulative volume of low-emission rice available on the market has already surpassed the original target by a substantial margin, providing clear evidence that the low-emission segment is recognised, commercially viable, and increasingly differentiated from conventional rice. This progress reflects the uptake of low-emission practices among project-supported farmers and indicates that a fully segregated value chain has effectively been established.

6	Scaling-up
M3.3 Geographical up-scaling of the Thai Rice NAMA beyond the six target provinces: Low-emission rice farming practice has been replicated in the upper Chao Phraya river basin. Independent approaches of the project are scaled up or replicated	The project's area-based extension approach, focused on shared water systems such as dams, basins, and irrigation networks, has effectively enabled expansion beyond the original target sites into neighbouring areas within the same watershed. This approach has supported outreach to new farmer groups through training on low-emission rice practices and by responding to interest from larger farming groups seeking to adopt these methods. The activities reached several hundred farmers, demonstrating that the model is practical, scalable and suitable for replication across adjacent provinces. These results reflect both direct project engagement and collaborative outreach with partners.
1	**Broadened political commitment of decision-makers**
M3.4 Thai Rice SRP/GAP++ with low-emission rice farming practice has become a national voluntary standard	A national sustainable rice standard has been formally approved and published, providing a clear policy signal that supports a long-term shift towards more sustainable production. This standard will enable the country to meet growing market and consumer demand for sustainably produced rice and strengthens the overall policy environment for low-emission agriculture. Its development was led by national authorities with support from the project and complementary initiatives, reflecting a broad base of institutional commitment.

Want to learn more about how transformational change can support your work?

Why it matters

It drives lasting, multifaceted change across systems, accelerating the shift to carbon-neutral development.

Explore the Transformational Change Measurement Framework (TCMF)

Watch our video on transformational change measurement **here.**

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