



greeninitiative 
For a Climate & Nature Positive Planet

Climate-Mitigation **Finance**

A Practical Guide for Financial
Institutions and Small and
Medium-sized Enterprises.

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DISCLAIMER – PERIODIC REVISION AND ALIGNMENT

This guide will undergo periodic revisions to incorporate emerging technologies, scientific advancements, and an evolving understanding of effective climate-mitigation pathways, ensuring it remains relevant and aligned with the latest science and international policy developments.

Within the broader climate finance ecosystem, the guide complements established frameworks including:

The World Bank Group's [Common Principles for Climate-Mitigation Finance](#)

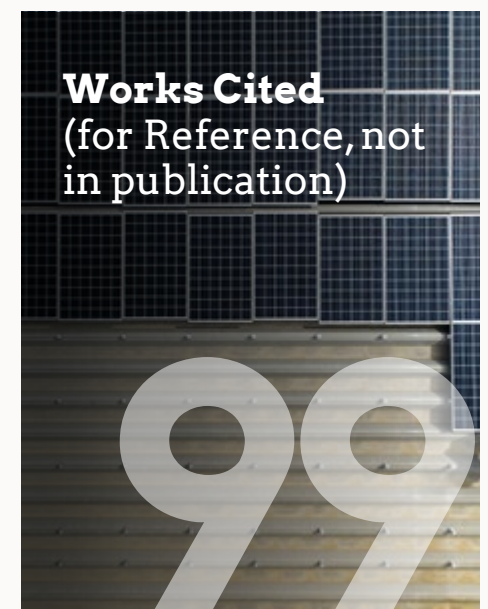
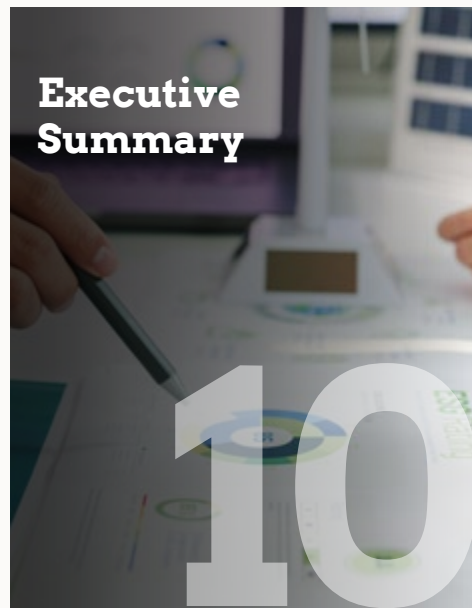
The United Nations Development Programme's [Framework for Climate Finance](#)

The United Nations Framework Convention on Climate Change's [Introduction to Climate Finance](#)

Oxford Policy Management's [Key Lessons for Developing Climate Change Financing Frameworks](#)

The European Commission's Taxonomy for Sustainable Activities

The disclosure framework developed by the [Task Force on Climate-related Financial Disclosures](#) and the [World Bank Group's Sustainable Finance Taxonomies \(SBFN Toolkit\)](#).



Foreword

Small and medium-sized enterprises (SMEs) are the beating heart of every economy, yet they are also the missing link in the global climate transition. Representing over 90% of businesses and more than half of total employment worldwide, SMEs embody the “last mile” of climate action: the point where global commitments meet local realities, where the abstract vocabulary of decarbonization turns into practical, day-to-day change. Without their active participation, the world’s climate ambitions will remain incomplete.

SMEs occupy a unique position in the geography of the low-carbon transition. Their territorial capillarity, spread across cities, small towns, and rural communities, makes them essential vectors for transforming how societies produce, consume, and relate to natural resources. They can bring climate innovation to the streets, farms, workshops, and supply chains that together define the real economy. In doing so, they help translate national commitments into tangible improvements in livelihoods, competitiveness, and environmental resilience.

At the same time, SMEs face formidable barriers. Access to finance, data, technical knowledge, and low carbon technologies remains limited, while the administrative requirements of climate funding are often incompatible with their realities. Many of the world’s largest corporations, once expected to drive emissions reductions through their supply chains, are now scaling back or even abandoning their Scope 3 targets due to cost, complexity, and governance challenges. The burden of that retreat falls directly on SMEs, the suppliers, service providers, and innovators that make up the foundation of global value chains. Unless the financial architecture evolves to meet their needs, the promise of an inclusive and just transition will remain elusive.

Bringing SMEs into the center of climate-mitigation finance (CMF) is therefore not a matter of choice, but

of necessity. Their potential to create jobs and income through green business models can be profoundly transformative, not only for decarbonization, but also for reducing poverty, inequality, and vulnerability. By anchoring climate action in local economies, SMEs can mobilize the human capital, trust networks, and social legitimacy required to change behaviors and perceptions about sustainability in everyday life.

This Practical Guide for Financial Institutions (FIs) and SMEs emerges precisely to close this gap. It provides the tools, methodologies, and common language that both sides need to work together, FIs to deploy resources responsibly and effectively, and SMEs to access, implement, and demonstrate measurable climate action. The framework outlined in this guide assists SMEs in transforming CMF from an abstract concept into an operational pathway.

In the end, achieving a just and inclusive transition depends on how well we empower the “last mile.” SMEs are not peripheral players in the climate agenda, they are its cornerstone. Their success will determine whether climate finance becomes a catalyst for shared prosperity or another missed opportunity in humanity’s race against time.



Dr. Jorge Arbache
Professor of Economics, Universidade de Brasília



Small and Medium-sized Enterprises (SMEs) are independent, non-subsidiary businesses. While quantitative thresholds vary across jurisdictions and financial institutions, SMEs generally represent firms with constrained access to capital, lower operational scale, and more limited internal technical capacity.

In 2024, average global temperatures exceeded 1.5°C above pre-industrial levels for the first time, and each year between 2015 and 2024 was among the ten warmest on record. The atmospheric concentration of carbon dioxide (CO₂), the main greenhouse gas (GHG), reached 420 parts per million (ppm) in 2023, its highest level in 800,000 years (World Meteorological Organization - WMO, 2025). Long the subject of scientific consensus, the effects of climate change have become increasingly apparent to the public, as an ongoing surge in extreme weather events, including droughts, floods, and forest fires, has disrupted food and water security in areas across the globe. Climate-related disasters are affecting millions of people, and the economic losses continue to mount.

The international community's response to the climate crisis has been slow and inadequate. The United Nations Framework Convention on Climate Change (UNFCCC), signed in 1992, has undoubtedly helped mitigate the risk of a 5.8°C increase in average global temperatures under a business-as-usual scenario (IPCC, 2000), yet the current trajectory of carbon emissions is projected to result in 3.1°C of global warming, a level that will still have disastrous implications for the world's people, economy, and ecosystems.

If all parties to the Paris Agreement met the emissions targets in their Nationally Determined Contributions (NDCs), there is a 66% chance that the increase in global temperatures could be held to 2.6°C. However, even this level would place the world beyond the ecological tipping points at which climate change becomes self-

sustaining, according to repeated warnings from the Intergovernmental Panel Climate Change (IPCC). To avoid this scenario, COP 15 in 2009 established a 2°C objective, which was then formalized by the Paris Agreement adopted at COP 21 in 2015. To meet this objective, global GHG emissions would need to be cut from 57 gigatons of carbon dioxide equivalent (GtCO₂eq) in 2023 to 41 GtCO₂eq by 2030 and 36 GtCO₂eq by 2035 (UNEP, 2024), but recent trends in emissions reduction are not consistent with this trajectory. As a result, there is no longer a clear consensus that the 2°C target can be achieved, underscoring the immense urgency of accelerating climate action.



Dr. Emilio Lebre La Rovere

Professor of the Energy Planning Program Federal University of Rio de Janeiro Brazil Nobel Peace Prize laureate



The effects of climate change have become increasingly apparent to the public, as an ongoing surge in extreme weather events, including droughts, floods, and forest fires, has disrupted food and water security in areas across the globe. Climate-related disasters are affecting millions of people, and the economic losses continue to mount.

This guide is a practical instrument for advancing climate mitigation finance. It responds to a growing global need: enabling financial institutions and small and medium-sized enterprises (SMEs) to translate climate ambition into credible, measurable, and financeable action. As markets, regulators, and international frameworks increasingly align around decarbonization objectives, the ability to generate reliable climate information and connect it to financial decision-making has become essential.

Grounded in internationally recognized standards, this guide provides a structured approach to greenhouse gas (GHG) emissions management and climate-related financial assessment. Its framework draws on ISO 14064-1:2018 for the quantification and reporting of organizational GHG inventories; ISO 14064-3:2019 for the independent verification of those inventories; ISO 14065:2020 and ISO 14066:2023 for the competence and accreditation requirements applicable to verification activities; and ISO/IEC 17029:2019 for the general principles governing validation and verification bodies. The guide also incorporates the principles of ISO 14068-1, which establishes a credible hierarchy for net-zero transition strategies prioritizing emissions reductions before the use of carbon credits, as well as ISO 14001, which situates climate action within broader environmental management systems. Together, these standards provide the foundation for climate data that is credible, comparable, and suitable for financial and investment purposes.

The Climate-Mitigation Finance Framework presented in this guide seeks to bridge persistent gaps between financial systems and the real economy. Financial institutions are increasingly expected to demonstrate that the capital they allocate supports low-carbon development pathways. At the same time, SMEs often face significant barriers in accessing climate finance, including limited technical capacity, insufficient climate-related data, and

the absence of standardized methodologies that connect mitigation performance with financing opportunities. This guide has been designed to help address those challenges through practical tools, clear criteria, and aligned verification mechanisms.

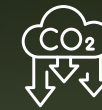
Decarbonization is not solely a technical process. It is also institutional, financial, and operational. Experience across multiple sectors and regions has demonstrated that standards alone do not generate impact unless organizations are equipped to apply them effectively and supported by systems that reward credible performance. Climate mitigation finance therefore depends not only on robust methodologies, but also on the ability to build trust between lenders, enterprises, investors, and broader stakeholders.

The transition toward a low-carbon economy is already reshaping financial systems worldwide. As climate-related expectations continue to evolve, practical and credible frameworks will play an increasingly important role in ensuring that climate finance reaches the sectors and enterprises capable of delivering real and lasting impact.



Tatiana Otaviano

Director of Institutional Relations, Green Initiative



Decarbonization is not solely a technical process. It is also institutional, financial, and operational. Experience across multiple sectors and regions has demonstrated that standards alone do not generate impact unless organizations are equipped to apply them effectively and supported by systems that reward credible performance.

The architecture of climate finance has grown considerably more sophisticated over the past decade. Multilateral commitments, taxonomies, disclosure frameworks, and blended finance instruments have multiplied. Yet the fundamental challenge of getting capital to where it is most needed – to the enterprises, communities, and ecosystems that form the real fabric of the global economy – remains stubbornly unresolved. This guide is a practical and timely contribution to closing that gap.

From the vantage point of the IUCN Climate Action Commission, it is clear that the ambitions enshrined in the Paris Agreement and the Kunming-Montreal Global Biodiversity Framework cannot be realized without a functioning pipeline of climate-mitigation investment at the enterprise level. Climate science has long recognized that ecosystems are not merely the backdrop to economic activity – they are its foundation. The degradation of forests, wetlands, coastal systems, and agricultural landscapes is simultaneously a climate forcing, a biodiversity crisis, and a risk to the livelihoods of millions of small producers and businesses. Addressing these interlocking challenges requires that climate-mitigation finance reach SMEs not as a peripheral aspiration, but as a core design objective of the financial system.

What has often been missing is not political will or financial resources, but a common operational language. Financial institutions and small enterprises have struggled to communicate across a technical divide: FIs require standardized emissions data, science-aligned targets, and verifiable monitoring frameworks; SMEs, for their part, face administrative requirements that bear little relation to their actual capacity. This guide directly addresses that asymmetry. By providing a structured pathway from climate maturity assessment through GHG inventory, verification, target-setting, and certification, it translates internationally recognized standards into practical guidance that can be applied across sectors and geographies.

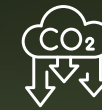
The guide also arrives at a critical juncture. The accelerating rollout of carbon border mechanisms, scope 3 disclosure requirements, and green procurement standards means that climate alignment is no longer optional for SMEs seeking market access. Those that act early – with credible data, clear action plans, and verified progress – will be better positioned to access both capital and markets in an economy that is repricing carbon risk with increasing speed. Those that do not may find themselves progressively excluded. The tools and methodology presented here are precisely the instruments that can support SMEs in making that transition on their own terms.

What strikes me most about this guide is its insistence on the practical and the measurable. It does not promise easy solutions, but it offers something more valuable: a clear and credible process. The transition to a low-carbon, nature-positive economy will require not only ambition, but technical coherence, institutional trust, and sustained capacity-building across the full ecosystem of finance providers and their clients. This guide makes a serious contribution to that effort, and I commend it to financial institutions, policy makers, and enterprises alike.



Sebastian Winkler

Steering Committee Member, IUCN Climate Action Commission & Chair of the Climate Finance and Economy Thematic Group
Commission & Chair of the Climate Finance and Economy Thematic Group



Decarbonization is not solely a technical process. It is also institutional, financial, and operational. Experience across multiple sectors and regions has demonstrated that standards alone do not generate impact unless organizations are equipped to apply them effectively and supported by systems that reward credible performance.

Executive Summary



ESG Rating

SMEs are key actors in the transition to low-carbon and resource-efficient business models. Because SMEs tend to have fewer internal resources relative to larger firms, SMEs depend on CMF to decarbonize their operations. However, many SMEs do not possess the administrative capacity to comply with the monitoring and reporting requirements set by FIs, while limited information on a project's mitigation potential hinders the ability of lenders to assess the risk of investment. Nonetheless, national development banks and local commercial banks have allocated large sums to CMF, yet adoption rate among SMEs remains disproportionately low.

A study by the Organisation for Economic Co-operation and Development (OECD) found that 73% of public and private FIs now offer sustainable finance products tailored to SMEs¹, with the International Chamber of Commerce (ICC) estimating that sustainable finance opportunities for this segment reached USD 789 billion in 2023². Sustainable finance products include financial instruments such as loans, guarantees, bonds, and credit lines that integrate environmental, social, and governance (ESG) considerations into their design, eligibility criteria, and pricing, and are specifically intended to support investments that reduce environmental impacts or risks, improve resource efficiency, or strengthen social outcomes.

Yet despite this expanding supply of sustainable finance, demand and adoption remains comparatively low: although overall interest by SMEs in applying for CMF increased

from 21% to 27% between 2022 and 2023, only about 3% of SMEs submitted an application, and just 1% successfully secured financing³.

Measurement, Reporting and Verification (MRV) is widely cited as the primary bottleneck to accessing CMF, as applying for such financing requires exhaustive processes and information inputs that go well beyond the standard data typically collected by even the most sophisticated SMEs. In particular, baseline greenhouse gas (GHG) emissions data and other sustainability-related information are often unavailable, inconsistent, or incomplete at the SME level. This challenge is compounded by the limited technical expertise and lack of clear guidelines on CMF within both FIs and SMEs, further constraining the lending process. Consequently, many SMEs remain unable to access the financial resources required to strengthen their technical capacity in GHG management and implement projects that would effectively reduce their GHG emissions.

To help bridge the technical gap in climate-mitigation finance, Green Initiative presents this guide for financial institutions and SMEs as one component of a broader architecture for CMF tracking and deployment. Focused on GHG emissions measurement, reporting, verification and the planning and selection of mitigation projects, the guide is designed to accelerate the flow of mitigation resources in line with globally recognized decarbonization strategies. It provides a structured set of concepts, principles, and methodologies to help FIs and SMEs:

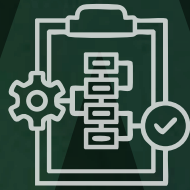


Only about 3% of SMEs submitted an application, and just 1% successfully secured financing.

¹ OECD. *Financing SMEs for Sustainability: Drivers, Constraints and Policies*.

² ICC. *Unlocking Sustainable Finance for SMEs*.

³ ICC. *SME Climate Finance Stocktake*.



Standardize the identification, monitoring, and reporting of CMF investments through science-based evidence of decarbonization



Enable prospective borrowers to meet the technical GHG requirements necessary to access climate-mitigation funding



Strengthen the overall credibility of climate finance



Development of climate-focused financial products.

Central to this effort, the guide includes a sector-wide reference catalogue of proven climate-mitigation activities to help identify financing opportunities across multiple sectors including energy, buildings and construction, tourism and hospitality, manufacturing, fashion and textiles, and agriculture.

Recognizing that robust measurement, reporting, and verification is essential to preserve the integrity of climate-mitigation finance, the guide focuses on an entry-level foundation for SMEs to begin aligning with internationally recognized GHG monitoring and reporting standards. At the same time, it outlines how these capabilities can be strengthened progressively over time through improved data quality, more advanced management systems, and greater climate-finance readiness.

Understanding Climate-Mitigation Finance

The concept of mobilising finance in service of the climate agenda did not arise overnight. Its roots reach back several decades to ethical and socially-responsible investing in the 1970s: for example, the launch of the Pax World Funds in 1971, founded by Luther Tyson and Jack Corbett, has been cited as the first mutual fund designed explicitly to exclude investments in companies supporting the Vietnam War and to incorporate social and environmental criteria into investment decisions⁴.

As environmental awareness grew through the 1980s and early 1990s, the financial sector's role in sustainability took firmer shape: the United Nations Environment Programme Finance Initiative (UNEP FI) was launched in 1992 alongside the Earth Summit in Rio de Janeiro, signaling a key turning point in aligning the private financial sector with broader sustainable development goals⁵. By the mid-2000s, regulatory and institutional frameworks began anchoring CMF more explicitly. The Kyoto Protocol (effective 2005) introduced market-based mechanisms for emissions-reductions, like the Clean Development Mechanism (CDM), which allowed for the creation of carbon

credits, thereby helping catalyse flows of climate finance.

The issuance of green bonds became emblematic: issued by the European Investment Bank and the World Bank in 2007, and corporate green-bond issuances (e.g., by EDF France in 2013) proved the model viable at scale. Today, CMF is anchored both in regulatory intent and market practice: article 2.1(c) of the Paris Agreement (2015) explicitly calls for making financial flows consistent with low-greenhouse-gas-emission and climate-resilient development pathways⁶. Against this backdrop, it becomes crucial to understand how CMF works within a well-defined architecture, not only for governments and FIs, but also for enterprises seeking to access capital for decarbonization.

This section breaks down the mechanics of CMF through four core components. The first subsection clarifies what qualifies as CMF; the second examines the main categories and actors involved; the third explores how climate risks influence financial decision-making; and the fourth quantifies the global financing gap that must be closed to keep warming within internationally agreed limits.



Green bonds are fixed-income financial instruments where the proceeds are exclusively used to finance or refinance environmentally beneficial projects

⁴ Hernández, Ó. U. The Birth of Sustainable Finance: historical insights and epistemological underpinnings. *International Relations* 98, (2025).

⁵ UNEP FI. The evolution of sustainable finance.

⁶ Le, D. A., Truong, T. H. & Dang, T. C. History of the green Finance concept. *Green Finance Tools Education in Vietnam: A Mixed Study Method*



1.1 Defining Climate-Mitigation Finance

CMF is the subset of climate finance that is specifically targeted at reducing or avoiding greenhouse-gas emissions (i.e., mitigation rather than adaptation). The definitions of CMF used by multilateral institutions differ in their specifics, but they all reflect the same core focus on decarbonization.

The IMF's 2021 finance and development-themed report defines CMF as "the deliberate mobilization and allocation of both public and private funds specifically aimed at reducing greenhouse gas emissions"⁷.

According to the UNFCCC, CMF refers to: "financial resources allocated to projects and activities aimed at reducing or limiting greenhouse gas emissions"⁸.

Under the Common Principles for CMF Tracking established by the World Bank Group and other international FIs, an action is aligned with climate-mitigation when: "by avoiding or reducing GHG emissions or enhancing their sequestration, it significantly contributes to stabilizing GHG concentrations in the atmosphere, preventing dangerous anthropogenic interference with the climate system, in line with the long-term temperature goal of the Paris Agreement"⁹.

Accordingly, only actions that generate direct and measurable impacts on decarbonization, either by avoiding or by reducing emissions, can be classified as CMF. Having defined the core concept, the following subsection examines main categories of CMF investments.



⁷ Georgieva, K. No Time to Waste. IMF

⁸ UNCCC. Report on Common Practices Regarding Climate Finance Definitions, Reporting and Accounting Methods.

⁹ World Bank Group. Common Principles for Climate Change Mitigation Tracking.

1.2 Activities Supported by Climate-Mitigation Finance

At least three broad categories of activities may be eligible for SMEs to apply for CMF. These are:



Negative or very low emission activities,

Which generate negative, zero, or minimal GHG emissions, such as carbon sequestration in land use or certain types of renewable energy.



Example:

Reforestation and afforestation projects, soil-based carbon sequestration practices, carbon sequestration through biochar, investments in renewable energy generation, and green hydrogen production.



Transitional activities,

Which remain within GHG-emitting systems but play a crucial role in and contribute to the transition toward a climate-neutral economy, such as improving energy efficiency in manufacturing processes that directly or indirectly rely on fossil fuels.



Example:

Upgrading power plants, enhancing industrial processes, fuel switching in transportation, hybrid vehicle adoption, smart grid integration, among others.



Enabling activities,

Which facilitate and support other activities in making a significant contribution to climate change mitigation, such as the production of very-low-emission technologies.



Example:

Manufacturing of solar panels, wind turbines, and battery storage systems; development of energy-efficient building materials; production of electric vehicle (EV) components; creation of carbon accounting and monitoring systems; investment in research and development (R&D) for low-carbon solutions.

1.3 Climate Risks and Climate-Mitigation Finance

Climate risks refer to the potential adverse consequences for human societies or ecological systems arising from the interaction between climate-related hazards, and the exposure of people, assets or ecosystems, along with their vulnerability¹⁰. These risks are already manifesting through phenomena such as prolonged droughts, intense storms, gradual degradation of ecosystems and the humanitarian and economic costs that follow.

Climate risks interrupt global supply chains, placing heavy demands on public budgets and jeopardising long-term development objectives. The effects of climate risk are cumulative and accelerating: the greater the greenhouse-gas emissions that remain unaddressed, the more intense and frequent physical climate-related hazards become. As a result, GHG emissions are exacting a mounting human and financial toll. From 2014 to 2023, over 4,000 climate-related disasters affected more than 1.6 billion people, and caused estimated economic losses exceeding US\$2 trillion. In 2022 and 2023 alone, economic damages reached US\$451 billion, representing a 19% increase compared to the annual average from the preceding eight years¹¹.

Climate risks degrade ecosystems and compromise the essential services they provide to people and firms, thereby destroying wealth and destabilizing social structures. In Myanmar, for example, climate change, compounded

by rampant deforestation and weak environmental governance, is eroding the integrity of riparian systems and other key ecosystems. Myanmar holds the largest remaining expanse of tropical forest in mainland Southeast Asia, yet it has also recorded among the highest rates of forest loss in the world, driven by illegal logging, agricultural expansion, and conflict-related extraction¹².

While developing countries are most exposed to these effects, no country is immune. In the United States, the crisis in the Colorado River Basin illustrates how climate stress and resource mismanagement can interact. A multi-decade “megadrought,” now considered the region’s worst in at least 1,200 years and strongly linked to human-driven climate change, has drastically reduced water availability. Water levels in major reservoirs such as Lake Mead and Lake Powell have fallen to historic lows, putting at risk irrigation-dependent agriculture, urban water supply for tens of millions of people, hydropower generation, and aquatic ecosystems throughout the basin. Although the socio-economic and institutional contexts of the United States and Myanmar differ markedly, both cases reveal similar ecological dynamics: long-term environmental degradation interacting with climate change to increase resource stress and social vulnerability¹³.

In Europe, worsening wildfires, particularly in Mediterranean regions such as Greece, Spain, and Italy, illustrate how

The Human Cost



4,000+ Climate-related disasters.



1.6 Billion People affected worldwide.

Economic Damages (USD)



2014 – 2023 US\$ 2 Trillion



2022 – 2023 US\$ 451 Billion

¹⁰ US EPA. Climate Risks and opportunities defined. <https://www.epa.gov/climateleadership/climate-risks-and-opportunities-defined> (2025).

¹¹ ICC. The economic costs of extreme weather events.

¹² FAO. *Background Report for Identifying the Drivers of Deforestation and Forest Degradation in Myanmar*.

¹³ Williams, A. P., Cook, B. I. & Smerdon, J. E. *Rapid intensification of the emerging southwestern North American megadrought in 2020–2021*. *Nature Climate Change* 12, 232–234 (2022).

increased heat and drought conditions are affecting ecosystems. The 2023 fire season was among the most severe in recent decades, with prolonged dry periods and higher temperatures contributing to elevated fire risk. In Greece alone, wildfires in 2023 burned more than 130,000 hectares, including areas within 2000¹⁴ protected sites such as the Dadia–Lefkimi–Soufli National Park, an important habitat for raptors and other threatened species. These events reduced forest cover, weakened carbon sinks, fragmented habitats, and altered soil and water dynamics. As with Myanmar’s forest loss and the Colorado River Basin’s hydrological stress, these impacts show how climate-related pressures can diminish ecosystem function, ultimately creating broader environmental and economic challenges¹⁵.

Beyond the direct impacts of climate-related hazards on ecosystems, land degradation can itself become a forward-looking climate risk. For example, degraded, idle, or chronically unproductive land represents an important concern. Where already-cleared land fails to generate viable livelihoods or economic returns, producers may face incentives to expand into forested or high-carbon areas. Restoring the productivity and ecological function of existing agricultural land can therefore have a compounding mitigation effect: it can improve yields and rural resilience, enhance carbon storage in soils

and vegetation, and reduce future pressure for land conversion. For climate-mitigation finance, this suggests that land rehabilitation and productivity-restoration investments should be evaluated not only for their immediate emissions impact, but also for their potential to reduce longer-term deforestation and degradation risks.

The cost of climate risks inaction is not theoretical; it is already reflected in growing public expenditures, economic losses, and spiralling risk to financial portfolios. Research indicates that meeting the needed climate-finance levels could avoid over half of the projected USD 2,300 trillion in climate change-induced economic losses by 2,100¹⁶. While national governments and private actors have made progress on climate-mitigation, the scale of investment required to decarbonise the global economy exceeds the capacity of public funds alone.

FIs, and especially those serving SMEs, must play a more central role in funding climate action. Access to instruments like green bonds, blended finance, and concessional loans is gradually expanding, yet they remain out of reach for many SMEs, often due to inconsistent reporting frameworks and unclear eligibility criteria. Green bonds, for example, have successfully financed renewable energy and efficiency upgrades in Europe and the U.S., but their uptake among SMEs remains limited.



In Myanmar, for example, climate change, compounded by rampant deforestation and weak environmental governance, is eroding the integrity of riparian systems and other key ecosystems.



2023

fire season was among the most severe in recent decades, with prolonged dry periods and higher temperatures contributing to elevated fire risk



130 000

Hectares burned in Greece in 2023, including areas within **2000 protected sites** such as the Dadia–Lefkimi–Soufli National Park

¹⁴ Natura 2000 is the European Union’s network of protected areas established to conserve biodiversity and protect threatened habitats and species under the Birds and Habitats Direct.

¹⁵ San-Miguel-Ayanz, J. *et al.* Forest fires in Europe, Middle East and North Africa 2023. *JRC Publications Repository* (2024) doi:10.2760/8027062.

¹⁶ CPI. *Global Landscape of Climate Finance 2024: Insights for COP29*.

1.4 The Global Climate-Mitigation Finance Gap

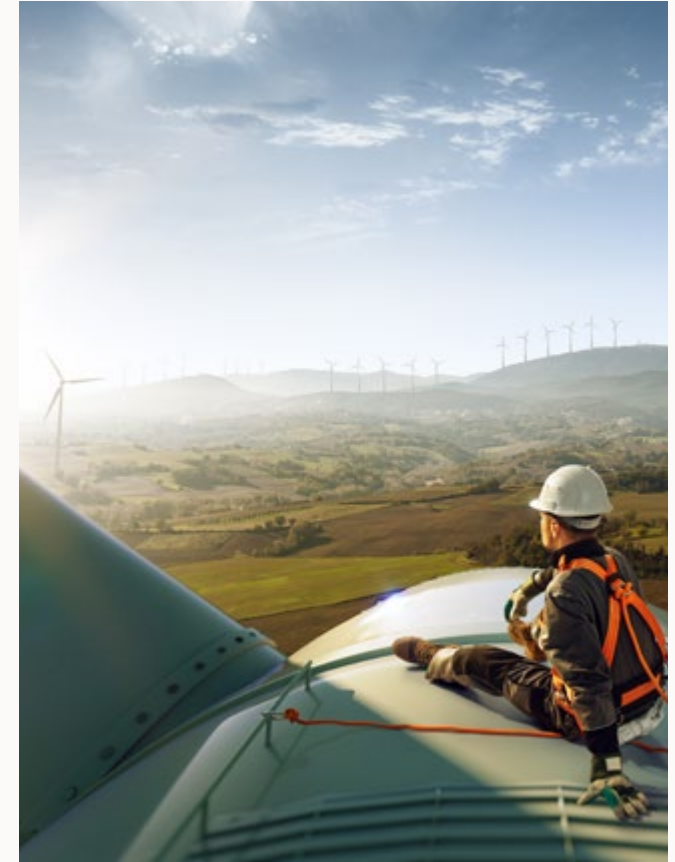
Despite the growing volume of financial resources committed to climate action, a persistent gap remains between the availability of CMF and its effective deployment, particularly among SMEs. This gap is structural rather than purely financial: the requirements imposed by FIs often exceed the technical and informational capacities of prospective SME borrowers, creating an asymmetry that restricts access to mitigation investment opportunities.

This divergence is visible even as sustainable finance offerings expand. An OECD assessment shows that 73% of public and private FIs now provide sustainable finance products tailored to SMEs, while the ICC estimates that opportunities for this segment totaled USD 789 billion in 2023. Yet uptake remains minimal: although interest among SMEs rose from 21% to 27% between 2022 and 2023, only about 3% submitted an application, and just 1% successfully secured financing. The biggest problem, therefore, is not a shortage of capital but the lack of mechanisms that make this capital attractive and aligned with the operational realities of SMEs.

In response, multiple initiatives, led by development finance institutions and platforms such as UNEP FI and the Principles for Responsible Investment, have and strive to continue strengthening the financial sector's understanding of mitigation pathways, cross-sector

synergies, and the enabling role of compliance and policy frameworks. Advances in digital tools, open-source innovations, and artificial intelligence have further improved data transparency and climate-risk analysis. However, these improvements remain uneven. Capacity constraints across regions, insufficient data on unlisted assets, the absence of sector-specific indicators, and overly generic risk models still limit the ability of FIs to translate climate commitments into real investment flows.

Bridging this gap requires practical tools that help FIs and SME borrowers align on what constitutes a valid mitigation investment. The framework presented in this guide supports that process by establishing clear concepts, standardized methodologies, and thresholds for identifying, structuring, tracking, and reporting mitigation activities. Ultimately, closing the CMF deployment gap is not merely a question of mobilizing more capital. It requires channeling financial resources to the right actors through mechanisms that reflect the diversity of mitigation opportunities across the economy. A differentiated, systemic approach, combining robust guidance, institutional capacity-building, technical assistance, and regulatory coherence, is essential to ensure that climate-mitigation finance flows at the scale and speed needed to meet global climate goals, while enabling SMEs to become active contributors to the low-carbon transition rather than passive bystanders.

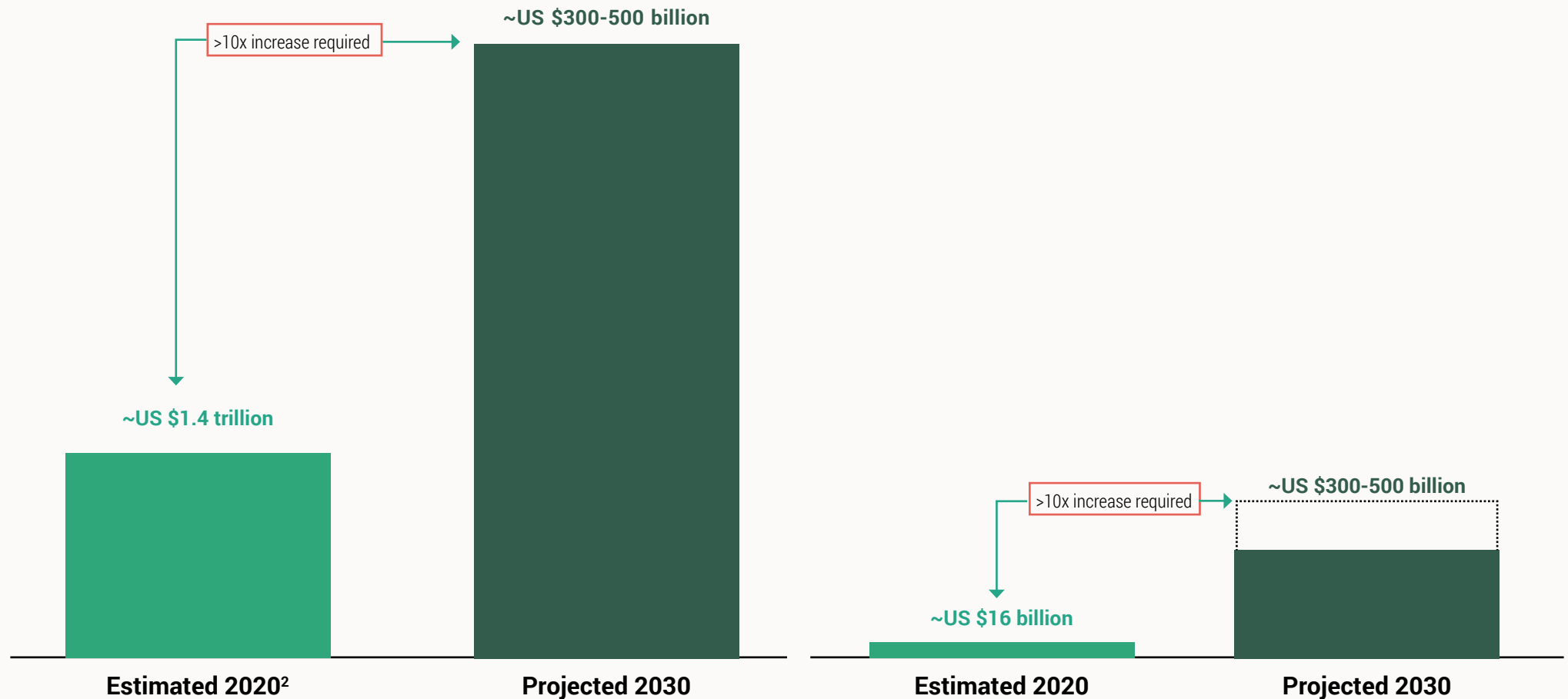


73%
of Financial Institutions: (Public and private) already offer sustainable finance products specifically tailored for SMEs



USD 789 Billion
Total estimated market opportunity for the SME segment in 2023 alone.

Total annual average capital investment need for breakthrough decarbonization technologies¹



¹ Decarbonization technologies here are inclusive of carbon capture, utilization and storage (CCUS), hydrogen and bioenergy.

² The investment level is reflective of average investment from 2016 to 2020.

Opportunities in Climate-Mitigation Financing

A man and a woman in business attire are sitting at a desk in an office. The woman is on the left, smiling and looking at a tablet. The man is on the right, gesturing with his hands as if explaining something. They are both looking at the tablet. There are papers and a pen on the desk. In the background, there is a bookshelf with books. The overall tone is professional and collaborative.

CMF is vital to the global transition to a low-carbon economy. Large flows of climate finance are committed, but deployment remains concentrated among a narrow range of sectors and institutions. This signals a dual opportunity: FIs and SMEs both stand to benefit from developing the technical and organizational capacities necessary to effectively access, deploy, and monitor CMF projects.

2.1 Opportunities for Financial Institutions

As CMF scales globally, FIs are faced with a rapidly evolving landscape for sustainable finance. Engaging in CMF aligns lenders with global climate goals while offering a diverse range of benefits, including revenue growth, innovation, enhanced risk management, and strategic positioning. The section below outlines the principal areas where FIs can capture value and build resilience through CMF:





Revenue Growth and Business Development

CMF opens a dynamic channel for FIs to diversify their portfolios and meet the growing demand for sustainable investments. The sustainable finance market is expanding rapidly, with green bonds, blended finance, sustainability-linked loans, environmental, social and governance (ESG) investment vehicles, and thematic funds all experiencing sustained growth. In 2023, the global green bond market surpassed US\$2.5 trillion in cumulative issuance, and total sustainable lending is projected to grow by over 25% annually¹⁷. Engaging in CMF allows institutions to benefit from this global trend and generate new revenue streams both through traditional instruments and emerging sustainable finance mechanisms.

Participation also positions institutions to benefit from blended-finance models, in which concessional resources from multilateral development banks, development finance institutions, and global climate funds are used to de-risk investments. Blended finance has the potential to unlock private capital at leverage ratios of 1:4 or higher, particularly in emerging markets, bolstering returns while generating positive reputational effects¹⁸.



Access to New and Preferential Funding Sources

By aligning with global climate goals, FIs can access long-term, lower-cost capital from a range of international partners, including multilateral development banks, climate funds, and public finance institutions, which often combine concessional finance, technical cooperations, and risk-sharing instruments (e.g., guarantees, first-loss equity, subordinated debt) to derisk climate-aligned projects¹⁹. These blended-finance structures and concessional loans enable local or national banks to channel funds under more competitive lending conditions: longer tenors, reduced interest rates, or relaxed collateral requirements, thereby bridging the “viability gap” for borrowers pursuing green investments²⁰. In practice, national development banks and other intermediaries are recognized as “privileged” actors to scale international climate finance into domestic credit markets, leveraging their market knowledge, relationships, and capacity to blend concessional and commercial capital²¹.



Enhanced Risk Management and Climate Disclosure Capabilities

Developing internal CMF capacity equips banks to better assess, manage, and disclose climate-related risks and opportunities in their portfolios. Frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD) and emerging regulatory standards require robust governance and data systems. Research has shown that banks that adopt TCFD-aligned disclosure processes are better positioned to mitigate transition risks and enhance investor confidence. Proactive institutions are using CMF integration to strengthen their alignment with ESG regulations, investor expectations, international green and impact funds and supervisory guidance²².

¹⁷ GFL. Green bonds hit 2.5 trillion dollars, GSS+ passed 4 trillion dollars.

¹⁸ Apampa, A. Blended finance leverage ratio. *Convergence*.

¹⁹ IFC. *The Role of Blended Finance in an Evolving Global Context*.

²⁰ World Bank Group. What you need to know about concessional finance for climate action.

²¹ IDB et al. The Role of National Development Banks in Intermediating International Climate Finance to Scale up Private Sector Investments.

²² Rehman, A., Gonenc, H. & Hermes, N. Carbon disclosure policy, external financing needs and the cost of capital: Does financial market quality matter? *Business Strategy and the Environment* 32, 5854–5872 (2023).



Operational Innovation and Product Development

Involvement in CMF often drives internal innovation, as FIs develop new credit products, investment criteria, monitoring tools, and client advisory services to support decarbonization. These activities enable deeper engagement with clients across sectors, including SMEs, fostering long-term relationships and unlocking new market segments. Studies suggest that banks integrating climate-risk and climate-aligned finance tend to improve performance, risk-management and attract clients interested in sustainable finance²³.



Reputation, Market Positioning, and Influence

Becoming a leader in CMF enhances an institution's reputation as a credible, forward-looking financial actor. It supports improved ESG ratings, attracts sustainability-focused investors, and builds trust with clients seeking climate-aligned financial solutions. Institutions at the forefront of CMF can participate in shaping climate policy frameworks, national taxonomies, and climate risk guidance, influencing the evolution of sustainable finance standards.



Green Financing Opportunities

The reference catalogue presents a wide range of climate-mitigation activities with investment potential across key sectors including tourism, manufacturing, buildings, and agriculture, detailing for each sector the specific mitigation opportunities related to energy use, transport, waste management, and other relevant fronts.

All activities are organized according to their mitigation category: Negative or Very Low Emission Activities (NLEA), Transitional Activities (TA), and Enabling Activities (EA). The table compiles practices, emerging technologies, and sector-specific interventions as a practical reference for understanding what types of actions can meaningfully reduce greenhouse-gas emissions and align with international climate-finance criteria.



Green Initiative's reference catalogue:

For SMEs, the reference table operates as a practical decision-support tool that helps them identify feasible, effective, and sector-appropriate climate-mitigation measures, offering concrete options they can implement to reduce emissions and modernize operations. At the same time, for banks, investment funds, and public financial entities, the table functions as a screening and classification instrument, enabling them to assess whether proposed initiatives are likely to align with recognized technical criteria for climate finance, determine their eligibility for funding, and identify projects with proven mitigation potential.

²³ Cabby, J., Ziane, Y. & Lamarque, E. The impact of climate change management on banks profitability. *Journal of Business Research* 142, 412–422 (2022).

GREEN INITIATIVE'S CLIMATE-MITIGATION REFERENCE CATALOGUE

SECTOR		Energy			Transport			Water management			Waste management		
		NLEA	TA	EA	NLEA	TA	EA	NLEA	TA	EA	NLEA	TA	EA
TOURISM	Tourism Destinations	Creation of native forest corridors connecting tourism facilities. Implementation of regenerative agriculture practices in agritourism operations.	Upgrade of public lighting and infrastructure in tourism areas with energy-efficient alternatives.	Implementation of microgrids to enable greater renewable energy integration in tourism zones.	Implementation of hybrid boat and water taxi services. Promotion of bike-sharing and electric shuttle services for visitors.	Introduction of low-emission buses and boats in high-traffic tourist circuits.	Development of multi-modal mobility plans for sustainable access to tourist destinations.	Implementation of nature-based wastewater treatment (e.g., constructed wetlands) in rural tourism hubs. Implementation of mangrove restoration programs in coastal tourism areas.	Upgrading conventional sewer connections to decentralized eco-treatment systems.	Monitoring platforms for water consumption and wastewater output at destination level.	Installation of recycling and composting stations in tourist public spaces. Community-led "clean beach" or "mountain without trash" programs. Creation of micro-centres for the collection of recyclable waste managed by local associations.	Integration of color-coded waste sorting stations in high-traffic tourist attractions. Expansion of source-separated waste bins in tourist hotspots.	Development of destination-wide waste monitoring and reporting platforms.
	Operators and agencies	Use of solar cookers or biomass stoves powered by local organic waste.	Implementation of smart building management systems for energy optimization. Retrofit of office equipment and lighting with energy-efficient alternatives.	Digital tools to track and optimize the carbon footprint of tour packages.	Transition to electric vehicle fleets for guest transportation. Implementation of efficient shuttle services to reduce individual car use	Use of hybrid vans or fuel-switching in tour transportation services. Upgrading to more fuel-efficient aviation for remote destination access.	Partnerships with low-emission transport providers and development of integrated booking systems.	Use of portable dry or composting toilets during excursions. Greywater reuse in eco-camps for cleaning or irrigation.	Design of tourism experiences that include responsible water management practices. Transition from bottled water to refillable stations during excursions.	Capacity-building workshops on greywater reuse and hygiene in remote operations.	Implementation of "zero-waste" tourism experiences. Adoption of reverse logistics for the collection of waste generated during tours. Use of reusable and biodegradable materials in welcome packs.	Transition to zero-waste tour packages with minimal packaging and reusable supplies	Use of digital tools to track and report waste generated by tour activities. Virtual and face-to-face training in waste management for guides, operators and tourist service personnel.
	Restaurants	Implementation of biomass energy systems using local organic waste. Energy storage systems paired with renewable energy for eco-tourism sites. Development of carbon sequestration through sustainable landscaping and gardens.	Converting from carbon-intensive fuel to lower-carbon alternatives in existing tourism infrastructure. Brownfield energy-efficiency improvements in resorts and hotels. Implementation of energy-efficient cooking and refrigeration equipment.	Smart meters and energy management systems for hotels and tourism facilities. Activities targeting energy customers to support reduction in consumption. Network stability measures that enable greater integration of renewables in tourism-heavy areas	Promotion of bike-sharing and e-bike rental programs. Adoption of electric scooters or small EVs for food delivery in tourist areas.	Fuel switching in supply chain logistics (e.g., hybrid or biodiesel delivery vans).	Integration with local low-emission supply networks and sustainable sourcing platforms.	Development of closed-loop water recycling systems Installation of grease traps in kitchens. Installation of low-flow faucets and aerators in sinks.	Installation of grease traps and water-saving faucets in kitchens. Introduction of dishwashing systems with water-saving cycles.	Staff training on water-saving behavior and kitchen wastewater best practices.	Implementation of on-site composting systems for organic waste. Reducing Food Waste Through Adaptive Portions and Menu Redesign. Total elimination of the use of single-use plastics (cutlery, packaging).	Conversion of organic waste from tourist restaurants into compost for gardening or local agriculture. Implementation of food donation systems and edible surplus redistribution	Adoption of smart scales and waste tracking apps in kitchens
	Hotels and Resorts	Installation of on-site solar photovoltaic systems for hotels and resorts. Implementation of small-scale wind energy systems for remote tourism facilities. Development of micro-hydroelectric systems for eco-lodges near water sources. Installation of geothermal energy systems for heating and cooling.	Retrofitting existing tourism accommodations with energy-efficient systems. Upgrading HVAC systems to high-efficiency heat pumps. Installation of LED lighting systems with motion sensors and daylight controls.	Building management systems (BMS) that optimize energy use in real time. Implementation of smart building management systems for energy optimization	Installation of EV charging stations for guests. Adoption of electric hotel shuttle services.	Conversion of existing hotel fleets to hybrid or lower-carbon alternatives.	Guest information platforms promoting low-emission transport options.	Installation of nature-based wastewater treatment systems (e.g., constructed wetlands or biofilters). Installation of greywater reuse systems (e.g., for toilet flushing or garden irrigation). Use of low-water-consumption laundry equipment.	Installation of dual-flush toilets and low-flow showerheads	Smart meters and dashboards to monitor water and waste in hotel operations.	Implementation of zero waste to landfill programs in tourist accommodations, with separation at source, composting and recycling.	Introduction of in-room waste sorting systems for guests.	Integration of smart dashboards to track waste generation by department (e.g., housekeeping, F&B).

GREEN INITIATIVE'S CLIMATE-MITIGATION REFERENCE CATALOGUE

SECTOR		Energy			Transport			Water management			Waste management		
		NLEA	TA	EA	NLEA	TA	EA	NLEA	TA	EA	NLEA	TA	EA
MANUFACTURING	Fashion & Textile	<p>Production of renewable energy to power manufacturing facilities.</p> <p>Energy storage solutions paired with renewables for manufacturing plant.</p>	<p>Replacement of conventional dyeing machines with energy-efficient low-temperature models.</p> <p>Conversion from single electricity production to combined heat and power in industrial settings.</p>	<p>Implementation of energy storage systems linked to renewable sources for textile plants.</p> <p>Reduction of commercial losses through metering in industrial zones.</p>	<p>Use of electric vehicles for transport of raw materials and finished garments.</p>	<p>Switching logistics fleets to biodiesel or hybrid delivery trucks.</p>	<p>Development of multi-modal mobility plans for sustainable access to tourist destinations.</p>	<p>Use of waterless dyeing or low-temperature dye systems.</p> <p>Implementation of solar-powered wastewater treatment systems in industrial facilities.</p>	<p>Wastewater recycling systems in textile production facilities.</p> <p>Implementation of solar-powered wastewater treatment units.</p>	<p>Digital monitoring of water use and effluent discharge in fashion manufacturing.</p>	<p>Use of recycled fibers and circular textile inputs.</p>	<p>Integration of digital pattern-making to minimize fabric offcuts.</p>	<p>Training programs on circular economy for textile factory staff</p>
	Fisheries	<p>Solar-powered cold storage systems for fish preservation.</p>	<p>Conversion of diesel-powered fishing boats to hybrid or lower-emission engines.</p>	<p>Installation of battery storage systems at coastal fish processing units.</p>	<p>Using electric or hybrid fishing vessels to reduce direct emissions.</p> <p>Deployment of electric cargo tricycles for short-distance fish distribution.</p>	<p>Fuel switching in refrigerated transport units used for seafood.</p>	<p>Establishment of shared logistics hubs with low-emission vehicles for fishery products.</p>	<p>Implementation of integrated aquaculture systems with carbon capture using algae.</p> <p>On-site wastewater filtering for fish cleaning areas</p>	<p>Recovery and treatment of wastewater from fish cleaning and processing.</p>	<p>Real-time water quality sensors in processing plants</p>	<p>Bioconversion of fish waste into compost or biogas.</p>	<p>Recovery and sorting of byproducts (bones, scales) for reuse.</p>	<p>Traceability systems to monitor fishery by-products and waste.</p>
	Food & Beverages	<p>Production and storage of low-carbon hydrogen for industrial processes.</p> <p>On-site renewable energy systems (e.g., solar panels, biogas digesters) in food processing plants.</p>	<p>Replacement of conventional ovens or boilers with biomass-based systems.</p> <p>Brownfield displacement of carbon-intensive fuels in industrial processes</p>	<p>Manufacturing components for renewable energy systems (implied through value chain support).</p> <p>Applying vertical farming powered by renewable energy for input production</p>	<p>Adoption of electric vehicles for local food delivery and logistics.</p>	<p>Use of low-emission fuels in refrigerated transport vehicles.</p>	<p>Logistics platforms with route optimization for reduced emissions in food distribution.</p>	<p>Closed-loop water recycling systems in processing.</p>	<p>Bioreactors for high-efficiency wastewater treatment</p>	<p>Digital platforms for monitoring waste generation and water use in beverage facilities.</p>	<p>Composting of organic waste for use as fertilizer</p>	<p>Circular packaging initiatives (e.g., refill stations, returnable glass).</p>	<p>Digital monitoring systems for food loss and waste.</p>

GREEN INITIATIVE'S CLIMATE-MITIGATION REFERENCE CATALOGUE

SECTOR		Energy			Transport			Water management			Waste management		
		NLEA	TA	EA	NLEA	TA	EA	NLEA	TA	EA	NLEA	TA	EA
BUILDINGS & CONSTRUCTION	Residential buildings	Residential Buildings	<p>Installation of on-site renewable energy systems, such as rooftop solar panels or solar water heaters for self-consumption.</p> <p>Complete electrification of climate control systems by installing geothermal or air-source heat pumps.</p> <p>Construction of new homes that meet "net-zero energy building" (NZEB) standards.</p>	<p>Retrofitting the thermal envelope, including installing high-performance insulation in walls and roofs.</p> <p>Replacing windows with double or triple-pane units featuring low-emissivity (Low-E) glass.</p> <p>Replacing all lighting with LED technology and upgrading old appliances to certified low-consumption models.</p>	<p>Manufacturing or distributing high-efficiency, residential-sized heat pumps.</p> <p>Providing energy audit and certification services for homes.</p> <p>Developing software and apps for residents to monitor and manage their energy consumption</p>	<p>Installation of charging points for electric vehicles (EVs) in single-family or community garages.</p> <p>Design of secure and easily accessible bicycle parking facilities.</p> <p>Construction of residential projects in locations with direct access to high-frequency public transport.</p>	<p>Reducing the area dedicated to parking for internal combustion vehicles.</p> <p>Creating dedicated spaces for car-sharing services.</p> <p>Designing safe and pleasant pedestrian pathways connecting to nearby services and shops.</p>	<p>Manufacturing and installing residential EV chargers.</p> <p>Developing software solutions to manage the reservation and use of EV chargers in multi-family buildings.</p> <p>Providing sustainable mobility consulting services for new residential developments.</p>	<p>Installation of rainwater harvesting and storage systems for irrigation and use in toilets.</p> <p>Implementation of greywater (from showers and sinks) recycling and reuse systems.</p> <p>Designing gardens with native plants that do not require irrigation (xeriscaping).</p>	<p>Installation of low-flow fixtures (toilets, faucets, showers) with efficiency certifications.</p> <p>Implementation of drip or micro-sprinkler irrigation systems for gardens and common areas.</p> <p>Installation of smart meters to monitor consumption and detect water leaks.</p>	<p>Manufacturing of high-efficiency fixtures and faucets for the residential market.</p> <p>Selling and installing compact, prefabricated greywater recycling systems.</p> <p>Consulting on low-water consumption residential landscape design.</p>	<p>Use of mass timber (e.g., CLT) or laminated bamboo instead of steel or concrete.</p> <p>Reuse of existing buildings through retrofitting, avoiding demolition waste.</p> <p>Use of natural or bio-based construction materials (e.g., compressed earth blocks, straw-bale panels).</p>	<p>Implementation of an on-site management plan to separate and recycle construction and demolition (C&D) waste.</p> <p>Use of materials with high recycled content, such as steel or concrete aggregates.</p> <p>Adoption of component prefabrication techniques to minimize on-site material waste.</p>
	Commercial and Public Buildings	Commercial and Public Buildings	<p>Installation of large-scale solar photovoltaic systems on rooftops or as parking canopies.</p> <p>Connection of the building to a low-emission district energy network for heating or cooling.</p> <p>Design and construction of public buildings that comply with zero-emission mandates.</p>	<p>Deep energy retrofits of public buildings, such as schools or offices, to achieve at least 30% energy savings.</p> <p>Upgrading central HVAC systems, such as replacing chillers with high-efficiency models.</p> <p>Implementation of a Building Management System (BMS) to monitor and optimize energy consumption.</p>	<p>Operating as an Energy Service Company (ESCO), financing and implementing upgrades through performance contracts.</p> <p>Manufacturing of high-efficiency commercial HVAC systems with low Global Warming Potential (GWP) refrigerants.</p> <p>Providing Commissioning services to verify that building systems operate at maximum efficiency.</p>	<p>Installation of EV charger fleets in public or corporate parking facilities.</p> <p>Construction of extensive and secure bicycle parking, including changing rooms and showers for users.</p> <p>Development of mixed-use projects (offices, retail, housing) to reduce occupants' travel needs.</p>	<p>Implementation of corporate mobility plans that incentivize the use of public or shared transport among employees.</p> <p>Reducing the number of private vehicle parking spaces in favor of green or pedestrian areas.</p> <p>Designing direct pedestrian access and connections to nearby public transport stations.</p>	<p>Manufacturing, installation, and operation of fast-charging EV networks.</p> <p>Development of software for managing EV fleets and optimizing charging.</p> <p>Consulting on the creation of sustainable mobility plans for business districts and corporate campuses.</p>	<p>Installation of on-site wastewater treatment systems for reuse in cooling towers and toilets.</p> <p>Implementation of Nature-based Solutions (NbS), such as constructed wetlands, for stormwater management.</p> <p>Installation of waterless fixtures (e.g., dry urinals) in high-traffic buildings.</p>	<p>Mass retrofitting of public restrooms with high-efficiency fixtures and sensor-based faucets.</p> <p>Implementation of smart irrigation systems for large green areas (parks, campuses).</p> <p>Installation of sub-meters to monitor water consumption by zone and detect leaks</p>	<p>Manufacturing of commercial-scale, modular water treatment systems.</p> <p>Providing water audit services for large consumers like hotels or hospitals.</p> <p>Consulting on the design of green infrastructure and Nature-based Solutions (NbS) for water management.</p>	<p>Use of low-carbon steel and mass timber for the primary structure of commercial buildings.</p> <p>Conducting a Life Cycle Assessment (LCA) to select materials with low embodied carbon.</p> <p>Designing interiors with modular and flexible systems to facilitate future reconfigurations without demolition waste</p>	<p>Specifying high recycled content for materials in construction contracts (steel, aggregates, etc.).</p> <p>Implementing logistics and on-site management plans to minimize construction and demolition (C&D) waste.</p> <p>Designing easily accessible, dedicated spaces for sorting and storing recyclable waste during the building's operation.</p>

GREEN INITIATIVE'S CLIMATE-MITIGATION REFERENCE CATALOGUE

SECTOR		Energy			Transport			Water management			Waste management		
		NLEA	TA	EA	NLEA	TA	EA	NLEA	TA	EA	NLEA	TA	EA
AGRICULTURE & LAND USE	Agricultural businesses	On-farm renewable energy installation: Solar (photovoltaic or thermal) or wind systems for self-consumption (e.g., pumping, irrigation).	Replacement of conventional electric motors: Swapping out standard motors for high-efficiency models in fixed equipment (pumps, conveyors, fans).	Manufacturing of clean energy equipment: Assembly or production of components for anaerobic digesters, solar pumps, or efficient irrigation systems.	Acquisition of electric machinery: Purchasing light electric tractors, cultivators, and utility vehicles (UTVs).	Adoption of GPS guidance on machinery: To optimize routes, avoid overlapping, and reduce diesel consumption.	Provision of telematics services: Installing and monitoring devices on fleets to analyze and optimize fuel consumption and maintenance.	Installation of rainwater harvesting systems: Building reservoirs and channels to store and use rainwater, eliminating the need for pumping.	Upgrade to high-efficiency irrigation: Switching to drip or micro-sprinkler systems to reduce water and energy consumption.	Manufacturing of components for high-efficiency irrigation: Production of drippers, low-pressure sprinklers, pipes, and filters.	Installation of anaerobic digesters: Treating manure to capture methane (CH4) and produce biofertilizers.	Implementation of controlled composting: Building composting facilities with temperature and aeration control to minimize methane emissions.	Manufacturing of specialized machinery: Designing and building equipment for composting, biochar production, or biomass pelletizing.
		Bioenergy generation: Use of anaerobic digesters to convert manure and waste into biogas for electricity and heat generation.	Efficiency improvements in climate control: Investing in thermal insulation for greenhouses and cold storage facilities.	Provision of energy audit services: Conducting specialized diagnostics to identify and quantify savings opportunities on farms.	Installation of charging stations: On-farm charging points powered by self-generated renewable energy.	Fleet modernization: Replacing old machinery with new models featuring more fuel-efficient, lower-emission engines.	Manufacturing of "retrofit" kits: Developing technology packages to improve the efficiency and reduce the emissions of older engines.	Implementation of gravity-fed irrigation: Designing systems that use natural topography to irrigate without requiring energy.	Implementation of laser land leveling: To ensure uniform water distribution, preventing losses from runoff and waterlogging.	Sale of monitoring technologies: Commercialization of low-cost soil moisture sensors and weather stations.	Production of biochar: Building pyrolysis kilns to transform pruning or crop residues into a soil amendment that fixes carbon.	Adoption of manure management systems: Investing in pits or treatment systems that prevent the direct emission of methane and nitrous oxide.	Production of feed additives: Developing supplements that improve livestock digestion and reduce methane content in manure.
		Sustainable biofuel production: Cultivation of raw materials and on-farm production of biofuels for use in proprietary machinery.	Installation of Variable Frequency Drives (VFDs): Equipment to regulate the speed of motors and pumps, matching energy consumption to real-time demand.	Consulting for carbon market access: Advising other farmers on how to generate revenue from their emission reductions.	Full conversion to sustainable biofuels: Transitioning the fleet to operate exclusively on second-generation biofuels.	Investment in precision agriculture equipment: Acquiring variable-rate seeders or sprayers that reduce machinery use.	Operator training and certification: Offering courses in efficient operation of agricultural machinery to reduce fuel consumption.	Installation of water treatment and reuse systems: Using treated greywater for irrigation, reducing freshwater extraction.	Implementation of smart irrigation: Using moisture sensors, drones, or satellite data to apply water only when and where it is needed.	Provision of water management services: Consulting for the design of irrigation plans, efficiency analysis, and water balances.	Sale of waste as a raw material: Selling byproducts (straw, husks, bagasse) to bio-material or advanced biofuel industries.	Investment in nutrient recycling systems: Equipment to separate and reuse nutrients from liquid and solid effluents.	Creation of circular economy platforms: Developing digital marketplaces to connect agricultural waste generators with companies that use them as inputs.

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Beyond the practical reference table presented in this guide, SMEs and financial institutions may also consult internationally recognized sustainable finance taxonomies, which serve as formal classification systems that define which economic activities can be considered environmentally sustainable or climate-aligned. These taxonomies are typically developed by governments, multilateral institutions, or regional regulatory bodies and provide detailed technical screening criteria, sector definitions, and environmental performance thresholds that help investors, lenders, and policymakers identify activities consistent with climate and sustainability objectives. In practice, sustainable finance taxonomies support transparency and comparability in financial markets by reducing the risk of greenwashing, guiding capital allocation toward low-carbon and climate-resilient investments, and helping financial institutions assess whether projects qualify for green finance instruments or sustainability-linked financing.



IFC Sustainable Finance Taxonomy Toolkit

The Sustainable Finance Taxonomy Toolkit developed by the International Finance Corporation (World Bank Group) provides practical guidance for governments, regulators, and financial institutions developing sustainable finance taxonomies. It outlines key principles, governance structures, and methodological approaches to classify environmentally sustainable economic activities and align financial systems with climate goals. The toolkit is widely used by emerging economies and supports the work of the Sustainable Banking and Finance Network (SBFN).

[Click here](#)



EU Taxonomy for Sustainable Activities

The EU Taxonomy for Sustainable Activities, developed by the European Commission, is one of the most comprehensive sustainable finance classification systems. It establishes technical screening criteria to identify economic activities that substantially contribute to environmental objectives such as climate change mitigation and adaptation. The taxonomy guides investment decisions, improves market transparency, and helps prevent greenwashing.

[Click here](#)



ASEAN Taxonomy for Sustainable Finance

The ASEAN Taxonomy for Sustainable Finance provides a regional framework to guide sustainable investment in Southeast Asia. Developed by the Association of Southeast Asian Nations, it combines a principles-based approach with sector-specific thresholds to help financial institutions identify sustainable and transition activities while supporting regional climate and development goals.

[Click here](#)



Common Framework of Sustainable Finance Taxonomies for Latin America and the Caribbean

The Common Framework of Sustainable Finance Taxonomies for Latin America and the Caribbean supports countries in developing national sustainable finance taxonomies. Developed with support from the United Nations Environment Programme and regional partners, it promotes consistency across national frameworks while allowing adaptation to local contexts, helping strengthen sustainable investment and environmental disclosure in the region.

[Click here](#)

2.2 Opportunities for SMEs

As international climate finance mechanisms increasingly prioritize private-sector engagement, SMEs are emerging as pivotal actors in the climate transition. Strengthening low-carbon competitiveness not only enhances financial resilience but also unlocks market access and new business opportunities, particularly in value chains where buyers are demanding credible emissions data and reduction strategies. At the same time, the rapid expansion of technical regulations related to GHG emissions, such as the EU Deforestation Regulation (EUDR), the EU Carbon Border Adjustment Mechanism (EU CBAM), and the UK Carbon Border Adjustment Mechanism (UK CBAM), is introducing both direct and indirect carbon costs that can materially affect market positioning. SMEs that proactively invest in mitigation through capital finance can reduce regulatory exposure, safeguard trade relationships, and position themselves for growth in an increasingly decarbonized global economy.

Improved Market Access and Supply-Chain Integration

SMEs increasingly face climate-related expectations from multinational buyers and regulators.



Over **70%** of corporate emissions come from supply chains, making supplier climate performance a top priority for international buyers²⁴.



Many global companies require Scope 3 emissions reporting from suppliers



Compliance with mechanisms like the EU Carbon Border Adjustment Mechanism (CBAM) will be essential for SMEs to maintain trade access in key sectors.

Climate alignment is no longer merely an added value and is fast becoming a necessary condition to participate in global value chains. SMEs with verified climate-performance and access to CMF are significantly more likely to be selected and retained as suppliers in a market increasingly shaped by sustainability mandates. CMF frameworks support SMEs in making the investments and building the technical capacity necessary to upgrade environmental performance, formalize reporting systems, and ensure compliance with international standards. Firms that act early will have a distinct competitive advantage, while their slower counterparts risk exclusion from procurement processes and are more vulnerable to new emissions-based trade restrictions²⁵.

²⁴ KPMG. *Unlocking the Scope 3 Opportunity*

²⁵ ERM. *Three steps to leverage your Scope 3 disclosure for value creation.*

Climate Certifications, Brand Value, and Verified Performance

Consumer demand is also shifting rapidly in favor of environmentally responsible brands. A 2023 analysis by IBM found that more than 49% of global consumers are willing to pay a premium for products and services that align with their environmental values²⁶. For SMEs in consumer-facing sectors—such as tourism, food systems, fashion, and manufacturing—verified climate-performance is becoming a decisive factor in market differentiation. Engagement in CMF enhances brand credibility, supports environmental certifications, and enables participation in sustainability-linked campaigns and procurement platforms, further amplifying visibility and trust²⁷.

Integrating climate action significantly expands access to environmental certifications and sustainability labels such as Green Initiative’s Climate Certificates, and ISO 14001 (Environmental Management Systems). These certifications increasingly serve as strategic qualifiers in competitive bidding processes and international supply chains.

For SMEs, these credentials improve eligibility for:



Green public procurement schemes,
under which governments prioritize
suppliers that meet verifiable climate and
environmental criteria;



**UN and multilateral development bank
procurement platforms**
which are scaling climate-linked
contracting in the infrastructure, logistics,
health, tourism, and food sectors; and



**Climate-linked partnerships
and funding channels,**
including ESG-driven supply chain
programs from global brands and
climate finance mechanisms that require
baseline environmental compliance.

These certifications also expand access to national and international green financing instruments. Development banks, impact investors, and blended-finance facilities increasingly request third-party verification of climate performance as part of eligibility and due diligence processes. In this sense, certification acts as a gateway both to capital and markets.



These certifications increasingly serve as strategic qualifiers in competitive bidding processes and international supply chains

²⁶ IBM. 2022 sustainability consumer research: Sustainability and profitability.

²⁷ Ghobbe, S. & Nohekhan, M. Mental Perception of quality: Green marketing as a catalyst for brand quality enhancement. *arXiv (Cornell University)* (2023) doi:10.48550/arxiv.2312.15865.

Increase Technical Capacity Through FI's Assistance

Through technical assistance provided by FIs or CMF programs, SMEs can strengthen the internal capacities needed to comply with increasingly sophisticated climate-finance due-diligence requirements. For FIs—whether development banks, impact funds, or commercial banks—investing in technical assistance for SMEs represents a high-value-for-money strategy. By supporting early capacity development, FIs help prepare their investees to access climate-mitigation finance more efficiently, reduce transaction costs, and improve the overall bankability of projects²⁸. This approach accelerates the deployment of climate-finance resources while ensuring that investment decisions are supported by robust information, credible data, and technically sound mitigation goals and investment plans.

As CMF markets mature, an increasing number of programs are integrating technical assistance components to address key capacity gaps, from GHG accounting and MRV readiness, to transition planning and compliance with climate-finance or green-bond eligibility criteria.

Evidence shows that technical assistance (e.g. project-preparation support, advisory, capacity building) can mobilize significant further capital: in one review of four programs, every €1 of technical assistance funding helped mobilize between €0.9 and €15 of public or private finance²⁹

Some basic capacity building challenges should include:



Support GHG inventory development and climate-action planning;



Improve MRV practices;



Build internal climate governance and align business strategies; and



Meet the compliance needs of FIs and regulators.

In parallel, technical assistance is often directed not only toward SMEs but also toward financial institutions themselves, particularly when building internal capabilities to originate and manage climate-aligned assets. This may include training credit teams and commercial staff on the characteristics and benefits of low-emission technologies, strengthening internal environmental and social risk-management systems, and improving procedures for evaluating climate-related investment opportunities. By strengthening both the supply side (financial institutions) and the demand side (SMEs) of the market, such programs help accelerate the development of viable climate-mitigation investment pipelines.

This approach is especially valuable when targeting SMEs or small project proponents: many lack internal technical skills, data systems, or institutional capacity to design bankable climate investments. For example, a recent assessment of green-finance mechanisms for MSMEs in Africa finds that development FIs or multilateral banks often provide (or facilitate) technical assistance support precisely to overcome such capacity constraints³⁰.

By bridging these gaps technical assistance enables SMEs to meet climate criteria and become eligible for concessional or green finance. This not only lowers transaction costs and increases viability, but enlarges the investable pipeline. As a result, FIs investing in technical assistance can strengthen their position as trusted climate-finance intermediaries; able to originate new climate-aligned assets, drive portfolio decarbonization, and scale their own role in the emerging climate-finance ecosystem.

²⁸ OECD. *Scaling up Public Financing and Non-Financial Support for SME Sustainability. OECD studies on SMEs and entrepreneurship (2025)*. doi:10.1787/bf835159-en.

²⁹ CPI. *The Role of Technical Assistance in Mobilizing Climate Finance*.

³⁰ UNEP. *Assessment of Green Financing Mechanisms for MSMEs in Africa*.

Access to Capital for Climate-Aligned Projects

SMEs that align their operations with climate goals can access a broader range of financial instruments, such as:

A



Preferential loans tied to emissions-reduction targets

B



Blended finance and concessional credit from multilateral development banks and green funds

C



Green bonds and sustainability-linked instruments provided by local commercial banks; and

D

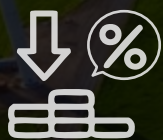


Tax incentives and carbon-performance-linked financial products.

However, these instruments are not always visible or directly accessible to SMEs. In practice, international climate-finance resources are often transmitted through domestic financial institutions, development banks, accredited entities, and public support programs. Understanding these access channels is therefore essential for SMEs seeking to translate mitigation plans into financeable investment opportunities.

TABLE. PRACTICAL ACCESS CHANNELS FOR SMES SEEKING CLIMATE-MITIGATION FINANCE

These emerging instruments are enabling SMEs to reduce the cost of capital, enhance liquidity, and make long-term investments in low-emission technologies. SMEs with credible decarbonization pathways can gain access to favorable terms, including³¹:



Lower interest rates;



Extended repayment schedules;



Reduced collateral requirements; and



Performance-based incentives.

These benefits increase liquidity and creditworthiness by reducing financial risk and strengthening SMEs' ability to manage working capital and long-term investments. They also signal to FIs that the business is aligned with climate-mitigation principles, lowering perceived risk, boosting investor interest, and opening the door to additional financial products³². As capital markets increasingly embed climate risk into pricing models, SMEs with well-defined mitigation strategies are positioned to benefit from preferential financial conditions. Conversely, SMEs without such access may face rising capital costs or credit constraints. In this context, climate alignment is not only a pathway to growth but a critical factor for financial survival and competitiveness.

³¹ ESCAP. *Advancing the Green Transition of SMEs*.

³² APEC. *Financing the SME Green Transition: Key Strategies and Financial Products in Thailand*.



Sectorial & Industrial Leadership

For SMEs, the climate transition offers a unique opportunity to lead within their industries by adopting best practices in emissions management, resource efficiency, and the integration of low-carbon technologies. Early movers can differentiate themselves in increasingly sustainability-conscious markets, gaining reputational advantages, securing preferential access to supply chains with climate requirements, and strengthening their value proposition to clients and investors. This leadership extends beyond compliance: SMEs that demonstrate credible climate action often become reference points within their sectors, shaping procurement decisions, influencing market norms, and paving the way for new business models aligned with mitigation goals.



Improving Operational Efficiency and Cost Competitiveness

For many SMEs, access to climate-mitigation finance is most attractive when investments deliver clear operational benefits alongside emissions reductions. Because most climate-finance instruments take the form of loans or blended finance rather than fully grant-funded support, SMEs must ensure that mitigation investments generate sufficient economic returns to service the financing. As a result, mitigation projects that improve resource efficiency and reduce operating costs often present the most immediate opportunities³².

In practice, many climate-mitigation investments deliver measurable savings by improving the efficiency with which firms use energy, water, materials, and other production inputs. For example, upgrading to high-efficiency motors, refrigeration systems, or lighting can translate directly into lower electricity bills. Similarly, process improvements that reduce material waste or optimize production flows can decrease raw-material consumption and lower overall operating costs.

In sectors such as agriculture or land use, the economic returns may be less immediately visible but can still emerge through improved productivity and resource efficiency. Technologies such as precision agriculture, improved irrigation systems, or optimized fertilizer management can simultaneously reduce greenhouse-gas emissions, increase yields, and lower input costs such as water, energy, or agrochemicals. When mitigation measures deliver these types of operational gains, they create a stronger business case for SMEs to adopt climate-aligned investments.

In tropical and land-constrained contexts, these gains can be especially significant. Restoring productivity on already-cleared or degraded land can help SMEs increase output without expanding the agricultural frontier, thereby strengthening the business case for CMF-supported land restoration. In such cases, the mitigation value extends beyond lower input intensity or direct sequestration: it also lies in reducing structural pressure for future land conversion.



³² Arbache, J. & SEBRAE. (2026). Sustentabilidade, Mudança do Clima e Oportunidades Econômicas para as Micro, Pequenas e Médias Empresas.

2.3 Unleashing Climate-Mitigation Financing

2.3.1 Principles for Financial Institutions

Ensuring that CMF delivers a measurable impact requires adhering to fundamental principles that shape investment strategies and funding mechanisms. Green Initiative proposes these guiding principles to serve as a reference point for all categories of FIs, including commercial banks, impact investment funds, and national or regional development banks. By grounding their decisions in these principles, FIs can allocate capital more responsibly and drive climate outcomes that are impact-oriented, credible, scalable, and consistent with emerging global standards³³.



FIs at all levels must recognize their unique roles in climate finance

While international FIs such as the World Bank provide strategic oversight, concessional capital, and technical support, regional and local FIs play a critical role in contextualizing CMF deployment. They align credit-risk evaluations, disclosure requirements, and pipeline development with market-based climate expectations and emerging taxonomies.



Transparency and Accountability

Climate finance flows must be traceable, reportable, and outcome-oriented. This includes adopting the best international practices in disclosure, such as the Task Force on Climate-related Financial Disclosures (TCFD) and adhering to Organisation for Economic Cooperation and Development (OECD) and International Development Finance Club principles. Robust monitoring and verification ensure that CMF achieves its stated GHG mitigation targets and supports integrity in the financial ecosystem.



Effectiveness and Efficiency

CMF should optimize the use of public and private capital to generate measurable and scalable GHG reductions while enhancing co-benefits like resilience, inclusion, and innovation. FIs can play a key role in this process by developing green lending products with competitive interest rates and by offering simplified access to climate-aligned borrowers, thereby accelerating the decarbonization of their portfolios.



³³ UNEP FI. The Principles for Responsible Banking.



Accessibility and Equity

CMF must be inclusive. It should be accessible not only to large corporations but also to SMEs, informal actors, and underserved regions. Funds should be channeled using blended finance, guarantee schemes, and local financial intermediaries to ensure an equitable distribution of resources across sectors and geographies.



FIs can support aggregation and intermediary models

FIs should recognize that many mitigation opportunities, especially among small agricultural producers and rural SMEs, cannot be financed efficiently through one-by-one origination. Partnerships with cooperatives, producer organizations, anchor firms, technical assistance providers, and specialized project aggregators can help standardize project design, reduce due-diligence costs, organize MRV, and create investable portfolios of climate-aligned activities.



Alignment with Global Trade Regulations and Sectoral Priorities

CMF helps SMEs align with climate-related trade measures and sector-specific decarbonization pathways. These include frameworks like the EU's CBAM, UK CBAM, and World Trade Organization-compatible environmental labeling. Enabling firms to comply with these evolving standards ensures that climate action becomes a competitive advantage in the global economy.



Enabling firms to comply with these evolving standards ensures that climate action becomes a competitive advantage in the global economy.

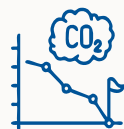
2.3.2 Principles for SMEs

To ensure that investments in SMEs effectively contribute to global decarbonization efforts and meet the eligibility criteria for CMF, Green Initiative proposes the following evidence-based principles. These principles are aligned with leading frameworks such as the Paris Agreement, the Task Force on Climate-related Financial Disclosures (TCFD), and national sustainability taxonomies.



Alignment with International Standards and Sectoral Policies

SMEs should apply international norms for GHG measurement and accounting such as ISO 14064. This standard provides a practical and widely recognized approach to quantifying and reporting GHG emissions, helping SMEs prepare their data in ways that meet the expectations of FIs and regulators. ISO-based frameworks offer SMEs a well-defined structured pathway to engage in mitigation finance credibly and consistently. Adhering to these frameworks can help SMEs define a consistent case for CMF access based on clear, measurable, and financeable decarbonization opportunities.



MRV

SMEs must quantify their GHG emissions using internationally recognized methodologies. GHG inventories should include Scope 1 emissions (direct emissions from owned sources), Scope 2 emissions (indirect emissions from purchased energy), and Scope 3 emissions (indirect emissions from the value chain). Tools such as Green Initiative's GHG emissions calculator and the Joint Impact Model allow SMEs to generate estimates tailored to their sector and business model. Credible decarbonization pathways require regular monitoring and time-bound climate action plans. Working with partners such as Green Initiative can improve data integrity and expand access to sustainability-linked financial instruments.



Transparency and Accountability

Transparent disclosure of climate performance is essential to building trust with FIs, regulators, and clients. Frameworks like the TCFD and reporting frameworks offered by Green Initiative allow SMEs to report climate-related risks, mitigation activities, and CMF-related indicators. A 2025 UNCTAD report on SME climate disclosure indicated that early adopters of climate transparency gain enhanced access to green credit lines and investor networks³⁴.



³⁴ UNCTAD. Sustainability Disclosure for SMEs in Developing Economies. https://unctad.org/system/files/official-document/diae2024d3_en.pdf (2025).



Strategic Communication and Market Visibility

Robust communication strategies rooted in climate performance data enable SMEs to distinguish themselves in increasingly competitive sustainability-driven markets. Climate communications strategies that emphasize local relevance and inclusivity are more likely to inspire action and build consumer loyalty³⁵. While quantifiable metrics vary and comprehensive data across sectors remain limited, the literature consistently suggests that green branding and inclusive, locally relevant sustainability messaging are effective tools for building long-term consumer relationships, especially among environmentally conscious segments, and can provide meaningful competitive differentiation.



Enabling Finance and Policy Alignment

Multilateral climate-finance institutions such as GCF and GEF are expanding mechanisms explicitly designed to reach SMEs and MSMEs. For example, GCF's MSME funding window welcomes enterprises at any stage, including small- and medium-size firms operating in supply chains for mitigation and adaptation goods and services³⁶. At the same time, international and national policy frameworks, including those championed by the OECD, increasingly encourage "greening" SMEs, and recognise that public procurement, sustainable supply-chain integration, and green trade demand create strategic opportunities for climate-aligned small firms³⁷.

One concrete result is that many governments now include environmental criteria in public procurement: as of 2024, about 92% of OECD and accession-country governments have adopted a Green Public Procurement (GPP) framework³⁸. Meanwhile, the growing availability of climate-mitigation finance, including blended finance, concessional credit, and other instruments tailored to SMEs, further lowers barriers for climate-aligned SMEs to obtain capital for investments in green technologies, adaptive capacity, or sustainability-compliant production³⁹.



A 2025 UNCTAD report on SME climate disclosure indicated that early adopters of climate transparency gain enhanced access to green credit lines and investor networks

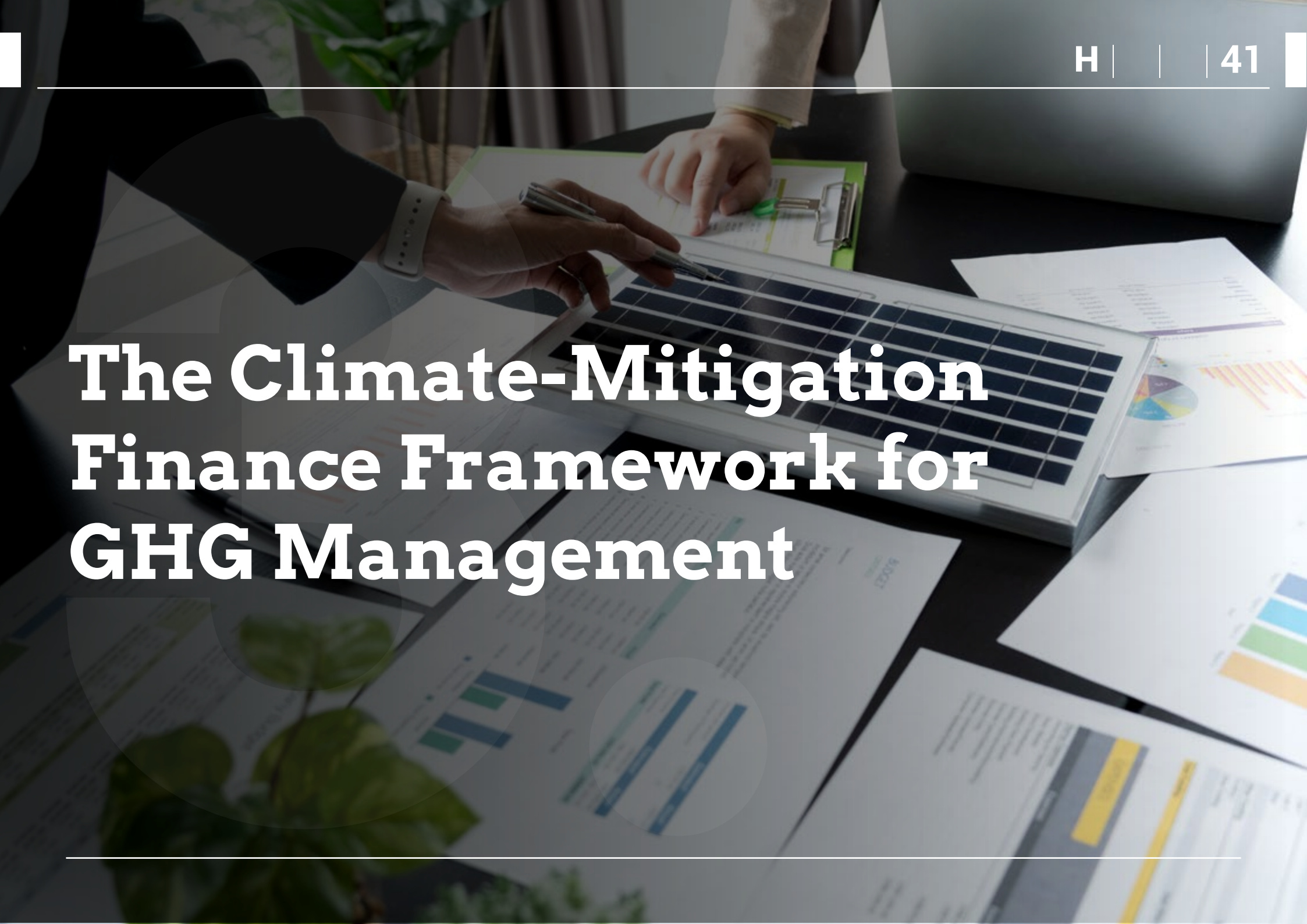
³⁵ Agu et al., N. T. I. Exploring the relationship between sustainable business practices and increased brand loyalty. *International Journal of Management & Entrepreneurship Research* 6, 2463–2475 (2024).

³⁶ Green Climate Fund. Micro, Small, and Medium sized Enterprises Pilot Programme.

³⁷ OECD. Greening SMEs.

³⁸ OECD. *Harnessing Public Procurement for the Green Transition*.

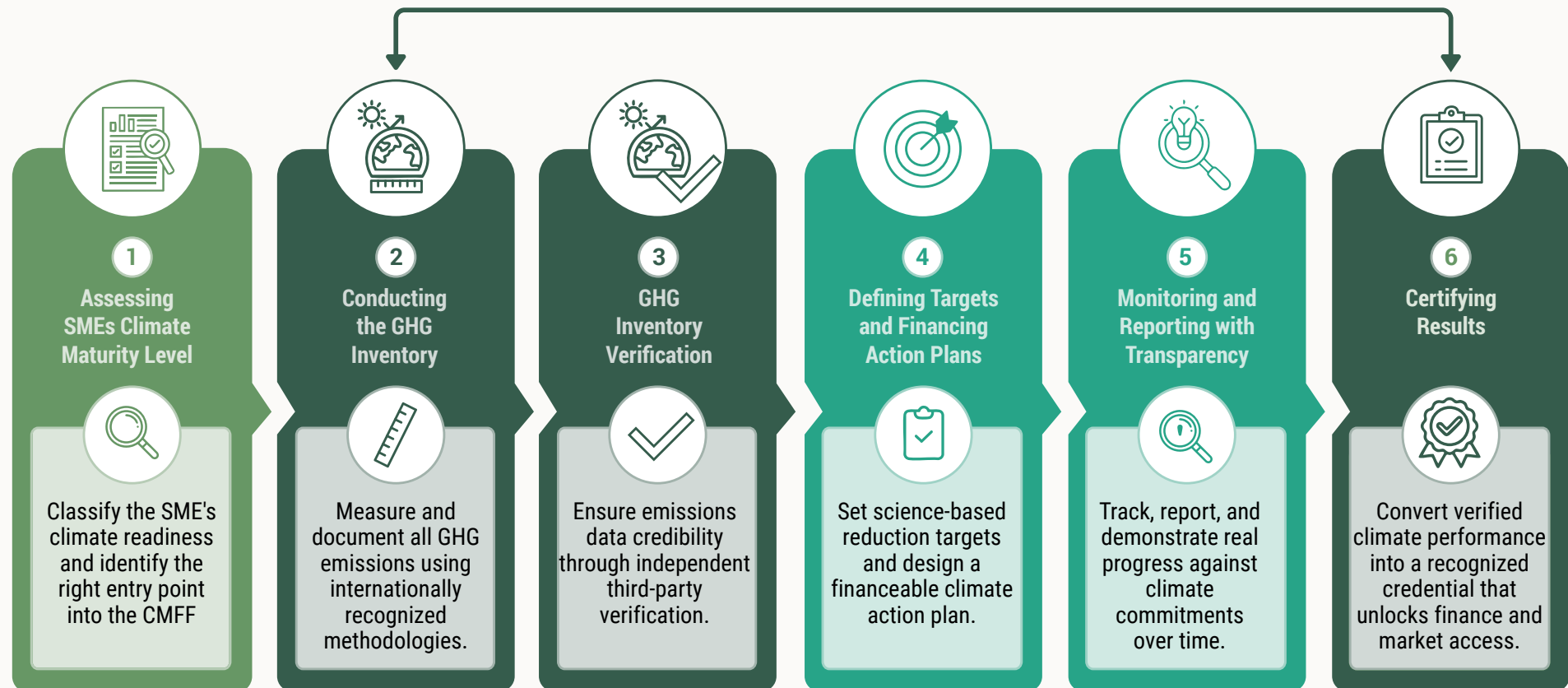
³⁹ World Bank Group. *Guidelines for Integrating Climate Change Mitigation and Adaptation in Public Credit Guarantee Schemes for Small and Medium Enterprises*.

A photograph of a business meeting. In the foreground, a person's hand in a dark suit sleeve holds a silver pen, pointing at a laptop screen. Another person's hand is visible, pointing at a document on a clipboard. The desk is cluttered with various documents, including one with a colorful bar chart and another with a pie chart. A laptop is open in the center. The background shows a blurred office environment with a plant and curtains. The overall scene is dimly lit, with a focus on the hands and the documents.

The Climate-Mitigation Finance Framework for GHG Management

The Climate-Mitigation Finance Framework (CMFF) integrates six components to form a comprehensive system for managing and monitoring the GHG emissions associated with any climate-mitigation action in SMEs. It provides a structured methodology that helps FIs understand the elements that constitute an investible climate-mitigation project, particularly in relation to GHG-emissions measurement. The framework also serves as a practical guide for technical teams in SMEs, enabling them to comply with international standards and generate well-measured, comparable emission-reduction metrics.

Figure 3. Components of the CMFF



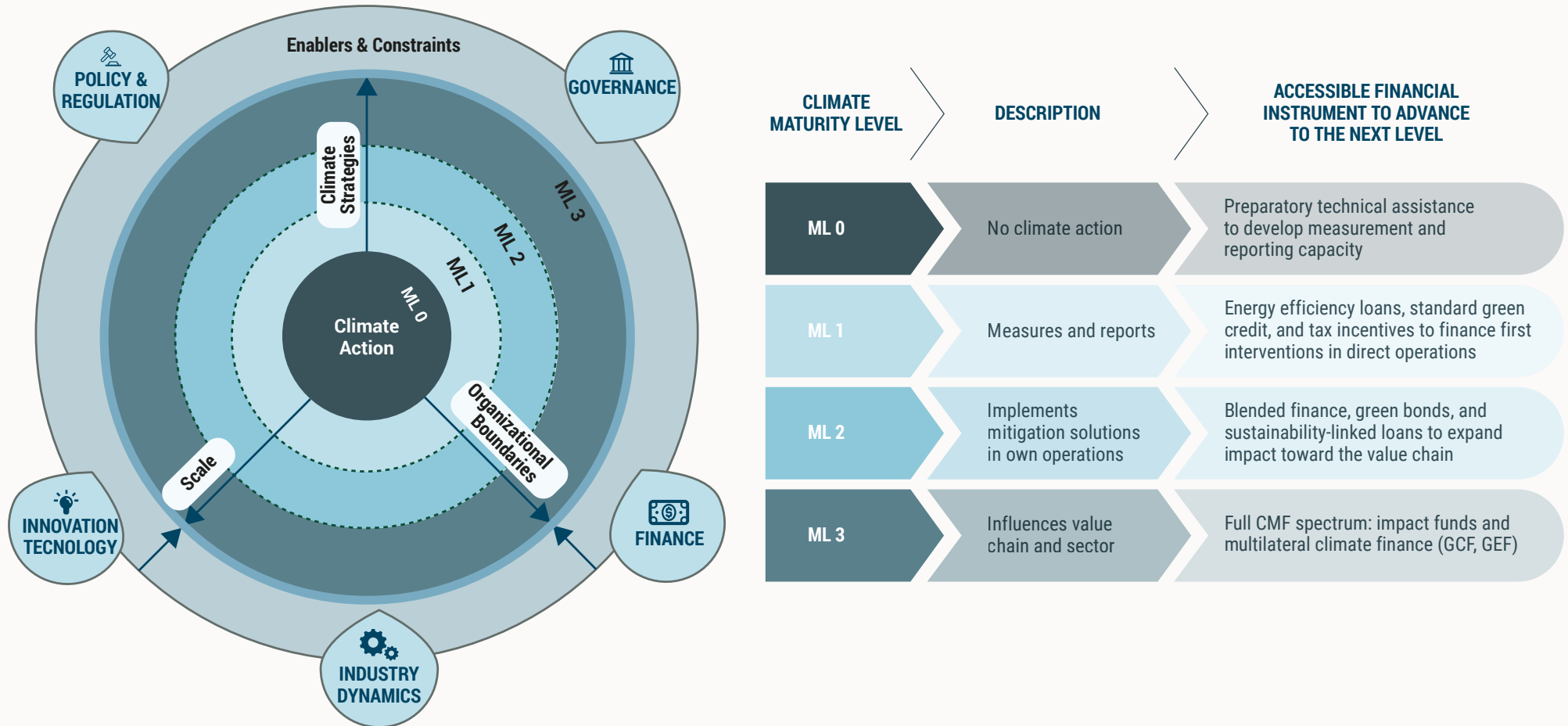
Source: Green Initiative (2025)

3.1 Assessing the Maturity Level of SMEs

The first component of this framework is an assessment of an SME's climate maturity level (CML), which reflects how prepared the firm is to take effective climate action. The CML classifies organizations based on several dimensions of climate performance, including policies, institutional commitments, the implementation of climate-mitigation practices, and the ability to measure and reduce emissions. The CML ranks SMEs along a continuum, from those at the initial stages of climate action to those that demonstrate advanced integration of mitigation strategies across their operations and value chains. The CML classification also helps FIs identify technical capacity gaps among prospective borrowers and facilitates performance-monitoring against CMF goals.

Climate Maturity Level	Description	Accessible financial instrument to advance to the next level
ML0: No Climate Action	The organization has no active mitigation policies, commitments, or practices. It does not measure or report its GHG emissions. There is no internal capacity to manage climate data or comply with the reporting requirements of a financial institution.	Preparatory technical assistance provided by the FI or by specialized programs such as those offered by Green Initiative. This assistance covers the initial emissions diagnosis, training of internal teams in basic measurement methodologies (GHG Protocol, ISO 14064-1), and the implementation of calculation tools such as GREENIA.
ML1: Measurement and Reporting	The organization measures and reports its climate performance, but has not yet implemented significant operational changes. It has a GHG inventory (including all 3 scopes), can document an emissions baseline, and has the capacity to report to a financial institution.	Energy efficiency loans, standard green credit lines, and tax incentives linked to documented operational improvements. These instruments finance the organization's first concrete investments in its direct operations: equipment replacement, improvements in lighting or refrigeration systems, or installation of small-scale renewable energy sources. Eligibility requirements can be met through evidence of the existing GHG inventory and a short-term action plan (1–2 years).
ML2: Direct Operations	The organization measures, reports, and implements mitigation solutions and practices within its own operations. It has defined reduction targets, an active climate action plan, and an internal monitoring system. Its GHG inventory has been or can be independently verified.	Blended finance, green bonds, and sustainability-linked loans aimed at financing the expansion of climate impact beyond the organization's own operations: supplier engagement programs, development of low-carbon supply chains, and collaboration with clients and other sector stakeholders to reduce Scope 3 emissions. These instruments require quantifiable targets, and documented KPIs – conditions that an ML2 organization is capable of meeting.
ML3: Indirect Operations	The organization operates at ML 2 and actively influences the value chain and the sector, leading changes that involve multiple stakeholders. Its GHG inventory includes Scope 3 emissions, it has supplier and customer engagement programs, and it demonstrates climate impact beyond its direct operations.	The full CMF spectrum, including larger-scale blended finance, issuance of proprietary green bonds, impact investment funds, and multilateral climate finance mechanisms such as the Green Climate Fund (GCF) and the Global Environment Facility (GEF). Demonstrable sector leadership at ML3 also facilitates access to green public procurement programs and to the value chains of multinational corporations with Scope 3 reduction commitments.

Figure 4. Climate Maturity Assessment Framework



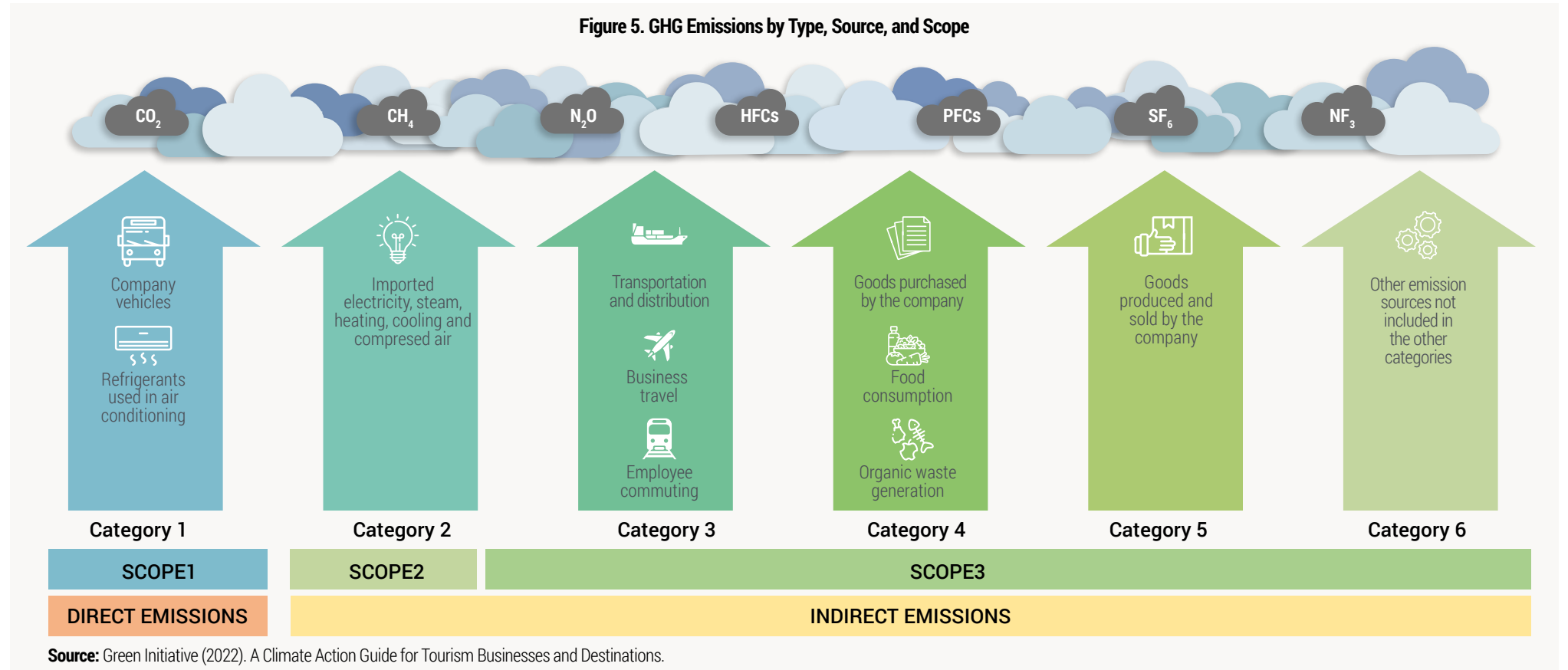
Source: Green Initiative 2024

3.2 Conducting a GHG Inventory

The second component is a reliable and accurate GHG inventory to underpin financing decisions. This inventory quantifies emissions and helps identify potential areas for reduction, enabling more targeted and impactful investments.

3.2.1 GHG inventory

Preparing a GHG inventory involves the systematic collection, estimation, and analysis of data related to emissions sources and sinks. The process focuses primarily on carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), with the goal of quantifying emissions over a defined period. A GHG inventory should identify emissions across all three standard scopes: Scope 1 emissions (direct emissions from owned sources), Scope 2 emissions (indirect emissions from purchased energy), and Scope 3 emissions (indirect emissions from the value chain).



A well-prepared GHG inventory enables entities to establish evidence-based climate policies, set science-based emissions-reduction targets, and develop effective mitigation plans. It also supports broader strategic decision-making, improves communication with investors, clients, and regulators, allows SMEs to monitor progress toward climate goals, and prepares them to participate in market mechanisms or comply with increasingly demanding reporting requirements.



Establishing ambitious yet achievable emissions-reduction targets;



Designing effective mitigation strategies and a corresponding climate action plan; and



Providing the necessary assurance for making climate-finance decisions.

3.2.2 Key Elements of a GHG Inventory

A robust GHG inventory is guided by key quality-assurance factors such as transparency, consistency, comparability, completeness, and accuracy, as outlined by international standards like the IPCC Guidelines, the GHG Protocol, and ISO 14064. These five technical aspects ensure that reliable data can be used for decision-making, reporting, and the design of CMF strategies.



Relevance:

GHG reporting should accurately reflect the emissions generated by the organization's activities and consumption patterns, and it should support internal decision-making regarding policies and management systems. This principle applies when selecting data sources and determining and prioritizing improvements in data collection.



Completeness:

Organizations must report all emissions sources within the inventory boundary. Any omission of an emissions source must be clearly justified and explained.



Consistency:

Emissions calculations must be consistent in approach, boundary, and methodology to enable meaningful documentation of changes over time, trend analysis, and comparisons with other organizations. Any deviation from preferred methodologies must be disclosed and justified.



Transparency:

Activity data, emission factors, and accounting methodologies require proper and well-referenced documentation to enable verification. The information should be sufficient to allow reviewers to use the same data sources and obtain the same results. All omissions must be clearly identified, reported, and justified.



Accuracy:

GHG emission calculations should neither overestimate nor underestimate the actual number of emissions. Accuracy should be sufficient to reasonably assure decision-makers and the public of the integrity of the reported information.

3.2.3 Scope of Climate-Mitigation Finance

Defining Climate-Mitigation Finance (CMF) requires establishing clear boundaries regarding which activities, projects, and financial instruments qualify as climate-aligned. This includes identifying eligible and excluded activities, distinguishing between greenfield and brownfield investments, and ensuring that financed actions demonstrate additionality.



Scope and Boundaries:

CMF covers a broad range of mitigation-related interventions and financing mechanisms. Eligible applications may include standalone projects, sectoral programs, policy-based initiatives, awareness-raising and capacity-building activities, and intermediary-financed actions. Likewise, CMF may be delivered through various financial instruments, including loans, guarantees, equity investments, green bonds, blended finance structures, and other climate-aligned mechanisms.



Exclusions:

Activities that support upstream and midstream fossil-fuel operations, carbon-based power generation, or deforestation are ineligible, including all related exploration, production, processing, transport, and refining. Carbon capture for enhanced oil recovery is also excluded, except when used to reduce fugitive emissions or process waste gases.



Greenfield vs. Brownfield Projects:

CMF may support both greenfield and brownfield investments, provided they contribute to measurable climate-mitigation outcomes.

- Greenfield projects involve new sites or facilities with predominantly new equipment, even if some decommissioned components are replaced.
- Brownfield projects modify or upgrade existing systems, facilities, or processes. A facility undergoing phased retrofitting may be considered a series of brownfield projects⁴⁰.



Additionality:

A fundamental principle for determining whether an activity qualifies for CMF is additionality, the requirement that the financed activity would not have occurred without the climate finance intervention. This principle, established in the Common Principles for CMF Tracking of the World Bank Group, ensures that climate finance generates genuine incremental impact beyond business-as-usual scenarios, and prevents the allocation of limited climate resources to activities that would have taken place regardless of the financial support received.

For an activity to be considered additional, the SME must be able to demonstrate that the investment faces real barriers, financial, technical, or informational, that would prevent its implementation without CMF support, and that the activity goes beyond what is required by existing regulations or standard market practice in the relevant sector. FIs should incorporate additionality assessment as a standard step in their CMF due diligence process, evaluating each proposed activity against the following criteria before approving climate-aligned financing.

⁴⁰ Blackridge. Understanding the difference between greenfield and brownfield developments.

Additionality Assessment Checklist:

Before classifying an activity as eligible for CMF, both SMEs and FIs should be able to affirmatively answer the following questions:



Financial barrier:

▶ ***Would the activity be financially unviable or significantly delayed without CMF support?***

▶ This includes situations where the upfront investment cost, risk profile, or payback period makes the project unattractive under conventional financing conditions.



Regulatory threshold:

▶ ***Does the activity go beyond what is legally required by existing environmental regulations, sector-specific standards, or mandatory compliance frameworks applicable to the organization?***



Common practice barrier:

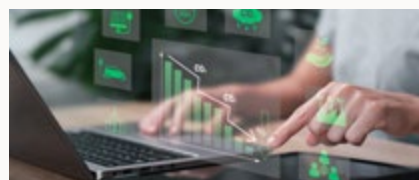
▶ ***Is the activity not yet standard practice in the relevant sector or market?***

▶ If the majority of comparable organizations in the same sector are already implementing the same measure without climate finance support, additionality may be difficult to demonstrate.



Technological or informational barrier:

▶ ***Does the SME face genuine constraints in accessing the technology, knowledge, or technical capacity required to implement the activity without external support?***



Counterfactual scenario:

▶ ***Can the SME demonstrate, with reference to its GHG baseline established in Component 2, that the emissions reductions generated by the activity would not have occurred under a business-as-usual trajectory?***

If one or more of these questions cannot be answered affirmatively, the activity should be reassessed before being classified as CMF-eligible. Partial additionality, where some but not all barriers are present, should be documented transparently and evaluated on a case-by-case basis by the FI.



Establishing a GHG emissions baseline:

A robust GHG emissions baseline is a crucial element of CMF, as it provides the frame of reference against which emission reductions are measured and climate finance effectiveness is assessed. The process of establishing a baseline begins by clearly defining parameters that delineate which emission sources are covered in the assessment. These parameters include:



Geographical Scope:

The physical locations and facilities that are included in the emissions calculations.



Time Period:

A representative year of historical data or the projection of an emissions trajectory based on assumptions established under justifiable criteria.



Emissions Scope:

- **Scope 1:** Direct emissions from owned or controlled sources.
- **Scope 2:** Indirect emissions from purchased energy.
- **Scope 3:** Other indirect emissions arising from the value chain.



Operational Scope:

The activities, systems, and processes encompassed by the emissions assessment.



Organizational Scope:

Which parts of an organization are covered by the assessment, which is especially important for complex organizations with subsidiaries or joint ventures.

FIs and project developers must select an appropriate baseline methodology that aligns with internationally recognized standards such as the GHG Protocol, ISO 14064-1, or sector-specific methodologies approved under frameworks like the Clean Development Mechanism or various carbon-market standards.

Data collection is the most resource-intensive aspect of establishing a baseline, as it involves obtaining comprehensive information on fuel and electricity consumption, industrial production volumes, and a host of other activities, each multiplied by the appropriate emissions factor. This process demands rigorous documentation, along with uncertainty assessments, to ensure data quality and reliability. For projects with incomplete historical data, standardized approaches like benchmarking against industry averages, using proxy data from comparable facilities, or employing modeling techniques may be necessary.

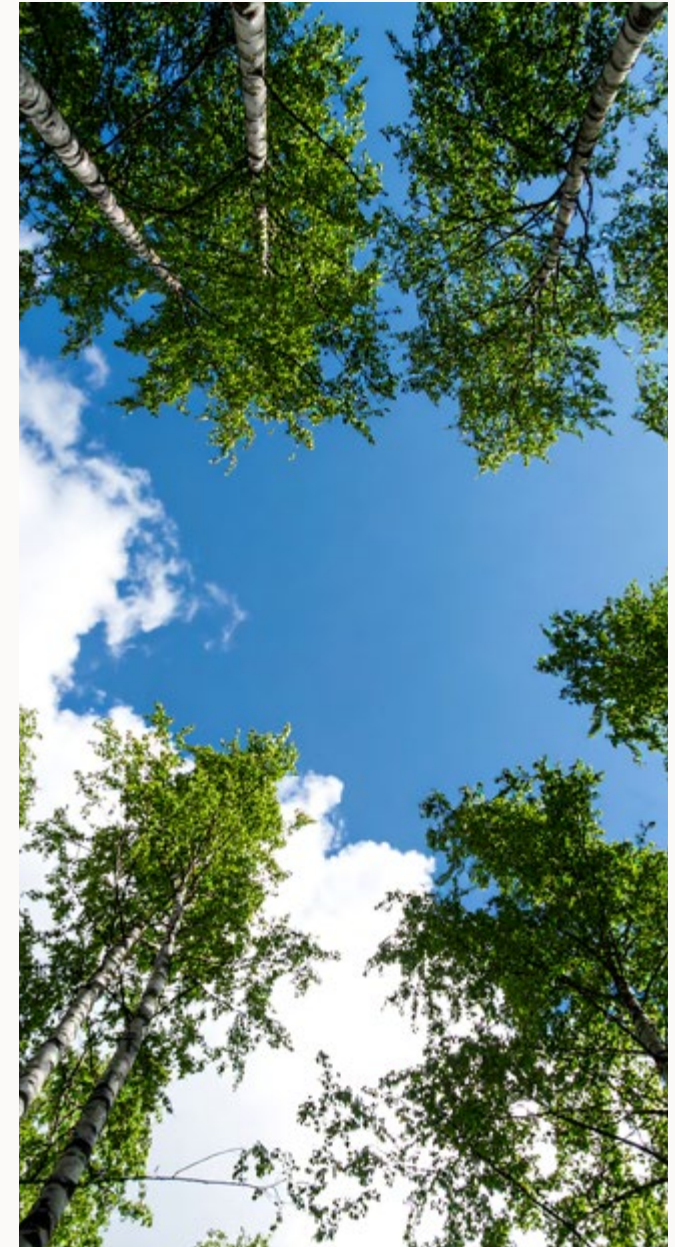
Constructing a baseline scenario requires developing a counterfactual “business-as-usual” trajectory that represents what would have occurred without the climate finance intervention. The process entails analyzing technological adoption trends, regulatory landscapes, market conditions, and economic factors that influence emissions pathways. FIs increasingly employ scenario

analysis to model multiple potential business-as-usual counterfactuals based on varying assumptions about economic growth rates, technological diffusion, and policy implementation timelines. The baseline scenario must be sufficiently conservative to avoid overestimating emission reductions while remaining realistic.

The baseline development process culminates in independent verification, with third-party experts reviewing the methodology, data, calculations, and uncertainty assessments to ensure their accuracy, completeness, and compliance with applicable standards. This verification establishes the credibility necessary for emissions reductions to be recognized in climate finance reporting and carbon markets. A comprehensive approach to baseline establishment ensures that CMF delivers genuine environmental benefits and supports the transition to a low-carbon economy through targeted and measurable interventions.



Data collection is the most resource-intensive aspect of establishing a baseline, as it involves obtaining comprehensive information on fuel and electricity consumption, industrial production volumes, and a host of other activities, each multiplied by the appropriate emissions factor



3.3 GHG Inventory Verification

The third component focuses on the independent verification of the GHG inventory, ensuring that emissions data collection and analysis meet international standards. As noted in this guide, MRV is widely recognized as the primary bottleneck to accessing CMF. Verification is the element of MRV that most directly determines whether an SME's emissions data is credible enough to support a financing decision by an FI. Independent verification of the GHG inventory helps ensure quality, enhances the credibility of emissions assessments, and reduces the information asymmetry between SMEs and FIs. It should be understood as an independent, evidence-based assessment of a historical GHG statement, distinct from validation, which concerns the plausibility of prospective claims or future-oriented projections such as emissions reduction targets or mitigation project baselines.

Verification within the CMFF is anchored in two internationally recognized normative families: the GHG Protocol Corporate Standard, which governs how the inventory is built, and the ISO 14064 family, which governs how it is verified. Within this family, ISO 14064-1:2018 establishes the requirements for the quantification and reporting of organizational GHG inventories, while ISO 14064-3:2019 establishes the procedures, evidence requirements, and assurance levels applicable to the verification engagement. These are complemented by ISO 14065:2020, which sets the accreditation requirements that the verification body itself must meet to be considered competent and impartial; ISO 14066:2023, which addresses the competence requirements of individual verification team members and technical experts; and ISO/IEC 17029:2019, which establishes the broader principles of competence, consistent operation, and impartiality applicable to all validation and verification bodies. Together, these standards ensure that the verification provides a systematic, objective, and evidence-based assessment of



the inventory against the five quality principles established in Component 2, relevance, completeness, consistency, transparency, and accuracy.

A credible verification engagement is also risk-based and guided by materiality. Rather than examining every data point with the same depth, the verifier concentrates evidence-gathering procedures on the areas where the risk of material misstatement is highest; typically high-emitting sources, complex or estimation-heavy calculations, Scope 3 categories, changes in organizational boundaries, and areas with weak internal controls. An error or omission is considered material when it could reasonably influence the decisions of the intended users of the inventory, including the FI; materiality is therefore both quantitative (the magnitude of the misstatement relative to total emissions) and qualitative, meaning whether the misstatement affects a key claim, compliance with reporting criteria, or the interpretation of mitigation performance. Beyond the validation of figures, independent verification offers an impartial expert perspective that highlights areas for



Verification within the CMFF is anchored in two internationally recognized normative families: the GHG Protocol Corporate Standard, which governs how the inventory is built, and the ISO 14064 family, which governs how it is verified

improvement in the GHG calculation methodology and in the data-management system. The engagement concludes with a formal verification statement that uses a graded scale of outcomes, ranging from satisfactory to denied; the detailed mechanics of this process, including how FIs should interpret each outcome for financing purposes, are developed in Section 3.3.2.

SMEs and FIs do not need to manage these standards directly; they are implemented by the professional verifier engaged for the engagement. The following paragraph is provided for reference, so that both parties understand the normative context within which the verifier operates.

The assurance landscape for GHG and sustainability information is also evolving, and SMEs and FIs should be aware of the transition currently underway. In parallel to the ISO standards, the audit and assurance profession applies the International Standard on Assurance Engagements (ISAE) 3410, Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board (IAASB); the global body that develops standards for audit, assurance, and quality management. ISAE 3410 has been, until now, the dedicated international assurance standard used by audit firms when issuing assurance opinions on GHG statements. However, the IAASB has issued the International Standard on Sustainability Assurance (ISSA) 5000, General Requirements for Sustainability Assurance Engagements, which becomes effective on 15 December 2026 and applies broadly to sustainability assurance (including GHG accounting information) replacing ISAE 3410. Engagements initiated after that date will increasingly be conducted under ISSA 5000. Within the CMFF, verification conducted under either the ISO 14064-3 route or the ISAE/ISSA route is acceptable, provided the engagement satisfies the principles set out in this section.



3.3.1 Levels of Verification

ISO 14064-3 establishes two levels of verification assurance, both of which are valid within the CMFF. The appropriate level is selected by the SME and the verifier and, where relevant, the FI, during the scope-definition stage of the engagement (see Step 2 in Section 3.3.2), and should reflect the organization's climate maturity, the complexity of its GHG inventory, and the requirements of the FI or climate finance program being accessed.

Limited assurance:

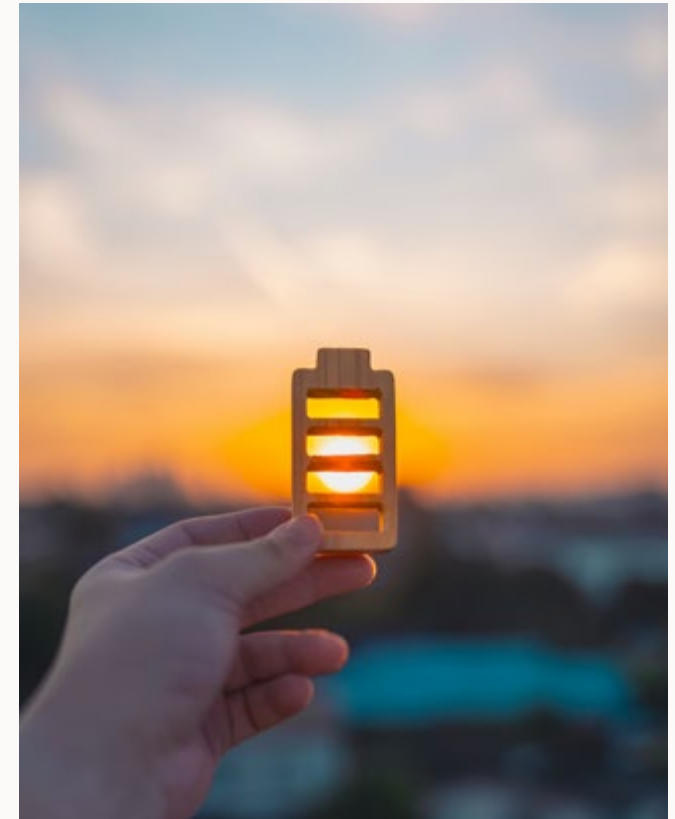
It involves a review of the GHG inventory focused on identifying whether anything has come to the verifier's attention that would suggest the inventory is materially misstated. It relies primarily on analytical procedures, inquiry, and selective testing rather than exhaustive recalculation, which makes it less time-intensive and more cost-accessible for SMEs at early stages of their climate journey. It is suitable for organizations at ML1 beginning to engage with FIs, or for initial verification cycles where full reasonable assurance is not yet required or proportionate to the size of the financing being sought.

Reasonable assurance:

It involves a more rigorous and comprehensive examination of the GHG inventory, providing a higher level of confidence that the reported emissions are free from material misstatement. It requires detailed testing of data sources, emission factors, calculation methodologies, and the internal controls supporting the inventory, and typically includes site visits and independent recalculation of significant emission sources. It is recommended for organizations at ML2 and ML3 seeking access to more complex CMF instruments such as green bonds, blended finance, or multilateral climate funds, where verification credibility is a central eligibility criterion. Regardless

of the level selected, the verifier must meet the same independence and competence requirements set out in ISO 14065 and ISO 14066, and the resulting verification statement follows the same graded outcome scale described in Section 3.3.2. The difference between the two levels lies in the depth of evidence gathered and the strength of the conclusion expressed.

The choice between limited and reasonable assurance should also be guided by the principle of proportionality: verification expectations within the CMFF are calibrated to the use of the emissions information, the size and complexity of the SME, the financing instrument involved, and the materiality of the data underpinning the financing decision. For an SME at ML1 seeking a working-capital green loan, limited assurance over a focused Scope 1 and 2 inventory may be entirely fit-for-purpose. For an SME at ML3 issuing a sustainability-linked instrument whose pricing depends on emissions performance, reasonable assurance over the full inventory (including material Scope 3 categories) is the proportionate response. Organizations are encouraged to evaluate both levels and select the one most appropriate to their context, keeping in mind that progressing toward reasonable assurance strengthens long-term access to a broader range of CMF instruments and signals organizational maturity to capital providers.

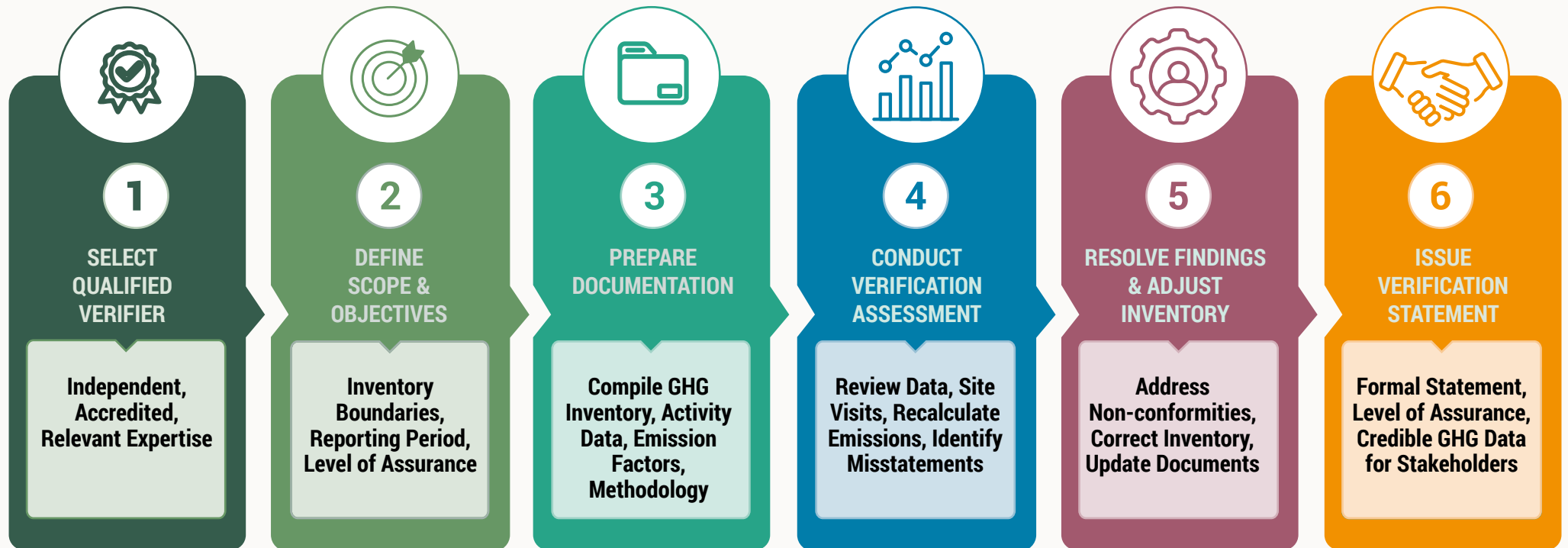


ISO 14064-3 establishes two levels of verification assurance, both of which are valid within the CMFF

3.3.2 Step-by-Step Verification Process

The following six-step process guides SMEs and FIs through the verification of a GHG inventory in alignment with GHG Protocol and ISO 14064-3 standards.

**6-STEP GHG INVENTORY VERIFICATION PROCESS
(ISO 14064-3 / GHG PROTOCOL ALIGNMENT)**



Source: Green Initiative (2025)



STEP 1

SELECT A
QUALIFIED
VERIFIER

- ▶ The SME or FI identifies and engages an independent, qualified third-party verifier with demonstrated expertise in GHG accounting and the relevant sector. The verifier must have no conflict of interest with the organization being verified. Relevant qualifications to look for include accreditation under ISO 14065, experience with GHG Protocol methodologies, and familiarity with the sector's specific emission sources and activity data. The verifier should be engaged before the inventory is finalized, as early involvement can reduce errors and improve data quality.

When the SME has used a third-party calculation tool or a consultant-developed model to build its inventory, the verifier should be able to assess the tool's underlying methodology and challenge non-standard categorizations. SMEs that cannot justify the methodological choices embedded in their tool, for example, why a given source has been assigned to a particular scope, face significant verification risk and should expect such choices to be flagged as findings.



STEP 2

DEFINE THE
VERIFICATION
SCOPE AND
OBJECTIVES

- ▶ The SME and verifier agree on the scope of the verification, including the inventory boundary (organizational and operational), the reporting period, the GHG gases and emission sources covered, and the level of assurance to be achieved (limited or reasonable). The objectives should also clarify the intended use of the verification statement, for example, whether it will be submitted to an FI as part of a CMF application, used for public reporting, or submitted to a carbon market standard.

For organizations with multiple facilities, the scope must explicitly enumerate each site to be verified (e.g., agricultural fields, processing facilities, distribution centers, corporate offices). Each site may have different activity data systems, different reliability of records, and different levels of metering, these distinctions should be made explicit at the scoping stage rather than discovered during assessment.



STEP 3

PREPARE
DOCUMENTATION

- ▶ The SME compiles and submits to the verifier all documentation required for the verification process. This includes the complete GHG inventory report with emission calculations and supporting data, activity data records (energy bills, fuel consumption logs, production records, travel records, waste data), emission factors and their sources, a description of the calculation methodology and any assumptions made, and records of any restatements or methodology changes from previous reporting periods. Complete and well-organized documentation is the single most important factor in reducing verification time and cost.

Documentation requirements extend beyond invoices and consumption records. For a verification to proceed efficiently, the SME should also prepare:

- Per-gas disaggregation of emissions (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃), not only aggregated tCO₂eq totals.
- Separate reporting of biogenic CO₂ emissions (e.g., from biomass combustion, fermentation, or composting processes) distinct from anthropogenic non-biogenic emissions.

- Technical specifications of fuels consumed (e.g., diesel grade, gasoline octane rating), with units consistently expressed and reconciled across invoices and the inventory.
- Reconciled physical asset inventories, for refrigerants, the count and type of equipment in the GHG inventory must match the count maintained in the organization's asset registry.
- Technical data sheets for material inputs whose composition affects emission calculations, for example, the carbon content of process feedstocks, the active ingredient concentration of industrial chemicals, the refrigerant type and GWP of HVAC equipment, or the nitrogen percentage of agricultural fertilizers.
- Logistics records for transport-related sources, including origin-destination pairs, number of trips, vehicle load capacity, and weight transported per trip, invoices alone are insufficient.
- Mass-balance reconciliation between materials purchased (e.g., packaging) and waste generated, to demonstrate completeness and avoid double counting or omissions.
- Documentation of the GWP version applied (e.g., IPCC AR6 for reporting periods from 2021 onward) and the source and vintage of each emission factor used.

In real-world practice, raw documentation archives frequently contain duplicate invoices, inconsistent file naming, billing periods that do not align with invoice issuance dates, and a mix of consolidated and site-level records covering the same period. Before submission, the SME should deduplicate files, reconcile billing-period versus issuance-date conventions, and clearly flag any data points that are estimated or projected rather than metered. A single year of electricity records for a three-site organization can easily exceed forty documents; investing time in pre-submission organization is the highest-leverage action an SME can take to compress verification time and cost.

**STEP 4****CONDUCT THE VERIFICATION ASSESSMENT**

- ▶ The verifier performs a systematic, risk-based review of the submitted documentation, concentrating evidence-gathering effort on areas where the risk of material misstatement is highest, typically high-emitting sources, complex or estimation-heavy calculations, Scope 3 categories, and areas with weak internal controls. The assessment may include site visits, interviews with relevant staff, and independent recalculation of key emission sources, and evaluates the inventory against the five quality principles established in Component 2: relevance, completeness, consistency, transparency, and accuracy. The verifier identifies any material misstatements, errors, omissions, or areas of uncertainty, assessing materiality in both quantitative and qualitative terms, and communicates findings to the SME for clarification or correction before issuing a final statement.

The assessment typically combines several techniques:

1. Independent recalculation of material emission sources using submitted activity data and verified emission factors;
2. Cross-checking of consolidated figures against site-level records and against physical asset inventories;
3. Unit and conversion verification, including the GWP version applied and unit consistency across documents (e.g., kilograms versus liters for liquefied petroleum gas, miles versus kilometers for travel);
4. Categorization review, confirming that each source is assigned to the appropriate scope per GHG Protocol or ISO 14064-1;
5. Boundary completeness checks, identifying emission sources that should be included but were omitted; and
6. Mass-balance and reconciliation tests between related sources (e.g., packaging purchased versus packaging waste generated).

**STEP 5**

RESOLVE
FINDINGS AND
ADJUST THE
INVENTORY

▶ The SME reviews the verifier's findings and makes any necessary corrections to the inventory, recalculating emission figures where required and updating documentation to address identified gaps. This iterative step is normal in the verification process and should not be viewed as a failure, it is the mechanism through which data quality improves. The verifier reviews the corrected inventory to confirm that material findings have been addressed before proceeding.

Verification findings are typically classified into three categories:

- Non-conformities (NCs): material deviations from the applicable standard that, if unresolved, prevent the verifier from issuing a positive opinion. NCs may relate to omitted sources, methodological errors, unsubstantiated activity data, or use of inappropriate parameters (e.g., outdated GWPs).
- Clarification requests (CRs): items where the verifier cannot conclude on conformity without additional information from the SME. CRs that remain unresolved at the end of the process are typically reclassified as NCs.

- Improvement opportunities (IOs): observations that do not affect conformity but indicate areas where data quality, completeness, or system robustness could be strengthened in future reporting cycles.

Each finding is recorded with the observation, the normative reference, the SME's response, the verifier's conclusion, and the justification. SMEs should be aware that responding to a finding with "the data is not available" does not resolve it, the finding will remain open and may result in a denied or conditional verification statement. Genuine resolution requires either producing the missing evidence, reconstructing the data from primary sources, or, when data genuinely does not exist, restating the inventory to exclude or appropriately disclose the affected source.



STEP 6

ISSUE THE
VERIFICATION
STATEMENT

- ▶ Upon completing the review of all findings and confirming that material non-conformities have been resolved, the verifier issues the formal verification statement.

Green Initiative proposes the following graded scale of outcomes:

- Satisfactory verification: the inventory fully complies with the applicable standards and methodologies.
- Satisfactory with minor observations: approved, with non-material improvement areas identified.
- Conditional verification: approved subject to the implementation of specified corrective actions within a defined timeframe.
- Denied verification: the inventory presents critical deficiencies that prevent validation; the SME must remediate and undergo a new verification process.

For CMF purposes, FIs should establish in their internal policy which outcomes are acceptable as a basis for financing. A conditional outcome may be acceptable when paired with a remediation plan and a timeline tied to disbursement milestones; a denied outcome should trigger a remediation cycle before the application is reconsidered.

BOX 3 – KEY LESSONS RELEVANT TO SMES AND FIS:

Aggregate tCO₂eq reporting is insufficient. Standards require per-gas disaggregation (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃) and separate accounting of biogenic CO₂.

Outdated parameters are a material non-conformity, not a minor issue. Using IPCC AR4 GWP values for a 2022 inventory, when AR6 has been the applicable reference for reporting periods from 2021 onward, is a structural deviation, not a rounding difference.

Transport-related Scope 3 categories require logistics data beyond invoices. Verification expects origin-destination pairs, trip counts, vehicle capacity, and weight transported per trip; expenditure data alone does not support reasonable assurance.

Physical asset inventories must reconcile with GHG inventory records. For refrigerants, HVAC fleets, vehicle fleets, and other emission-relevant assets, the count and type registered in the asset registry must match the count used in the inventory – verifiers routinely cross-check both.

Mass-balance checks are routine. Verifiers compare materials purchased (e.g., packaging) against waste generated and other downstream flows; unexplained gaps trigger non-conformities for completeness.

“The data is not available” is not a valid response. It converts an open clarification request into a non-conformity and, when repeated across multiple findings, can drive a denied verification statement. Genuine resolution requires producing the evidence, reconstructing the data, or restating the inventory.

Opacity of third-party calculation tools is treated as a finding. When an SME uses a consultant-developed model or off-the-shelf calculator, it must be able to justify the methodological choices embedded in the tool – such as why a given source has been assigned to a particular scope. Inability to do so is recorded as a verification finding.



3.3.3 Verification in the CMF Financing Cycle

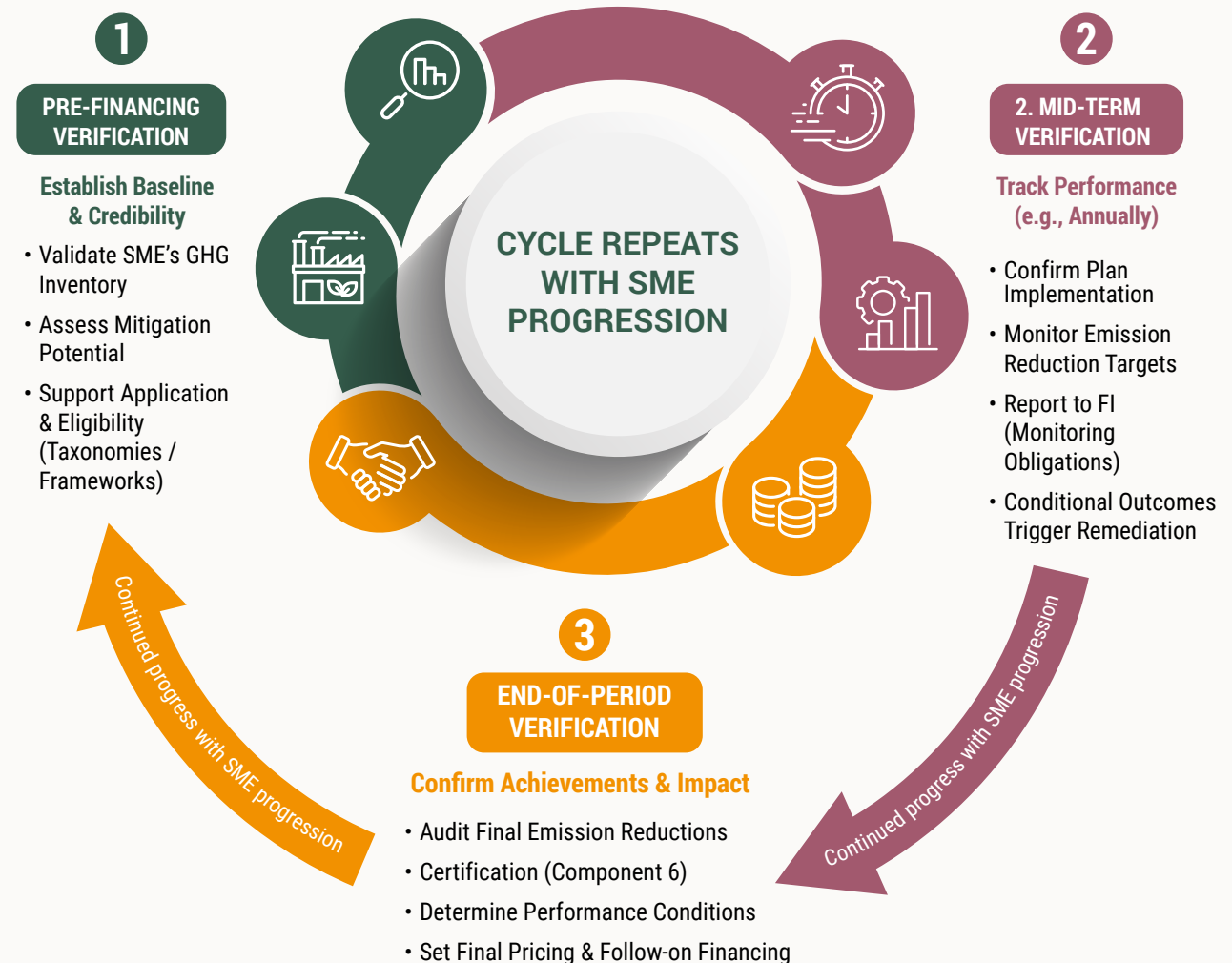
Verification does not occur only once. Within the CMFF, verification is a recurring process aligned with the financing lifecycle and the SME's progression across climate maturity levels. Each cycle produces a verification statement on the graded outcome scale described in Section 3.3.2, and the level of assurance applied may evolve over time – typically from limited assurance in early cycles to reasonable assurance as the financing matures or as performance-linked conditions intensify. The following phases illustrate how verification integrates with CMF decision-making:

Pre-financing verification establishes the credibility of the baseline GHG inventory and supports the SME's application for CMF. It provides the FI with the evidence needed to assess mitigation potential, structure financing conditions, and determine eligibility under applicable green finance taxonomies or CMF tracking frameworks.

Mid-term verification occurs at agreed intervals during the financing period – typically annually – to confirm that the SME is implementing its climate action plan and tracking toward its emission reduction targets. Results are reported to the FI as part of the monitoring and reporting obligations established in Component 5. A conditional outcome at this stage typically triggers a remediation plan tied to the next disbursement milestone rather than termination of the financing relationship.

End-of-period verification confirms the actual emission reductions achieved over the full financing cycle, providing the FI and other stakeholders with auditable evidence of climate impact. This verification supports the certification process in Component 6 and, where the instrument is sustainability-linked, also determines whether the SME has met the performance conditions that affect final pricing, residual disbursement, or eligibility for follow-on financing. It strengthens the SME's case for accessing additional or more complex CMF instruments in subsequent cycles.

CMFF RECURRING VERIFICATION CYCLE



3.4 Defining Targets and Action Plans

The fourth component focuses on establishing concrete emission reduction goals and developing comprehensive climate action plans that are eligible for CMF. This requires completing two complementary tasks: first, setting strategic targets based on data-driven indicators from the GHG emission inventory; and second, prioritizing and formalizing these targets at a corporate level through the approval of a Climate-Mitigation Action Plan.

SMEs and FIs can choose between two primary methodologies for setting science-based climate targets: forward-looking methodology and backcasting methodology. Each approach offers distinct advantages depending on organizational capacity, climate ambition, and business context. The selection of methodology fundamentally shapes how organizations approach decarbonization planning and determines their eligibility for different types of climate-mitigation finance.



3.4.1 Methodology Selection Guidance

The choice between forward-looking and backcasting methodologies depends on several organizational and contextual factors that determine implementation feasibility and strategic alignment.

Forward-looking methodology proves most appropriate for:



Organizations early in their sustainability journey where climate action represents a new strategic priority



SMEs with limited technical capacity and resources



Companies requiring high certainty in implementation plans, particularly those with limited risk tolerance or tight financial constraints



Businesses focused primarily on operational efficiency and cost reduction



Organizations in stable, well-understood markets with established technology solutions

On the other hand, backcasting methodology becomes most appropriate for:



Companies committed to science-based climate leadership and willing to embrace transformational change as a competitive advantage



Organizations with innovation capacity and risk tolerance



SMEs seeking to access premium climate finance opportunities including blended finance and impact investment specifically targeting ambitious climate action



Businesses operating in rapidly transforming markets where early climate action provides competitive advantage



Companies with long-term strategic planning horizons and patient capital availability

Many successful organizations adopt **hybrid approaches that combine both methodologies strategically**, using backcasting for long-term strategic vision and science-based target setting while employing forward-looking approaches for near-term implementation planning and operational feasibility assessment. This combination provides the **climate leadership benefits of science-based targets** while maintaining **practical implementation pathways** based on organizational capabilities and resource constraints.

Which climate target-setting methodology should be chosen?

Forward-Looking:

Suitable for those new to climate action, needing certainty, and with limited resources.



Backcasting:

Ideal for ambitious leaders with innovation capacity and a long-term strategy.



Hybrid Approach:

Combines both methods for a balanced strategy.



3.4.2 Forward-Looking Methodology: Actions-First Approach

The forward-looking methodology represents an actions-first approach where organizations begin by defining specific reduction measures they can realistically implement, then model multiple scenarios of possible GHG reductions based on feasibility and available resources. This approach builds incrementally from current organizational capabilities, making it particularly suitable for SMEs with limited technical capacity and financial resources.

The methodology's primary strength lies in enabling immediate action on proven measures without requiring transformational business changes. By evaluating all proposed actions for technical and economic feasibility upfront, organizations can achieve accurate financial planning and reduced implementation risk through reliance on established technologies and best practices familiar to business leaders.

However, this capability-based approach may produce less ambitious targets than science-based requirements aligned with climate pathways, potentially underestimating transformation potential as clean energy technologies rapidly evolve. Success demands regular reassessment of organizational capabilities and available solutions, as forward-looking targets may require additional breakthrough measures to achieve 1.5°C pathway alignment beyond those initially identified through existing capability assessment.

STEP-BY-STEP PROCESS FOR FORWARD-LOOKING TARGET SETTING



STEP 1

**CURRENT STATE
ASSESSMENT AND
BASELINE PROJECTION**

▶ The implementation of forward-looking target setting begins with a comprehensive current state assessment and baseline projection. Organizations must analyze their verified GHG inventory results from Component 2 (Section 3.2) and project business-as-usual emissions for the target timeframe, typically spanning 5-10 years. This projection accounts for planned business growth, operational changes, and market expansion while documenting assumptions about future emission factors and activity levels. The baseline projection serves as the reference point against which all reduction measures will be evaluated.



STEP 2

**IDENTIFY AVAILABLE
REDUCTION
MEASURES**

▶ Following baseline establishment, organizations conduct a comprehensive assessment of mitigation opportunities across their operations. This identification process examines energy efficiency improvements such as lighting upgrades, HVAC optimization, and equipment modernization. It evaluates renewable energy adoption opportunities including on-site generation potential and power purchase agreement options. The assessment also considers process optimization and waste reduction initiatives, transportation and logistics improvements, and supply chain engagement opportunities. Each identified measure is categorized by implementation complexity, cost requirements, and realistic timeframe for deployment, ensuring alignment with existing organizational capabilities.

**STEP 3****COST-BENEFIT ANALYSIS AND PRIORITIZATION**

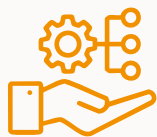
- ▶ The third step involves conducting detailed cost-benefit analysis and prioritization of identified measures. Organizations calculate implementation costs for each reduction measure while estimating financial savings from operational efficiency gains. This analysis evaluates payback periods and return on investment calculations, considering available financing options including climate-mitigation finance opportunities. The prioritization process ranks measures based on cost-effectiveness ratios, strategic alignment with business objectives, and compatibility with organizational resources and capabilities.

**STEP 4****SCENARIO MODELING AND REDUCTION POTENTIAL**

- ▶ Scenario modeling and reduction potential assessment follows the prioritization exercise. Organizations develop conservative, moderate, and ambitious implementation scenarios, calculating potential GHG reductions for each pathway over time. This modeling accounts for measure interactions and cumulative effects while including uncertainty ranges and risk factors. The scenario development process documents all assumptions and methodological choices, ensuring transparency and reproducibility of results. Each scenario provides different levels of climate ambition balanced against implementation risk and resource requirements.

**STEP 5****TARGET DEFINITION BASED ON ACHIEVABLE REDUCTIONS**

- ▶ Target definition emerges directly from the selected implementation scenario, with emission reduction commitments based on achievable reductions demonstrated through the modeling exercise. Organizations establish interim milestones, typically on an annual basis, to track implementation progress and maintain accountability. Target scope boundaries encompass Scope 1 and 2 emissions as well as relevant Scope 3 categories where significant and manageable. Targets are expressed in both absolute terms showing total GHG reductions and intensity metrics where relevant to business operations. The final targets represent genuine environmental improvement beyond business-as-usual projections.

**STEP 6****IMPLEMENTATION PLANNING AND RESOURCE ALLOCATION**

- ▶ The process concludes with comprehensive implementation planning and resource allocation. Organizations develop detailed implementation timelines for priority measures, assigning clear responsibilities and accountability structures throughout the organization. This planning secures necessary financial resources including climate-mitigation financing applications and approvals. Implementation plans establish robust monitoring and reporting procedures to track progress against targets and create contingency plans for addressing implementation challenges and unforeseen obstacles.

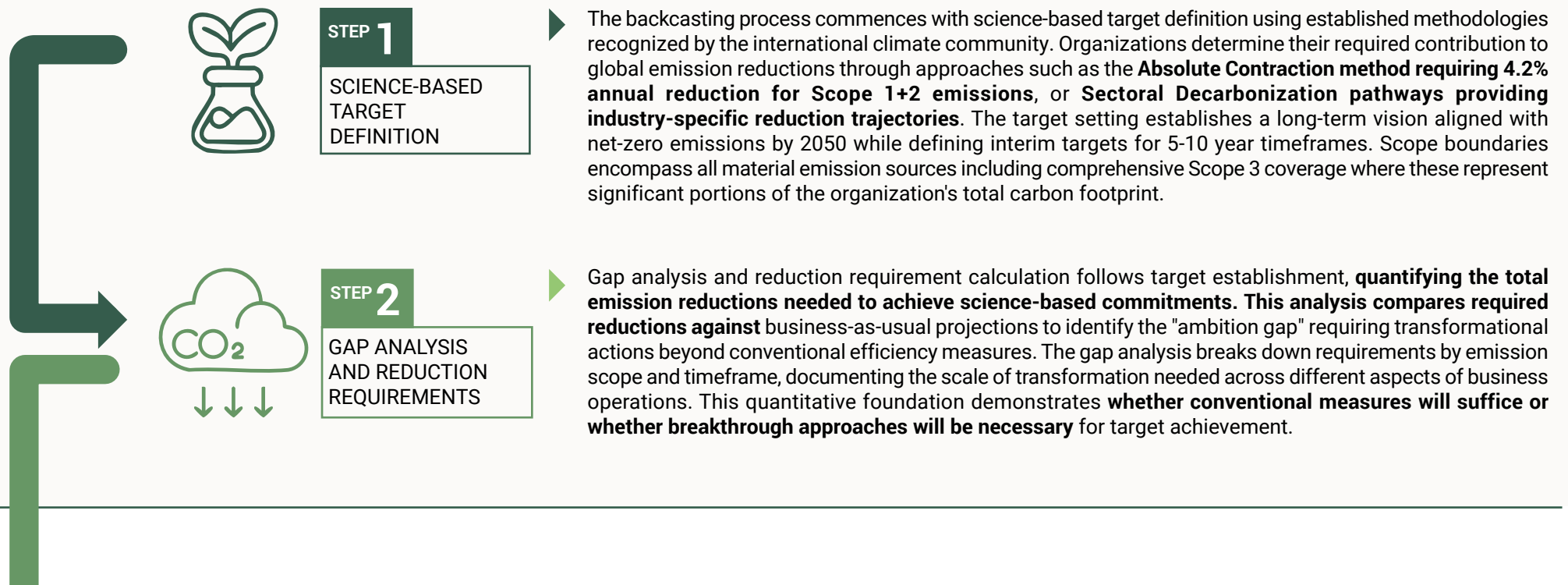
3.4.3 Backcasting Methodology: Targets-First Approach

The backcasting methodology takes a targets-first approach where organizations begin by setting specific emission reduction targets aligned with climate science requirements, then work backwards to determine the transformational changes needed to achieve those ambitious goals. This normative approach defines a desirable future state consistent with global climate objectives and identifies the pathway to connect that vision with present operations.

The methodology's compelling advantage lies in ensuring alignment with climate science and Paris Agreement goals, providing stakeholder credibility and access to premium climate finance opportunities specifically designed for ambitious decarbonization efforts. Backcasting drives innovation and transformational thinking that often reveals business opportunities invisible through incremental planning while supporting long-term strategic planning, climate risk management, and demonstrating clear environmental leadership.

However, organizations must carefully evaluate significant considerations before proceeding. The approach requires higher risk tolerance and innovation capacity since success may depend on commercially unproven technologies and business model innovations, creating execution uncertainty. Implementation demands substantial upfront planning investment, specialized technical expertise, extensive external financing, and partnerships while depending on favorable policy and market developments beyond organizational control.

STEP-BY-STEP PROCESS FOR BACKCASTING TARGET SETTING



**STEP 3****SOLUTION
PATHWAY
DEVELOPMENT**

▶ Solution pathway development represents the core of the backcasting methodology, working backwards from targets to identify necessary interventions across all emission sources. Organizations map technology solutions required for each significant emission source while identifying process changes and operational transformations needed to achieve deep decarbonization. This pathway development assesses supply chain engagement and collaboration needs, evaluating policy and market developments that could support target achievement. The process considers breakthrough technologies and innovation requirements, developing multiple pathway scenarios for achieving ambitious targets under different technological and market conditions.

**STEP 4****FEASIBILITY
ASSESSMENT AND
BARRIER ANALYSIS**

▶ Feasibility assessment and barrier analysis provide reality-testing for the identified solution pathways. Organizations evaluate technical feasibility of required measures within realistic timeframes while assessing comprehensive financial requirements and investment needs. This assessment identifies capacity building and skill development requirements necessary for successful implementation. The analysis examines policy, regulatory, and market barriers that could impede progress while determining external support and partnership needs. Climate-mitigation finance opportunities are evaluated as potential mechanisms for overcoming financial and technical barriers to implementation.

**STEP 5****IMPLEMENTATION
ROADMAP
CREATION**

▶ Implementation roadmap creation translates pathway analysis into actionable plans with clear sequencing and milestones. Organizations sequence interventions based on impact potential, feasibility assessment, and interdependencies between different measures. The roadmap employs a phase-gate approach with clear milestones and decision points, developing contingency pathways for different technological and market scenarios. Governance structures for target achievement are established, integrating climate considerations into strategic business planning processes. The roadmap provides sufficient flexibility to adapt to changing conditions while maintaining trajectory toward science-based targets.

**STEP 6****RESOURCE
MOBILIZATION
AND ACTION PLAN**

▶ Resource mobilization and action plan development concludes the backcasting process by securing necessary support for implementation. Organizations develop comprehensive financing strategies encompassing internal capital allocation and budget planning alongside climate-mitigation finance applications and proposals. Partnership development focuses on securing technical and financial support while innovation investment addresses R&D requirements for breakthrough technologies. Detailed action plans are created for each implementation phase, establishing accountability mechanisms and performance tracking systems to ensure progress toward ambitious targets.

3.4.4 Elaborating Climate-Mitigation Action Plan

Regardless of methodology chosen, SMEs must translate their commitments into concrete action plans designed with financial viability and CMF requirements in mind. Given investment horizons and risk profiles of FIs, these plans **should span no more than 5 years**, for the near-term implementation plan (recognizing that strategic targets may extend to longer horizons under backcasting methodology), focusing on achievable, measurable outcomes that demonstrate clear returns and emission reductions within financing cycles. The climate action plan serves as both internal roadmap and external communication tool for engaging with FIs and climate finance providers.

CLIMATE MITIGATION ACTION PLAN STRUCTURE



Source: Green Initiative, 2010

The comprehensive climate action plan begins with an executive summary and strategic context that provides a clear statement of climate commitments and methodology used for target establishment. This summary presents the business case for climate action including quantified financial and strategic benefits while demonstrating integration with overall business strategy and operations. The strategic context explains how climate action supports broader business objectives and competitive positioning.



Baseline and target definition sections provide the technical foundation for climate action planning, presenting comprehensive GHG inventory results and baseline establishment methodology. Targets are specified with measurable parameters and clear timeframes, documenting scope boundaries and methodological assumptions for transparency and verification purposes. The plan demonstrates alignment with relevant standards and frameworks while explaining how targets connect to broader climate goals and stakeholder expectations.

Implementation strategy forms the operational core of climate action planning, organizing detailed action items by priority and realistic timeframe for execution. Resource requirements encompass human capital needs, technical capacity building, and financial investment requirements for successful implementation. Risk assessment and mitigation strategies address potential obstacles while stakeholder engagement and partnership requirements identify external support needed for success. The implementation strategy provides sufficient detail for FIs to evaluate feasibility and risk.

Financial planning components address investment requirements for each major initiative while projecting expected financial returns and operational cost savings from climate action implementation. Climate-mitigation finance strategy outlines applications and proposals for external funding while budget allocation and cash flow projections demonstrate financial sustainability of proposed actions. This financial framework enables climate finance providers to evaluate investment opportunities and structure appropriate financing packages.

Monitoring and reporting frameworks establish key performance indicators for tracking progress against targets while specifying data collection and management systems needed for accurate measurement. Regular reporting schedules and accountability mechanisms ensure transparency and stakeholder communication.

KPIs, will provide the necessary milestones to monitor progress on decarbonization due to CMF resources, and will reinforce consistent monitoring and reporting focusing on:

- **Financing eligibility:** Some KPIs may relate directly to potential climate-mitigation financing opportunities.
- **Internal optimization:** Others may be addressed through internal organizational changes and best practices that do not require external CMF.
- **Performance tracking:** All KPIs should enable annual and accumulated decarbonization impacts monitoring.



Governance and accountability structures define organizational roles and responsibilities for climate action implementation while establishing clear decision-making processes and approval authorities throughout the organization. Performance management and incentive alignment ensure that climate action receives appropriate organizational attention and resources.

To maintain momentum and ensure integration of decarbonization targets within the SME's business model, high-complexity actions requiring external financing and technical support should be combined with low-complexity, short-term efforts that build organizational capability and demonstrate immediate progress. This balanced approach spans two strategic time horizons that align with typical financing cycles and organizational planning processes.

Near-term actions spanning 1-2 years focus on energy efficiency improvements with short payback periods that provide immediate financial returns while building organizational confidence in climate action. Operational optimization and waste reduction initiatives require minimal external support while delivering measurable emission reductions. Renewable energy procurement through power purchase agreements provides clean energy access without major capital investment. Staff training and capacity building initiatives develop internal expertise for more complex future initiatives. Data collection and monitoring system implementation establishes measurement and verification capabilities essential for accessing climate finance.

Medium-term strategic investments spanning 3-5 years address technology upgrades and process improvements requiring external financing and longer implementation periods. Supply chain engagement and optimization programs extend climate action throughout the value chain while building collaborative relationships with key partners. Infrastructure investments in renewable energy generation and energy efficiency systems provide substantial emission reductions while creating long-term operational benefits. Product and service innovation aligned with low-carbon transition creates new revenue opportunities and competitive advantages. Market expansion into climate-aligned business opportunities positions SMEs for growth in the emerging clean economy.

This comprehensive approach ensures that SMEs develop realistic, financeable climate action plans that attract climate-mitigation finance while delivering measurable emission reductions and tangible business value. The integration of both near-term wins and long-term transformation creates a compelling narrative for FIs while building organizational capability for sustained climate action over time.

KEY MITIGATION ACTIVITIES BY TIME HORIZON

Quick-win investments (1-2 years)	Medium-term strategic investments (3-5 years)
Initiatives with immediate observable results that demonstrate commitment and competence to potential financiers	Technology upgrades and process improvements backed by clear return-on-investment projections and documented emissions-reduction potential
Low-cost, high-impact measures that improve operational efficiency while delivering measurable emissions reductions	<p>Implementation of biomass energy systems using local organic waste.</p> <p>Energy storage systems paired with renewable energy for eco-tourism sites.</p> <p>Development of carbon sequestration through sustainable landscaping and gardens.</p>
Foundation-building activities such as staff training, upgrades to monitoring systems, and improvements in data collection that enhance future investment readiness	Supply-chain engagement and optimization programs that reduce scope 3 emissions while improving cost competitiveness
	Transformational changes to business models that align with emerging market demands and regulatory climate requirements
Energy efficiency improvements with short payback periods (typically under 18 months)	Major infrastructure investments requiring external climate-mitigation finance designed to generate both emission reductions and operational cost savings
	Integration with circular-economy principles that create new revenue streams while reducing waste and resource consumption

Source: Green Initiative, 2025

3.4.5 Carbon Removals

Beyond measuring greenhouse gas emissions and implementing direct decarbonization measures, SMEs should begin assessing the strategic role of carbon removals within their climate mitigation plans. Carbon removals refer to activities that remove CO₂ from the atmosphere and store it in biological, geological, or product-based reservoirs. These may include technological approaches, such as direct air capture with geological storage or bioenergy with carbon capture and storage, as well as land- and nature-based approaches, including reforestation, agroforestry, peatland and mangrove restoration, soil carbon enhancement, and broader ecosystem restoration.

The importance of carbon removals is grounded in climate science. The IPCC concludes that carbon dioxide removal is necessary to achieve global net-zero CO₂ and greenhouse gas emissions, particularly to counterbalance residual emissions from sectors and activities that are difficult to fully decarbonize. It is also central to scenarios that limit warming to 1.5°C or 2°C, and becomes even more important in pathways that require temperatures to be brought back down after an overshoot⁴¹. In other words, removals are not a substitute for rapid emissions reductions, but they are a necessary complement to them.

This scientific position is increasingly reflected in market standards. ISO 14068-1 establishes a hierarchy for credible carbon neutrality strategies in which organizations should prioritize:



Direct and indirect GHG emissions reductions,



GHG removal enhancements within the value chain, and only thereafter



the use of carbon credits to address remaining emissions.

Similarly, the Science Based Targets initiative (SBTi) requires companies pursuing net zero to achieve deep emissions reductions and then neutralize residual emissions with carbon removals at the net-zero target date. SBTi also recommends Beyond Value Chain Mitigation (BVCM), a voluntary practice whereby companies finance additional climate mitigation activities outside their own value chains, such as supporting high-quality carbon removal projects or funding emissions reductions in unrelated sectors, without counting these contributions as reductions against their own inventories⁴².



Carbon removals should be integrated into SME climate strategies as a complementary pillar of credible mitigation, following and reinforcing emissions reductions rather than replacing them.

⁴¹ Babiker, M. et al. Mitigation Pathways Compatible with Long-term Goals. in Cambridge University Press eBooks 295–408 (2023). doi:10.1017/9781009157926.005.

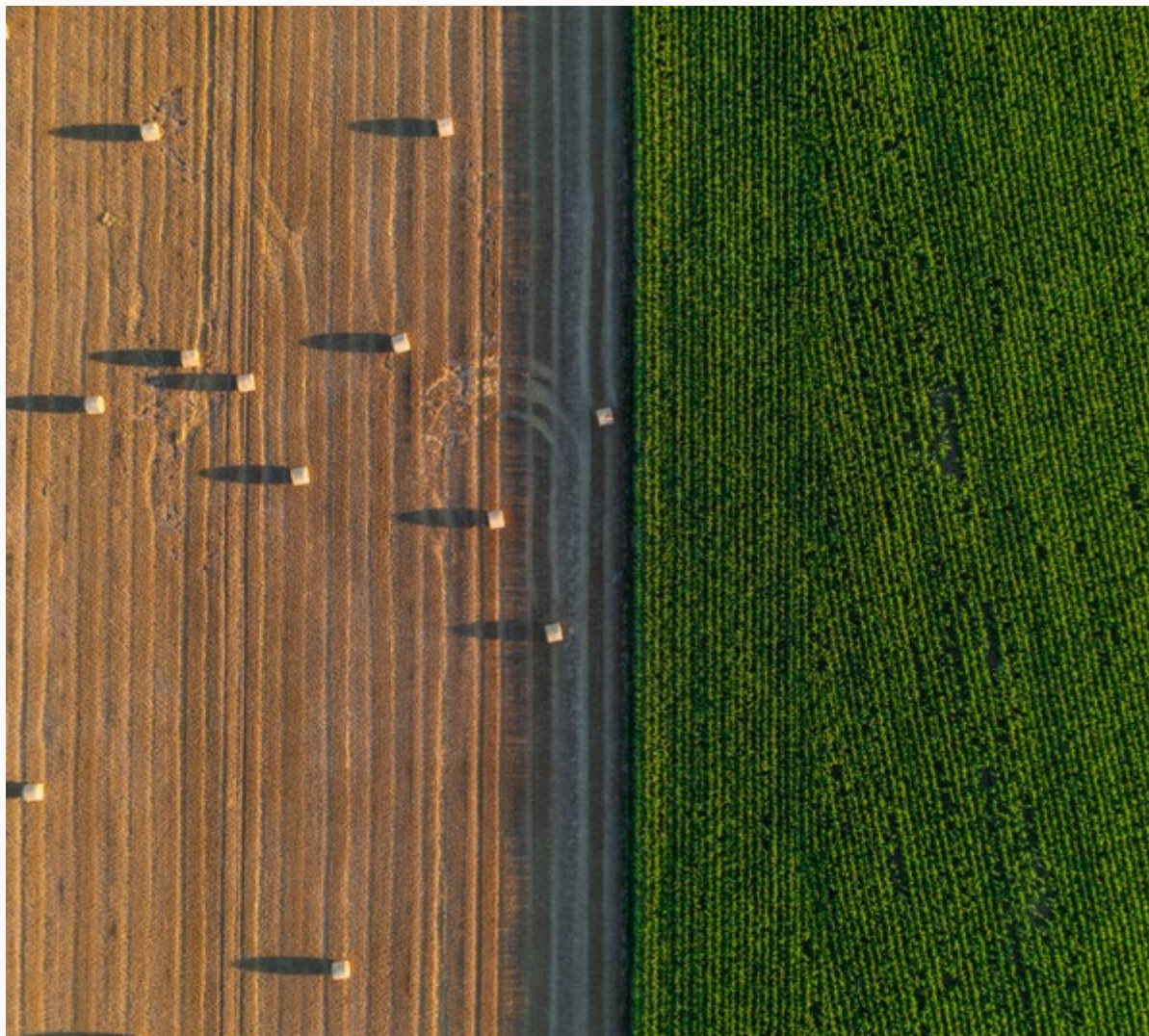
⁴² SBTi. SBTi Corporate Net-Zero Standard. <https://files.sciencebasedtargets.org/production/files/Net-Zero-Standard.pdf> (2026).

Implications for SMEs

For SMEs, the implication is clear: carbon removals should be approached as part of a credible mitigation hierarchy. A robust strategy should begin with measuring emissions, identifying reduction opportunities, and implementing operational and value-chain decarbonization measures. From there, SMEs can assess whether they have opportunities to enhance removals within their own value chains, especially when their activities depend on land, agriculture, forests, natural resources, or climate-sensitive supply systems.

This is particularly relevant for SMEs in sectors such as agriculture, food and beverages, tourism, textiles, forestry, and other bio-based industries, where value chains may be linked to degraded landscapes, farming systems, water catchments, or biodiversity-sensitive areas. In these contexts, removal strategies can be implemented through measures such as agroforestry, regenerative land management, restoration of degraded production landscapes, native species recovery, watershed restoration, and forest or mangrove restoration. When these interventions are adequately designed and monitored, they can contribute to atmospheric carbon removal while also strengthening resilience, water security, biodiversity, and the long-term stability of supply chains⁴³.

The GHG Protocol Land Sector and Removals Standard, released in 2026, further strengthens this direction of travel. It provides companies with accounting requirements and guidance to quantify, report, and track land-sector emissions, CO₂ removals, and technological removals. This is significant for SMEs and the financial institutions that support them, because it creates a clearer basis for incorporating land-based removals into corporate GHG management and for distinguishing between emissions reductions, removals within the value chain, and external climate contributions⁴⁴.

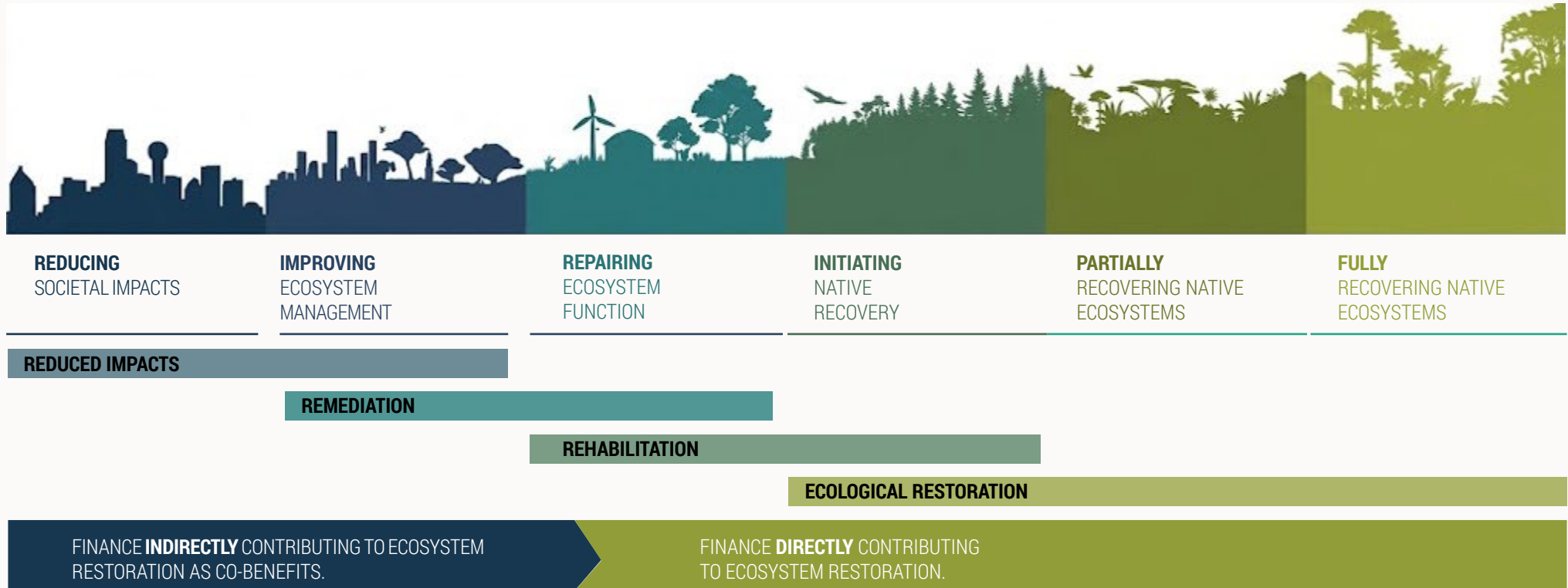


⁴³ Nabuurs, G. J. et al. Agriculture, Forestry and Other Land Uses (AFOLU). in Cambridge University Press eBooks 747–860 (2023). doi:10.1017/9781009157926.009.

⁴⁴ GHG Protocol. Land Sector and Removals Standard. <https://ghgprotocol.org/sites/default/files/2026-01/Land-Sector-and-Removals-Standard.pdf> (2026).

Ecosystem restoration as a high-value removal pathway

Ecosystem restoration is especially important within the carbon removal landscape because it can generate multiple forms of value simultaneously. The United Nations Decade on Ecosystem Restoration defines restoration as the process of halting and reversing degradation, resulting in improved ecosystem services and recovered biodiversity. This includes a continuum of approaches, from reducing degrading impacts and rehabilitating ecosystem functions to ecological restoration with specific native biodiversity objectives⁴⁵.



When carefully planned and aligned with international best practice, ecosystem restoration can contribute to climate mitigation by increasing carbon storage in biomass, soils, wetlands, and coastal systems. At the same time, it can support biodiversity recovery, water regulation, soil stabilization, disaster-risk reduction, food-system resilience, and local livelihoods. The World Bank and UN Decade Finance Task Force emphasize that restoration should not be treated only as an environmental cost, but as an investment capable of generating both market and non-market benefits. The report estimates that every dollar spent on restoration can generate US\$7 to US\$110 in economic benefits through ecosystem services, while also pointing to opportunities for private-sector engagement through resilient supply chains, payments for ecosystem services, carbon storage and sequestration markets, and sustainability-linked business models.

⁴⁵ Nations, U. & Bank, W. Scaling up Ecosystem Restoration Finance. World Bank, Washington, DC eBooks (2022). doi:10.1596/38311.

Implications for SMEs

However, not every restoration activity should automatically be presented as a carbon removal intervention. To maintain environmental integrity, SMEs should distinguish between:

- Restoration activities that generate climate and nature benefits, and
- Removals that are quantified, monitored, and suitable for formal GHG accounting or claims.

Where removals are incorporated into climate strategies, they should be supported by credible methodologies, robust monitoring, transparent baselines, consideration of additionality, durability or reversal risk, leakage, land tenure, and equitable benefit sharing. The IPCC emphasizes that carbon removal approaches vary substantially in their mitigation potential, storage duration, costs, co-benefits, and risks, and therefore require careful governance. The revised Oxford Principles for Net Zero Aligned Carbon Offsetting likewise recommend an increasing shift toward removals, particularly those with durable storage, as organizations move toward net zero⁴⁶.

For ecosystem restoration specifically, SMEs should align implementation with the Ten Principles for Ecosystem Restoration developed for the UN Decade. These principles stress global contribution, broad engagement, measurable goals, benefits for nature and people, addressing the causes of degradation, knowledge integration, monitoring, local context, policy integration, and capacity development. Following these principles helps ensure that restoration projects are not designed narrowly around carbon, but instead contribute to resilient, biodiversity-positive, and socially legitimate outcomes⁴⁷.



⁴⁶ Johnstone, I. *et al.* The revised oxford principles for net zero aligned carbon offsetting. *Environmental Research Letters* 20, 091005 (2025).

⁴⁷ FAO, IUCN, & SER. Principles for Ecosystem Restoration to Guide the United Nations Decade 2021–2030. <https://openknowledge.fao.org/handle/20.500.14283/cb6591en> (2021)

3.5 Operational MRV Systems

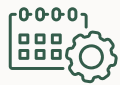
Once an SME has established a credible emissions baseline and defined its mitigation pathway, MRV is the fundamental system through which SMEs and financial institutions track whether financed mitigation activities are being implemented as intended, whether expected climate outcomes are materializing, and whether progress is being documented in a transparent and decision-useful manner.

3.5.1 Tools and Innovations

To remain useful for both SMEs and FIs, MRV under the CMFF should operate at two interconnected levels:

a. Organizational MRV

Organizational MRV tracks the SME's broader climate-management performance over time. This includes:



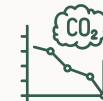
Periodic updates to the organizational GHG inventory;



Progress against emissions-reduction targets;



Implementation status of the Climate-Mitigation Action Plan;



Changes in emissions intensity, where relevant;



Improvements in data quality, governance, and internal climate-management systems.

This level of MRV helps FIs assess whether the SME is advancing along a credible decarbonization pathway and whether financing is strengthening its overall climate maturity. It also creates continuity between the GHG inventory, target-setting, implementation, and certification components of the CMFF.

b. Activity- or Project-Level MRV

Activity-level MRV focuses on the specific mitigation measures supported by CMF. Depending on the investment, this may involve:



Defining the financed activity and its technical boundary;



Identifying relevant emissions sources, sinks, or reservoirs;



Establishing a baseline or reference scenario;



Collecting implementation and operational data;



Selecting performance indicators;



Quantifying expected or achieved emissions reductions, avoided emissions, or removals;



Documenting assumptions, methodologies, and data limitations.

3.5.2 Tiered MRV Approach for SMEs

MRV systems should be robust enough to preserve credibility, but not so demanding that they exclude SMEs with genuine mitigation potential. The CMFF therefore suggests a tiered MRV approach, allowing SMEs to begin with standardized templates, conservative default assumptions, and a focused set of core indicators, while financing agreements establish a pathway for progressively improving data granularity, verification, and reporting quality over time.

To support this balance, the CMFF adopts a tiered MRV approach inspired by the methodological logic of the IPCC Guidelines for National Greenhouse Gas Inventories. The IPCC defines tiers as progressively more demanding levels of methodological complexity. Tier 1 represents the most basic approach, typically relying on default parameters and broadly available activity data. Tier 2 applies more specific data and assumptions that better reflect the characteristics of the reporting context. Tier 3 involves the most detailed and data-intensive methods, which may include advanced models, facility- or site-specific information, or direct measurement systems. Higher tiers are generally expected to improve accuracy when adequate data are available.

The IPCC further recommends that more advanced methods be prioritized for key categories—those that have a significant influence on total emissions, emissions trends, or overall uncertainty. Applied to climate-mitigation finance, this principle suggests that SMEs and FIs should concentrate higher MRV rigor on the most material mitigation activities, emissions sources, and performance indicators, especially where they are central to financing eligibility, target achievement, public claims, or financial incentives.



MRV Tier	Purpose	Typical Features	Appropriate Use
Tier 1: Foundational MRV	Establish a credible entry-level system for tracking mitigation implementation and indicative climate outcomes	Standardized reporting templates; readily available activity data; invoices, utility bills, equipment records, and procurement documentation; use of default emission factors or conservative estimates; basic tracking of implementation milestones and expected GHG benefits.	Early-stage SMEs, smaller CMF transactions, or mitigation activities where detailed data are not yet available and the primary objective is to establish a baseline monitoring system.
Tier 2: Activity- Specific MRV	Improve accuracy and decision usefulness through more specific data, clearer baselines, and tailored indicators.	Activity- or project-specific monitoring plans; more granular operational data; technology-specific parameters; defined baselines or reference scenarios where relevant; periodic calculation of achieved or expected emissions reductions; internal data-quality checks and documentation procedures.	SMEs with established GHG management capacity, larger mitigation investments, or activities that materially influence the SME's emissions profile or financing case.
Tier 3: Advanced MRV and Assurance	Provide high-rigor measurement and reporting for material, complex, or finance-sensitive mitigation outcomes.	Site- or facility-specific data; advanced monitoring systems, automated meters, models, or remote-sensing tools where appropriate; explicit uncertainty management; stronger QA/QC procedures; detailed documentation of methodologies and assumptions; independent verification or assurance of material performance claims where required.	High-value CMF transactions, performance-linked instruments, activities involving complex quantification, land-use or removal claims, certification processes, or public climate claims that require stronger confidence.

3.5.3 Reporting Platforms and Tools

Carbon and climate accounting tools allow SMEs to centralize activity data, apply standardized emission factors, generate GHG inventories aligned with the GHG Protocol and ISO 14064-1, track performance against defined targets, and produce structured reports for FIs and other stakeholders. A diverse set of tools – public, open, and commercial – are available at different levels of complexity, allowing SMEs to select an option appropriate to their maturity level and to the requirements of the financing instrument being accessed. Representative examples include:

- GREENIA, a carbon footprint management and monitoring tool developed by Green Initiative that estimates scope 1, 2, and 3 emissions along an entity's entire value chain. The tool is designed to be accessible to SMEs at early stages of their climate journey and generates structured outputs compatible with the reporting requirements of financial institutions and climate-finance programmes.
- GHG Protocol Calculation Tools, developed by the World Resources Institute and the World Business Council for Sustainable Development under the Greenhouse Gas Protocol, comprising a suite of cross-sector and sector-specific calculators that estimate scope 1, 2, and 3 emissions.
- US Environmental Protection Agency's Simplified GHG Emissions Calculator (SGEC), a user-friendly tool designed primarily for small and low-emitting organizations to estimate scope 1 and 2 emissions from sources such as stationary combustion, mobile sources, and purchased electricity.

- SME Climate Hub Business Carbon Calculator, developed specifically for small and medium-sized enterprises to produce an initial estimate of their carbon footprint and identify priority areas for reduction.
- Carbon Trust SME Carbon Footprint Calculator, a freely accessible tool that supports SMEs in calculating scope 1 and 2 emissions and a basic set of scope 3 categories.

In addition to these public tools, commercial carbon accounting platforms offer more integrated and automated functionalities, including direct connections to enterprise resource planning and operational systems, automated emission factor updates, structured supplier data collection, target tracking, and multi-framework reporting (for example, toward CDP, the ISSB/TCFD, or the EU's CSRD). Their use tends to be more common among SMEs at ML2 and ML3, where the volume and complexity of data justify the additional investment, but lighter-tier offerings from these providers are increasingly accessible to organizations at ML1.

On the FI side, climate finance assessment and tracking tools operate at the level of the loan or investment portfolio rather than the individual organization. These tools enable an FI to quantify the expected GHG impact and aggregate results across the portfolio for internal management and external reporting. Multilateral development banks, bilateral development finance institutions, and commercial banks have adopted proprietary or shared platforms for this purpose, and analogous approaches are emerging among jurisdictions implementing national green taxonomies.



The tool is designed to be accessible to SMEs at early stages of their climate journey and generates structured outputs compatible with the reporting requirements of financial institutions and climate-finance programmes.

3.6 Climate Certification

Completing a GHG inventory and having it independently verified is a significant technical and organizational achievement. It requires data collection, methodological rigor, internal capacity, and external scrutiny. Yet without a formal credential, that work remains largely invisible to lenders, buyers, regulators, and investors who cannot easily distinguish between organizations that have genuinely measured and reduced their emissions and those that have not.

Certification closes that gap. It is the mechanism through which the technical work accumulated across the CMFF, including the emissions baseline, the verified inventory, the reduction targets, and the action plan, becomes a recognized and communicable asset. While certification is not a technical prerequisite to access CMF, as the evidence generated in Components 1 through 5 is sufficient for most financing decisions, it is the component that gives that evidence external standing and market value.





3.6.1 Why Certify

An SME that has measured its emissions and had its inventory independently verified has already done the most demanding part of climate action. It has invested time, resources, and organizational capacity to produce credible, auditable data about its own environmental performance. The purpose of CMFF certification is to ensure that investment is not wasted by remaining internal. Certification validates and communicates that achievement, converting it into a tangible asset across three dimensions.

Strategic value within climate finance:

A certified SME enters the CMF market with a substantially stronger position. FIs are increasingly required to justify the climate integrity of their portfolios under disclosure frameworks such as TCFD and emerging sustainable finance taxonomies. Certified SMEs reduce the due diligence burden for FIs by providing pre-validated evidence of climate performance, which translates into faster approval cycles, improved access to concessional terms, and eligibility for instruments, such as green bonds, blended finance, and sustainability-linked loans, that require third-party verification as a condition of access.

Commercial and market value:

Certification operates as a market signal that differentiates the SME in increasingly sustainability-driven value chains. Multinational buyers, public procurement schemes, and consumer-facing markets are progressively integrating climate criteria into their selection processes. A certification credibly demonstrates that the SME has measured, verified, and acted on its emissions, qualifying it for supplier programs, green procurement contracts, and trade relationships that exclude non-certified competitors.

Communicational value:

A certification gives the SME a clear, externally validated narrative to communicate its climate effort to investors, clients, regulators, employees, and the broader public. Certification converts that work into a recognizable credential that protects the SME against greenwashing accusations and amplifies the reputational return on its climate investment.

For FIs, financing certified SMEs strengthens portfolio quality, supports compliance with climate disclosure obligations, and reinforces the credibility of the FI's own climate-aligned products in the market.

To learn more about portfolio and performance traceability tools that support the implementation of the CMFF at scale, Green Initiative's resources offer a practical reference: www.greeninitiative.eco

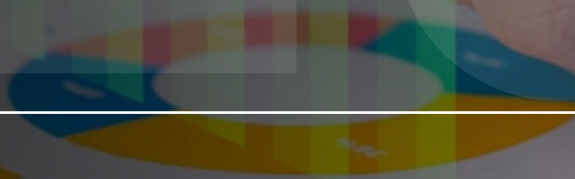
3.6.2 Annual Monitoring and Renewal

CMFF certification is granted on an annual basis. Annual renewal ensures that the SME maintains continuous compliance with the framework, demonstrates ongoing progress against its emission reduction targets, and provides FIs with up-to-date evidence of climate performance throughout the financing cycle. Each renewal requires an updated GHG inventory for the most recent reporting period, an updated verification statement under ISO 14064-3, and a progress report documenting the implementation of the Climate-Mitigation Action Plan during the year. The certifying entity reviews the updated documentation and confirms whether the SME remains in compliance. Sustained annual certification builds a verifiable track record of climate performance that progressively strengthens the SME's position in subsequent CMF cycles.

Together, the six components of the CMFF form a progressive, verifiable pathway, from an SME's first GHG inventory to full climate-finance readiness. Each component builds on the last: measurement enables verification, verification supports target-setting, targets drive action planning, action planning informs MRV, and MRV underpins certification. No single component delivers value in isolation, but as an integrated system, they transform climate ambition into a credible, financeable, and communicable asset, for the SME, for the financial institution, and for the integrity of climate finance as a whole.



Conclusion



Green Initiative's guide for SMEs and Financial Institutions addresses a specific and practical constraint in climate-mitigation finance: the lack of sufficiently clear, proportionate, and technically credible pathways through which SMEs can identify, structure, and document mitigation opportunities in ways that are usable by financial institutions. Although sustainable finance offerings for SMEs have expanded, access remains limited in practice, particularly where enterprises lack the data, technical capacity, and reporting systems needed to demonstrate mitigation relevance and investment readiness.

The guide's main contribution is to provide a structured technical foundation for narrowing this gap. Its Climate-Mitigation Finance Framework for GHG Management organizes the core elements that SMEs and financial institutions need to consider when connecting mitigation performance with financing decisions: climate maturity assessment, GHG inventory development, verification, target-setting and action planning, operational MRV, and climate certification. The framework presents them as a sequenced process that can support more consistent project preparation, assessment, and follow-up.

A particularly useful feature is the Climate Maturity Level approach, which recognizes that SMEs do not begin from the same level of preparedness. By linking different stages of climate capacity with corresponding support needs and financing instruments, the guide offers financial institutions a more practical basis for segmenting SME clients and designing proportionate engagement models. It also gives SMEs a clearer view of the technical steps required to move

from initial emissions measurement toward more robust mitigation planning and finance-readiness.

The guide also contributes a sector-wide reference catalogue of climate-mitigation activities, organized across Negative or Very Low Emission Activities, Transitional Activities, and Enabling Activities. This catalogue helps address a recurring implementation problem: the difficulty of translating broad climate-finance objectives into concrete, sector-relevant investment opportunities. For SMEs, it provides examples of actions that may be considered within a mitigation-finance context. For financial institutions, it can serve as an initial screening and classification resource, to be complemented by applicable taxonomies, eligibility criteria, and institution-specific appraisal procedures.

Another key point is the treatment of MRV, verification, and certification as practical mechanisms for improving the reliability of climate-related information, particularly by reducing information asymmetries between borrowers and finance providers. More consistent GHG data, clearer action plans, and verified performance can support better-quality financing decisions, more credible product design, and more transparent monitoring of climate-mitigation outcomes over time.

At the same time, this guide is intentionally focused on one part of a wider financing challenge: the technical GHG-management conditions that influence SME access to climate-mitigation finance. Additional barriers remain and should be addressed through future work. These include:



- Financial product design: many SME mitigation investments are affected by high upfront costs, longer payback periods, limited collateral, and risk perceptions that are not well addressed by conventional lending structures. Future work could examine how guarantees, concessional finance, longer tenors, blended structures, and performance-linked mechanisms can be better adapted to mitigation investments by SMEs.
- Project preparation and aggregation: individual SME mitigation opportunities may be too small or too fragmented to attract financing efficiently. Further work could explore aggregation models, standardized project documentation, value-chain approaches, and intermediary structures that reduce transaction costs and create more investable pipelines. This is especially relevant in agriculture, land use, and other sectors characterized by dispersed actors and smaller ticket sizes.
- Proportionate data and reporting systems: recent evidence continues to identify reporting complexity, limited emissions data, and compliance costs as significant barriers to SME access to green finance. Future work could expand on and exemplify simplified data templates, digital MRV approaches, and minimum viable reporting standards that preserve credibility without creating disproportionate burdens.
- Integration into financial-institution processes: many banks are still developing practical methods to incorporate climate-related information into credit-risk assessment, client segmentation, and portfolio monitoring. More guidance is needed on how SME-level mitigation data can be used in a disciplined and decision-relevant manner within financial workflows.
- Institutional and policy alignment: sustainable finance taxonomies, public support programs, procurement policies, and technical-assistance facilities can improve access, but their effectiveness depends on whether they are sufficiently usable for SMEs and consistently interpreted by financial intermediaries. Future research could assess how these frameworks can be operationalized more effectively for climate-mitigation finance at SME level.

In this context, the guide should be read as a practical technical contribution to a broader climate-finance agenda. It provides a clear foundation for addressing one of the most persistent constraints: the absence of standardized, credible, and usable GHG-management pathways that help connect mitigation opportunities with financing decisions. Future work can build on this foundation by focusing more directly on financing structures, aggregation mechanisms, pipeline development, and institutional arrangements that complement the technical framework presented here.



Appendix



4.2 Glossary of Terms and Concepts

Additionality	The principle that climate finance should support activities that would not have occurred without the financial intervention, ensuring genuine incremental impact beyond business-as-usual scenarios.
Anthropogenic	Originating from human activities. In climate science, it refers to greenhouse gas emissions and climate changes caused by human actions rather than natural processes.
Baseline Scenario	A reference point representing the “business-as-usual” situation without climate finance intervention, used to measure the impact of mitigation activities and calculate emissions reductions.
Best Available Techniques	Technology approved by legislators or regulators (EU in this case) for meeting output standards for a particular process.
Biodiversity	The variability among living organisms from all sources, including terrestrial, marine, and aquatic ecosystems, and the ecological complexes of which they are part. Includes diversity within species, between species, and ecosystems.
Blended Finance	A financing approach combining public or philanthropic funds with private capital to reduce investment risks and attract additional funding for sustainable development projects.
Brownfield Projects	Investments that modify, upgrade, or retrofit existing facilities or systems rather than building entirely new infrastructure.

Carbon Border Adjustment Mechanism (CBAM)	An EU policy tool that applies a carbon price on imports of certain goods from countries with less stringent climate policies.
Carbon Footprint	The total amount of greenhouse gases (expressed in CO ₂ eq) emitted directly and indirectly by an individual, organization, product, or activity.
Carbon Neutral / Carbon Neutrality	Achieving a balance between greenhouse gas emissions produced and emissions removed from the atmosphere, resulting in net-zero carbon emissions.
Carbon Sequestration	The process of capturing and storing atmospheric CO ₂ in natural or artificial sinks such as forests, soils, or geological formations.
Circular Economy	An economic system in which the value of products, materials, and resources is maintained as long as possible to minimize waste, reduce environmental impacts, and improve efficiency across the life cycle.
Climate (change) Impact	Effects on natural and human systems of extreme weather events, climate events, and long-term climate change.
Climate (change) Risk	The potential impact of climate change on societies, economies, and the environment.

Climate (-related) Hazards	Climate-related physical events, trends, or impacts potentially harming people, nature, cultural heritage, assets, or economic activities.
Climate Adaptation	The process of adjusting to actual or expected climate change and its impacts.
Climate Maturity Level (CML)	An assessment tool that evaluates an organization's readiness and capacity to implement effective climate action based on policies, commitments, and mitigation practices.
Climate-Mitigation Finance (CMF)	Financial resources specifically allocated to projects and activities that directly reduce or avoid greenhouse gas emissions.
Climate Positive	A state where more CO ₂ is removed from the atmosphere than emitted, resulting in a net-positive environmental impact.
CO₂ Equivalent (CO₂eq)	A metric expressing the global warming potential of different greenhouse gases as the equivalent amount of CO ₂ .
Concessional Finance	Financing provided on terms more favorable than market conditions (e.g., lower interest rates, longer tenors) to support development or climate goals.

Concessional Finance	Financing provided on terms more favorable than market conditions (e.g., lower interest rates, longer tenors) to support development or climate goals.
Concessional Finance	The process of reducing or eliminating CO ₂ emissions from economic activities, often through renewable energy and low-carbon technologies.
Direct Air Capture (DAC)	Technology that removes CO ₂ directly from ambient air through chemical processes, providing a pathway to negative emissions.
Ecosystems	Dynamic complexes of plant, animal, and microorganism communities and their non-living environment interacting as functional units.
Ecosystem Restoration	The process of assisting the recovery of degraded or destroyed ecosystems to enhance biodiversity, ecological function, and carbon sequestration capacity.
Emission Factors	Coefficients that quantify greenhouse gas emissions per unit of activity (e.g., kg CO ₂ eq per liter of fuel).
Enabling Activities	Economic activities that directly support other activities in making a substantial contribution to climate-mitigation, such as manufacturing clean energy technologies.

Environmental, Social, and Governance (ESG)	A set of criteria used to evaluate a company's environmental performance, social responsibility, and governance practices.
Environmental, Social, and Governance (ESG)	A set of criteria used to evaluate a company's environmental performance, social responsibility, and governance practices.
Fiduciary	Relating to the obligation to manage assets or make decisions on behalf of another party, acting in their best interest.
Gigaton (Gt)	A mass unit equal to one billion metric tons, commonly used to measure global greenhouse gas emissions.
Green Bonds	Debt instruments used to finance environmentally beneficial projects, especially those related to climate-mitigation and adaptation.
Green Taxonomy	A classification system defining which economic activities qualify as environmentally sustainable.
Greenfield Projects	New developments built on previously undeveloped land, involving entirely new infrastructure.

Greenwashing	Making misleading or unsubstantiated claims about environmental performance to appear more environmentally responsible.
Impact Finance	Investments intended to generate positive, measurable environmental and social impacts alongside financial returns.
Key Performance Indicators (KPIs)	Measurable values demonstrating the effectiveness of an organization's efforts toward climate or sustainability goals.
Mitigation	Efforts to reduce or prevent greenhouse gas emissions or enhance natural sinks to limit climate change.
Monitoring, Reporting, and Verification (MRV)	A systematic process for tracking progress on climate actions, reporting results, and independently verifying accuracy and reliability.
Nature-Based Solutions (NbS)	Actions that protect, sustainably manage, or restore ecosystems to address societal challenges while benefiting biodiversity and human well-being.
Net Zero	Achieving a balance between greenhouse gas emissions and removals, typically targeted globally by 2050.

Paris Agreement	A legally binding international treaty adopted in 2015 that aims to limit global warming to well below 2°C above pre-industrial levels.
Physical Climate Risks	Direct impacts of climate change on assets, operations, and people, including extreme weather, sea-level rise, and temperature shifts.
Science-Based Targets (SBTs)	Corporate emissions reduction goals aligned with the decarbonization required to keep warming below 2°C.
Scope 1 Emissions	Direct emissions from sources owned or controlled by an organization.
Scope 2 Emissions	Indirect emissions from purchased electricity, steam, heating, or cooling.
Scope 3 Emissions	Indirect emissions across the value chain, including upstream and downstream activities.
Small and Medium Sized Enterprises (SMEs)	Small and Medium-sized Enterprises (SMEs) are independent, non-subsidary businesses characterized by relatively limited workforce size, revenue generation, and asset base compared to large corporations. While quantitative thresholds vary across jurisdictions and FIs, SMEs generally represent firms with constrained access to capital, lower operational scale, and more limited internal technical capacity.

Sustainability-Linked Instruments	Financial products whose terms depend on achieving sustainability performance targets.
Task Force on Climate-related Financial Disclosures (TCFD)	A framework guiding companies on how to disclose climate-related financial risks and opportunities.
Transition Risks	Financial risks arising from the transition to a low-carbon economy, including policy, market, and technology shifts.
Transitional Activities	Economic activities that still emit greenhouse gases but play an essential role in progressing toward climate neutrality.
Uncertainty Analysis	The process of identifying and quantifying uncertainties in greenhouse gas estimates to improve data quality.
Value Chain	The full range of activities required to bring a product from conception to end-of-life disposal.
Verification	An independent assessment evaluating the accuracy, completeness, and reliability of reported emissions or climate actions.

4.2 Glossary of Acronyms and Abbreviations

BMS: Building Management System

BVCM: Beyond Value Chain Mitigation

CBAM: Carbon Border Adjustment Mechanism (EU)

CDP: Carbon Disclosure Project

CH₄: Methane

CIP: Cleaning-in-Place

CLT: Cross-Laminated Timber

CML: Climate Maturity Level

CMF: Climate-Mitigation Finance

CMFF: Climate-Mitigation Finance Framework

CO₂: Carbon Dioxide

EA: Enabling Activities

ESCO: Energy Service Company

ESG: Environmental, Social, and Governance

EU: European Union

EUDR: EU Deforestation Regulation (Regulation (EU) 2023/1115)

FIs: Financial Institutions

GHG: Greenhouse Gas

GWP: Global Warming Potential

HFCs: Hydrofluorocarbons

HVAC: Heating, Ventilation, and Air Conditioning

HVO: Hydrotreated Vegetable Oil

IDB: Inter-American Development Bank

IFC: International Finance Corporation

IMF: International Monetary Fund

IMTA: Integrated Multi-Trophic Aquaculture

IPCC: Intergovernmental Panel on Climate Change

ISO: International Organization for Standardization

KPI: Key Performance Indicator

LCA: Life Cycle Assessment

LNG: Liquefied Natural Gas

ML0: No Climate Action (Climate Maturity Level)

ML1: Measurement and Reporting (Climate Maturity Level)

ML2: Direct Operations (Climate Maturity Level)

ML3: Indirect Operations (Climate Maturity Level)

N₂O: Nitrous Oxide

NbS: Nature-based Solutions

NF3: Nitrogen Trifluoride

NLEA: Negative or Very Low Emission Activities

NZEB: Net-Zero Energy Building

OECD: Organisation for Economic Co-operation and Development

PET: Polyethylene Terephthalate

PFCs: Perfluorocarbons

PPA: Power Purchase Agreement

RIL: Reduced Impact Logging

SF₆ — Sulfur Hexafluoride

4.2 Glossary of Acronyms and Abbreviations

SMEs:	Small and Medium-sized Enterprises
TA:	Transitional Activities
TCFD:	Task Force on Climate-related Financial Disclosures
UN:	United Nations
UNEP FI:	United Nations Environment Programme Finance Initiative
UNFCCC:	United Nations Framework Convention on Climate Change
US\$:	United States Dollar
UTV:	Utility Task Vehicle
VFD:	Variable Frequency Drive
WMO:	World Meteorological OrganizationESCo



Contributing Organizations

Climate-Mitigation Finance: A Practical Guide for Financial Institutions and SMEs was written by Green Initiative based on the results of a series of investigations and experience working with SMEs in climate action for over 10 years. Contributors from Green Initiative include Marc Tristant, Erika Rumiche, Virna Chavez, Musye Lucen, Matheus Mendes, Frédéric Perron-Welch, and Luz Stecca.

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Contributing Organizations

The background of the page is a photograph of two workers in safety gear (hard hats and high-visibility vests) installing solar panels on a roof. The workers are positioned on the left side of the frame, with one kneeling and the other standing. The solar panels are arranged in rows across the roof, extending towards the right. The sky is clear and blue.

Banco de Desarrollo de América Latina y el Caribe (CAF)

Caribbean Regional Fisheries Mechanism (CRFM)

Federación Interamericana Empresarial (FIE)

Federal University of Rio de Janeiro

Inter-American Development Bank (IADB)

International Trade Center (ITC)

IU International University of Applied Sciences

Nacional Financiera (Nafin)

Nature and Sustainability Solutions

Netherlands Development Organisation (SNV)

Ocho Sur

Private Sector Foundation Uganda (PSFU)

PROFONANPE

Proyecta Consultoría

Sevea Consulting

UN Climate Change

UN Trade and Development (UNCTAD)

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Green Initiative (GI) advises and certifies organizations seeking to achieve a new climate action standard through science-based and practical solutions. Our work combines technical rigor with implementation experience to help organizations strengthen climate performance, improve decision-making, and align with evolving expectations from financial institutions, regulators, and markets.

This guide has been developed to contribute to a more consistent and practical approach to climate mitigation finance, particularly for SMEs and the institutions that support them. It draws on international literature, applied experience across sectors, and the perspectives of experts working in climate action, sustainable finance, and private sector development.

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