Network for Greening the Financial System

Technical document

Scaling Up Blended Finance for Climate Mitigation and Adaptation in Emerging Market and Developing Economies (EMDEs)

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NGFS

Central Banks and Supervisors
Network for Greening the Financial System

Foreword

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There are few global challenges that are as urgent as climate change. Its effects are felt across the world, but nowhere is the need for action more pronounced than in Emerging Markets and Developing Economies (EMDEs).

EMDEs are confronted with significant funding gaps to finance their transition to a net zero economy. Public resources for climate investments in EMDEs are often limited, with governments constrained by high public debt amid increased borrowing costs from elevated interest rates. Private capital is constrained by the unattractive risk-return profiles of many transition projects.

Blended finance can play an important role in synergising public and private capital for climate mitigation and adaptation. It entails the use of public resources at concessionary terms to catalyse private financial flows.

The NGFS launched the Blended Finance Initiative (BFI) to complement its existing work on greening the financial system. This initiative aims to use our convening power to raise awareness about blended finance, identify key barriers for scaling up climate blended finance solutions, and provide policy recommendations to address these barriers.

This technical document was drafted with insights from a survey of NGFS members, a literature review, and bilateral engagement with key stakeholders in the blended finance ecosystem, including providers of public and private capital, credit rating agencies, blended finance intermediaries, think tanks and thought leaders. In addition, we got insightful contributions from stakeholders in selected demonstrative projects. We are hopeful that this technical document will contribute to unlocking the full potential of climate blended finance solutions in EMDEs.

We are deeply thankful for all the hard work put in by participants of the BFI project group. This publication has truly benefitted from multilateral and public-private collaboration. Such global collaboration is crucial to tackle a global challenge that cannot be addressed by individual stakeholders or countries alone. We hope that it will serve as a useful resource for jurisdictions keen to tap on blended finance as a part of their transition towards a low carbon economy.

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Executive Summary

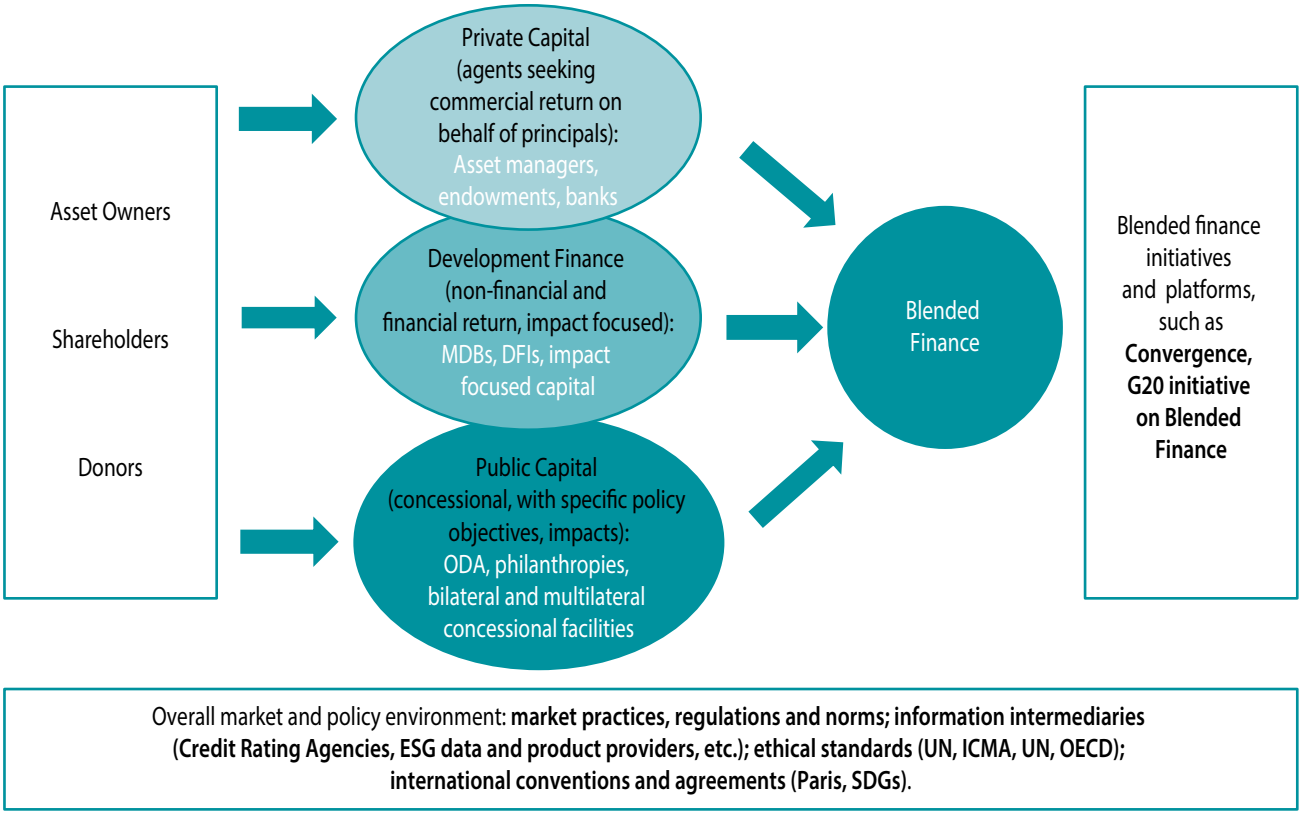
Climate change is one of the most critical challenges facing humanity, with far reaching consequences that threaten the well-being of people and the planet. The global reach of climate change affects also those countries that have contributed the least to it. EMDEs, in particular, are most vulnerable at the time of an unfolding polycrisis. Significant investment in mitigation, adaptation and resilience is therefore needed to avert the most dangerous and systemic impacts of climate change. Current estimates for climate investment needs in EMDEs are in the trillions, with about 80-90 percent of climate mitigation investments to be financed by the private sector as public funding will be limited (IMF Global Financial Stability report, 2023).

Investors' appetite for investments in EMDEs has fluctuated over the last two decades. Country-specific risk is seen as a primary driver of such investment flows, accounting for between 60 to 90 percent of investors' risk considerations in these countries (International Energy Agency (IEA) and International Finance Corporation (IFC), 2023). With interest rates in advanced economies (AEs) having risen sharply as central banks tighten monetary policy to bring inflation back to target, investors appear now to be less motivated to invest in EMDEs – a reminder of the challenges of investing in markets with higher macroeconomic and financial risk compared to more developed markets. Reflecting the more daunting environment, yields in EMDEs have risen sharply post pandemic after years of declines, with sub-investment grade countries experiencing the sharpest increase in external financing costs.

Significant volumes of concessional resources will be required to improve the risk profile of climate investments in EMDEs and make them financially viable for private capital. Blended finance can play a transformational role in bridging the interests of public and private capital if the proper policy, institutional, and climate frameworks, tailored to EMDE-specific circumstances, are in place and foster a conducive investment environment. For the purpose of this document, blended finance is defined as *the strategic use of a limited amount of concessional resources to mobilize financing from public and private financial institutions to achieve climate impacts.* Since its early adoption, a growing number of new initiatives have been supporting the mainstreaming and scaling up of blended finance as a tool to attract private financing. As a result, blended finance is an increasingly familiar concept to a diverse set of stakeholders, including those traditionally involved in the sector (such as development agencies, multilateral development banks (MDBs), private foundations, and impact investors) as well as newer entrants into the sector – such as institutional investors, asset managers and commercial banks. Blended finance practitioners across the public, private, and philanthropic sectors are actively collaborating to scale investment opportunities and identify sound principles and practices.

While blended finance is not a definitive answer to closing the climate financing gap, it has an important role in demonstrating investability of EMDEs, contributing to aligning financial and sustainability objectives of various stakeholders across the blended finance ecosystem as emissions' reduction in EMDEs will contribute to curbing the majority of future emissions – a contribution to a global public good. To achieve these goals, partnership across a very diverse set of institutional players is needed in designing and implementing blended finance solutions: public (Official Development Assistance (ODA), donors, philanthropies, various concessional facilities), private (asset managers, institutional investors, banks, endowments, etc.) and Development Finance Institutions (DFIs), including MBDs and bilateral DFIs. These institutions, which operate under different institutional mandates, regulatory regimes, project objectives and timelines, play complementary roles. The blended finance ecosystem also operates within an enabling environment of government and other agencies (regulators, central banks, finance ministries) and is influenced by the evolving market practices and standards, international conventions and agreements, and blended finance initiatives and platforms.

Figure 1 **Blended Finance Ecosystem**



Source: IMF staff.

Despite growing expectations that blended finance will play a pivotal role in attracting private capital to EMDEs, the status quo of blended finance will likely fall short of delivering what is needed to address the climate challenges faced by EMDEs. Most of the transactions to date have been in middle-income countries while low-income countries and the least developed countries have attracted a much smaller share[1]. The current blended finance practices have come under increasing criticism for relatively low mobilization and leverage ratios, with calls to bring in private capital more effectively and efficiently, and for optimizing the scarce concessional capital coming from increasingly limited public sources. In addition, because blended finance involves different approaches and instruments rather than a single standardized financial tool that fits neatly within a particular asset class, many solutions are not scalable and cannot be easily integrated into well-established business models or investment practices of investors and financial institutions. Moreover, blended finance is often time and effort intensive, requiring more complex treatment by investors within their governance and investment processes, as well as by regulators. As a result, there is also a sense of growing fatigue from blended finance initiatives overload, as they have yet to mobilise at scale the needed private financing for climate mitigation and adaptation solutions in what continues to be seen as a nascent field.

Against this backdrop, the NGFS can contribute to the global collaborative effort to scale up blended finance for climate mitigation and adaptation in EMDEs. The NGFS aims to raise awareness of good practices and principles that underpin the scaling up of blended finance solutions for climate and rally key public and private stakeholders to bring this about. Another important dimension relates to providing regulatory clarity with respect to blended finance solutions, enabling an appropriate macrofinancial and regulatory environment for blended finance to succeed, and managing potential tensions between the need to mobilize private capital and address potential risks associated with an increase in external financing. The NGFS BFI will complement the NGFS core work of supporting its members in assessing the macroeconomic and financial

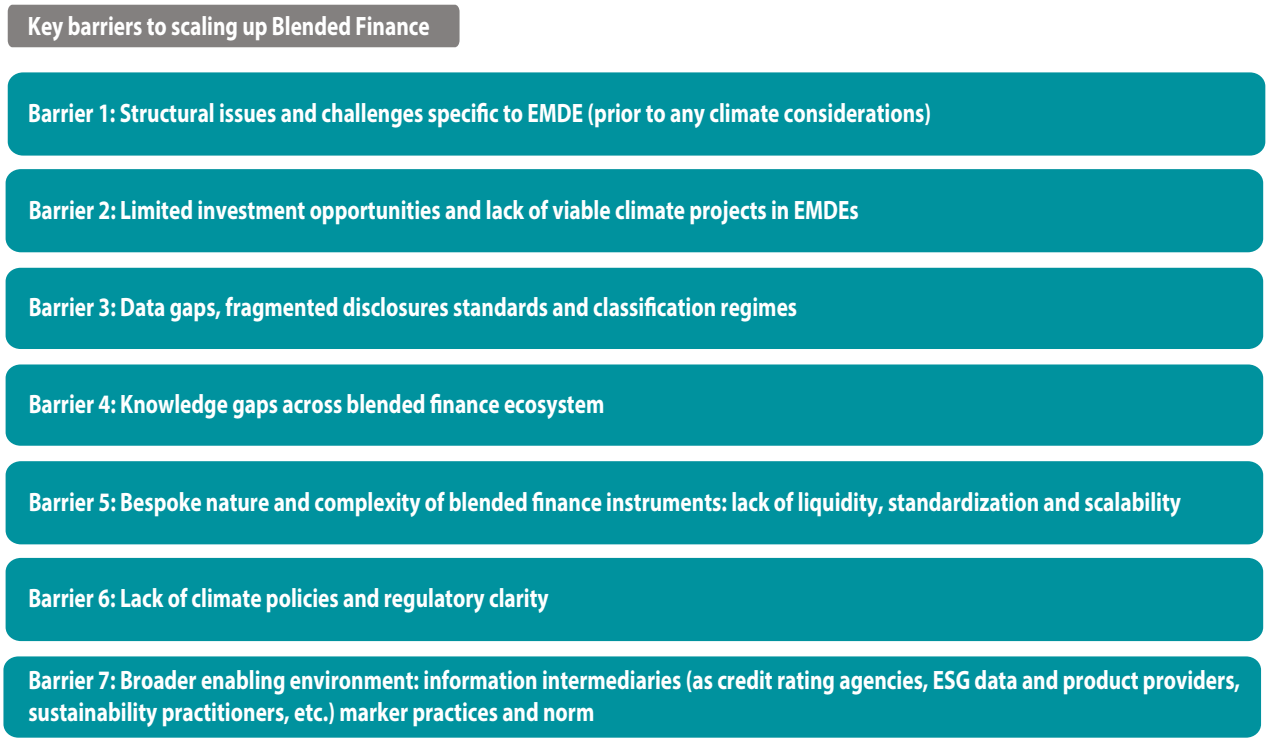
1 Over the period 2018-2020 according to the Organisation for Economic Co-Operation and Development (OECD) only 15 percent of blended finance went to LDCs based on OECD definition and data; based on Convergence definition and data, this ratio was about 32 percent.

stability implications of climate change and adjusting their policy actions accordingly. Central banks, supervisors and regulators can provide an additional perspective, in particular in EMDEs where domestic financing (including for climate adaptation and mitigation projects) remains underdeveloped and where large, sudden capital flows can have significant macro financial implications.

Discussions with various stakeholders across the blended finance ecosystem, including providers of public and private capital, credit rating agencies (CRAs), blended finance intermediaries, think tanks and others have revealed considerable divergence in views about how blended finance should be defined, implemented, and ultimately evaluated. These discussions revealed significant *knowledge gap* about other participants realities across the entire blended finance ecosystem. Public and private sector entities do not fully understand each other's institutional mandates and regulatory environments, motivations and challenges, often leading to significant lead times and efforts in aligning interests and in some instances outright competition. This knowledge gap leads to misperceptions of what is plausible for different blended finance stakeholders, often resulting in contradictions and inconsistencies in expectations across the ecosystem, and thus in missed opportunities. For example, seeking high levels of leverage at the same time as raising investment in high-risk locations, which would require higher level of concessional finance to make investments viable for private capital; or seeking standardized approaches to improve liquidity and scale at the same time as seeking structures that are tailored to specific contexts and sectors, or testing new instruments or project innovations.

Using information from surveys of NGFS and IIF members, discussions with a wide range of stakeholders across the blended finance ecosystem, and engagement with blended finance initiatives, the following key barriers to scaling up blended finance in EMDEs have been identified:

Figure 2 **Key barriers to scaling up Blended Finance**



In order to address the barriers outlined above and scale up blended finance in EMDEs, several policy recommendations grouped around five key areas are proposed:

(a) *Prerequisites to improve EMDE climate investability*

To improve EMDEs investability there are several key necessary prerequisites. The right climate policies (such as carbon pricing) should be in place and the climate information architecture should be strengthened. This includes improving the quality, comparability and reliability of climate data; having appropriate pathways to adopt disclosure standards; and establishing classification systems and transition taxonomies. It is also important to have in place robust governance and transparency standards, as well deepening domestic capital markets.

(b) *A holistic approach to developing blended finance*

To address the barriers and impediments that prevent the scaling up of blended finance in EMDEs, policymakers should approach the blended finance ecosystem in a holistic way, looking at an "ecosystem of solutions". This requires focusing on "vertical" solutions (like innovative financing instruments, pooling of risks and standardization) and "horizontal" solutions (like project preparation facilities (PPF) to help develop viable projects through project identification, project preparation, and other stages of project developments). It is important to note that different solutions may be needed for adaptation finance, which is more relevant for smaller EMDEs. There is also a need to bridge the knowledge gap between public and private sectors—a goal that can be achieved only by working collaboratively across all stakeholders in the blended finance ecosystem. Policymakers should also clarify where blended finance is needed and assess the right amount of concessional funding necessary to finalize a project, attract private capital, and achieve a significant impact.

(c) *Development of project pipelines and scalable structures*

There is a need to engage with EMDE project sponsors from early conceptualization through financing in order to develop and bring to market a pipeline of viable projects – by focusing efforts on design, funding, and technical support to improve project viability and success. It is also recommended to promote greater standardization to help reduce information asymmetries between investors and project developers, leading to more efficient allocation of capital and better risk management.

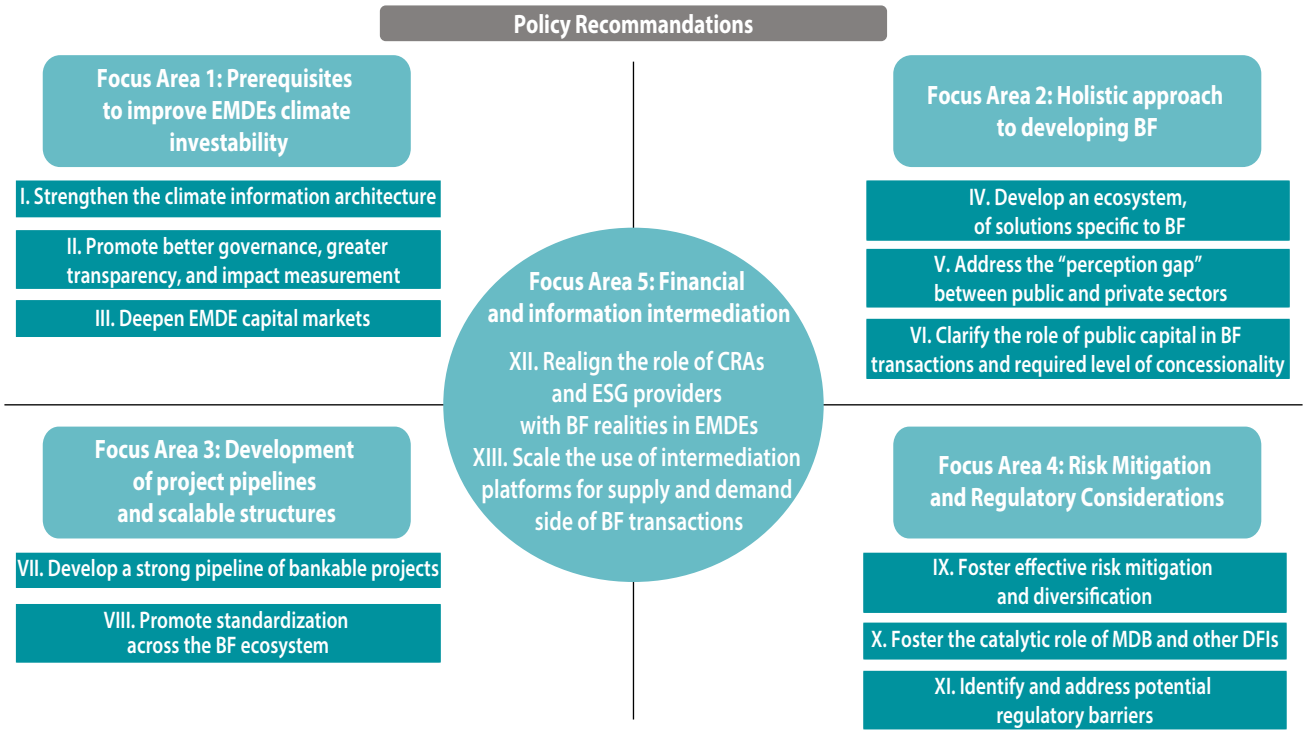
(d) *Risk mitigation and regulatory considerations*

To create an enabling environment for blended finance to scale, policymakers should promote effective risk mitigation and support innovative blended finance solutions that encourage risk diversification through risk pooling and tranching. This will attract different sources of private capital, with different risk profiles and investment time horizons. It is also recommended that greater efforts be made towards fostering the catalytic role of MDBs and other DFIs. Public-private risk sharing, through enhancing financial capacity and operating models of MDBs, is crucial to attract more capital by overcoming hurdles to private investments in EMDEs. Policymakers should also strive to provide greater regulatory clarity for blended finance, and assess and address any potential practical and regulatory barriers that may disincentivize private sector participation in blended finance transactions in EMDEs.

(e) *Financial and information intermediation*

Information intermediaries such as CRAs and Environmental, social, and governance (ESG) providers need to be a part of the multistakeholder efforts to improve investability of EMDEs and realign relevant products with blended finance realities in EMDES. Furthermore, given the important role of blended finance platforms serving as intermediaries between supply of and demand for blended finance transactions and broadening participation across the entire ecosystem, greater efforts are needed to scale up blended finance intermediation in EMDEs.

Figure 3 **Policy Recommendations**



Key demonstrative projects with innovative and scalable blended finance mechanisms across different geographical areas are included in the report to illustrate the relevance of these policy recommendations in addressing specific barriers to scaling up private climate finance. These case studies also aim to help the reader contextualise the applicability of the policy recommendations.

Through this publication, the NGFS seeks to raise awareness on the importance of blended finance to advance climate mitigation and adaptation in EMDEs. Given the challenges to scale and realize the full potential of climate blended finance solutions in EMDEs, a globally coordinated effort involving all key stakeholders in the ecosystem is imperative.

1. Introduction

Climate change is one of the most critical challenges facing humanity, with far reaching consequences that threaten the well-being of people and the planet. Significant investment in mitigation, adaptation and resilience is needed to avert the most dangerous and systemic impacts of climate change. The global reach of climate change affects those countries most that contributed to it least. EMDEs are most vulnerable to climate change at the time of unfolding polycrisis. With overall costs of development significantly increasing in the new environment of higher interest rates, EMDEs cannot respond adequately solely through their own policy, tax, and spending decisions.

Current estimates for EMDEs climate investment needs are in the trillions, with about 80-90% of climate mitigation investments to be financed by the private sector as the growth in the public funding will be limited (IMF GFSR, 2023). This will require significant volume of concessional resources to make these investments financially viable in EMDEs for private capital to participate. For example, to enable the amount of private finance required just for *clean energy investments* in EMDEs outside of China (USD 0.9-1.1 trillion annually), some USD 80-100 billion of concessional finance per year will be needed by the early 2030s (IEA and IFC, 2023). In addition to mitigation needs, estimates of the annual adaptation costs are in the range of USD 160-340 billion by 2023 and USD 315-565 billion by 2050 (accounting for inflation), which is five to ten times the current international adaptation finance flows, with this adaptation finance gap continuing to widen (UNEP, 2022). Against this backdrop, there are increasing expectations that blended finance is a key solution to attracting private finance to EMDEs in order to address these global challenges. While its deployment presents an important tool toward this goal, there are also challenges to its reaching full potential, as discussed in this report.

The original concept of blended finance was adopted by the United Nations in 2015 at the Addis Ababa Action Agenda of the Third International Conference on Financing for Development as "combining concessional public finance with non-concessional private finance and expertise from the public and private sector". Since then a growing number of initiatives are advancing the field of blended finance seeking to mainstream its application to various impact sectors and scale it up to support the greening of the global economy.[2] As a result, blended finance is an increasingly familiar concept to a diverse set of stakeholders, including those traditionally involved in the sector – such as development agencies, MDBs, private foundations, and impact investors – as well as newer entrants into the sector – such as institutional investors, asset managers and commercial banks. Blended finance practitioners across the public, private, and philanthropic sectors are actively collaborating to scale investment opportunities and identify sound principles and practices.

Blended finance can play a transformational role in bridging the interests of public and private capital if the proper policy, institutional, and climate frameworks, tailored to EMDE-specific circumstances, are in place and create a conducive investment environment. In particular, there is a need to deploy philanthropic, donor and other concessional resources in a way that provides the right incentives to the private sector and broadens the range of investors active in this space. While blended finance is not a definitive solution to closing the climate financing gap, it plays an important role in demonstrating investability of EMDEs, contributing to reorienting the global financial system and aligning financial and sustainability objectives of various stakeholders across the blended finance ecosystem.

2 Convergence was launched in 2016 as the first sourcing platform to help public and private investors find and connect with each other to co-invest in blended finance deals in emerging and frontier markets. OECD Blended Finance Principles were adopted by the 30 OECD DAC members in 2017. Launched in 2018 the Tri Hita Karana Roadmap for Blended finance to enable and align stakeholders action at policy and operational levels leading to the launch of Tri Hita Karana Blended Finance Platform in 2021. The DFI Working Group on Enhanced Blended Concessional Finance for Private Sector Projects, comprising 23 DFIs, has become a well-established platform for DFI and MDBs to harmonize blended finance practices and promote the adoption of the principles to ensure a strict and disciplined approach to blended finance, and has been publishing an annual Joint Report since 2018. The Global Impact Investing Network (GIIN) launched a new Blended Finance Working Group in 2018, which sought to address the bespoke nature of designing blended finance structures with the goal of decreasing costs and increasing the frequency and scale of blended finance investments. The 2021, G20 Sustainable Finance Roadmap in its Action 15 encourages IFIs, including MDBs, relevant IOs, and public funds, to mobilize private finance by developing and scaling up blended finance instruments and mechanisms. In November 2022, G20 launched "The G20 Principles to Scale Up Blended Finance in Developing Countries, including Least Developed Countries and Small Island Developing States".

The NGFS can contribute to the global collaborative effort to scale up blended finance for climate adaptation and mitigation in EMDEs by raising awareness of sound practices and principles that underpin the scaling up of climate blended finance and rallying key public and private stakeholders to bring this about. Another important, albeit overlooked, dimension of a successful scaling-up includes enabling an appropriate macro financial and regulatory environment for blended finance to scale, and managing potential tensions between the need to mobilize private capital for blended finance as well as address potential risks associated with an increase in external financing. NGFS BFI[3] will complement the NGFS core work of supporting its members in assessing the macroeconomic and financial stability implications of climate change and adjusting their policy actions accordingly. Central banks, supervisors and regulators can provide an additional perspective, in particular in EMDEs where domestic financing (including for climate adaptation and mitigation projects) remains underdeveloped and where large, sudden capital flows can have significant macro financial implications.

3 The BFI is co-chaired by the Monetary Authority of Singapore and De Nederlandsche Bank, with members/partners from Bank Negara Malaysia, Banca d'Italia, Japan Financial Services Agency, International Monetary Fund (IMF), International Finance Corporation (IFC), Asian Development Bank, European Bank for Reconstruction and Development (EBRD), Institute of International Finance (IIF), Multilateral Investment Guarantee Agency (MIGA). In addition, there is also a small group of volunteers from the NGFS Workstream on Supervision, who contribute regulatory insights to the BFI's work.

2. Blended Finance in EMDEs: Context to Date

Due to increasing focus on scaling up blended finance in EMDEs by the international community and the financial sector, there has been a significant increase in blended finance initiatives in the fundraising stage seeking to mobilize commercially oriented capital to various sectors and across wider EMDEs geographies than in the past. Despite significant efforts to distill lessons from transactions to date, disseminate specialized knowledge, and ultimately mainstream blended finance practices, the volume of blended finance remains in the single to double digit USD billions depending on the blended finance definition and data source used – generally flat across all sectors over the last decade and actually declining since the pandemic in the climate finance space – a worrisome trend against the backdrop of increasing fundamental challenges for capital mobilization in EMDEs over the last two decades (see Box 1).[4]

As an example, a typical clean energy investment in EMDEs has a cost of capital of two to three times that in AEs (IMF, 2023). Based on a set of past projects, IEA estimates that the country specific base rate accounts for the majority of the overall cost of capital for EMDEs projects, between 60 percent to nearly 90 percent (IEA, 2023a). IEA also quantifies how the ability to mobilize private capital for climate projects in EMDEs is directly linked to the overall enabling environment. An analysis of IFC's equity investments shows that a 1 percent increase in cumulative annualized GDP (gross domestic product) growth over the life of an average IFC investment result in a 6.6 percent increase in returns (IEA, IFC, 2023).

Box 1

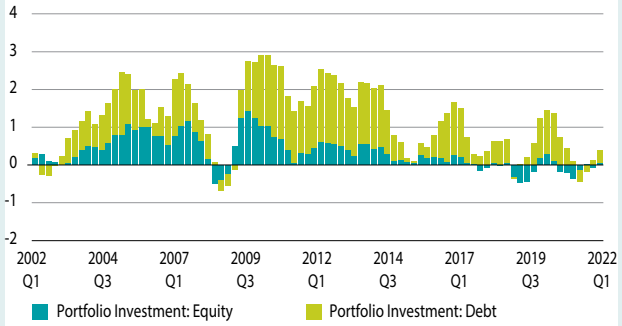
EMDEs: Evolving Context and Climate Investment Flows

As of 2022 AEs are home to 80 percent of global financial assets held by financial institutions (of total USD 489 trillion). EMDEs, excluding China, hold domestic financial assets that represent less than 5 percent of global financial assets. AE investors make their allocation decisions to EMDEs based on their institutional mandates, specific investment objectives and desired risk/return profile. While EMDEs account for about 40 percent of the world population and contributed about 66 percent of global GDP growth over the last decade, investment funds currently allocate only about 10 percent of their assets to EMDEs, down from 12 percent just a couple of years ago, and EMDEs allocation in ESG funds is even lower at 6 percent (IMF GFSR, 2022). Many large institutional investors avoid EMDEs altogether.

Over the last two decades, investors' appetite for investments in EMDEs has fluctuated (Figure 4). In the early 2000s, the private sector was buoyant about EMDEs, with expectations that these markets would be the engine of global growth and that this would translate into higher expected returns compared to more developed markets. Capital inflows to EMDEs were disrupted by the global financial crisis (GFC) in 2008. Post GFC, as interest rates in AEs dropped to zero or even negative levels in some jurisdictions, investors again sought exposure to EMDEs to meet their nominal return targets. More recently, as interest rates in AEs have started to move closer to historical norms, investors appear to be less motivated to invest in EMDEs, highlighting the challenges of investing in markets with higher macroeconomic and financial risk compared to more developed markets. Since early 2000s, interest rates for EMDEs have on average declined to their lowest levels up to the start of the pandemic in 2020. Since then rates have sharply increased to near their highest levels over the period, with below investment grade EMDEs' interest rates experiencing greater increase than investment grade EMDEs (Figure 5). …/…

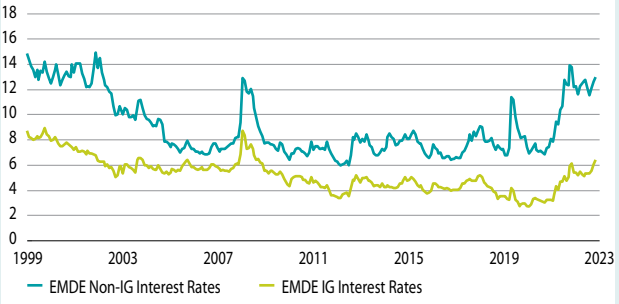
4 Estimates funds mobilized from blending range from USD 48 billion per year, on average, between 2018-2022 according to OECD to about average USD 10 billion per year by Convergence and in calendar year 2021. Based on the DFI World Group March 2023 update, in calendar year 2021 DFIs provided USD 1.9 billion in concessional funds, leveraging USD 5.3 billion in their own DFI investments and a USD 4.6 billion in private sector finance.

Figure 4 **Portfolio Flows to EMDEs, 2002-2023**



Source: IMF staff calculations.

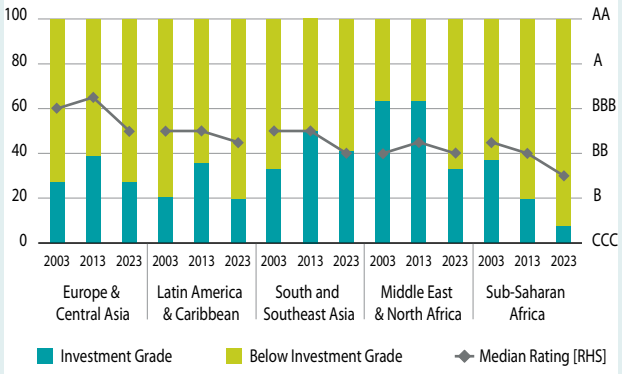
Figure 5 **EMDE Interest Rates, Investment Grade (IG) and Non-Investment Grade (Non-IG)**



Source: JPMorgan and Bloomberg data.

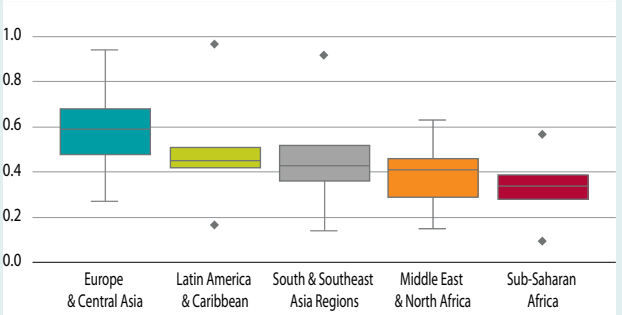
Figure 6 **Evolution of Credit Quality of EMDEs over the last 20 years across regions**

(%)



Source: IMF staff calculations.

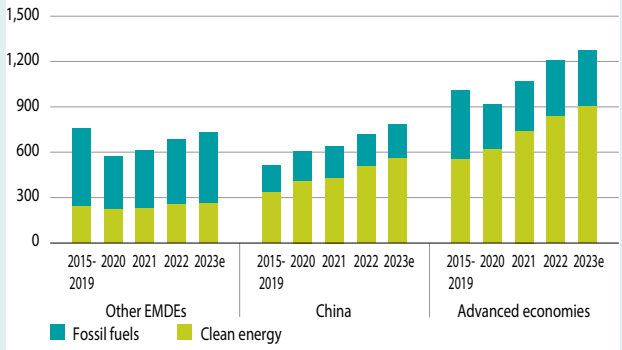
Figure 7 **EMDEs performance on Sovereign ESG Scores across Regions**



Source: Sovereign ESG scores by ESG providers (Gratcheva and Gurhy (2023)).

Figure 8 **EMDEs in Global Energy Investments, 2015-2023(e)**

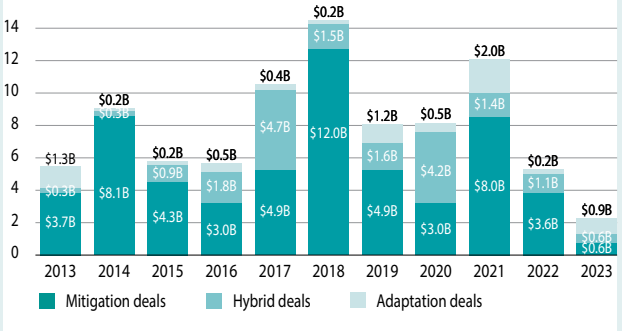
Billion USD (2022)



Source: IEA, IFC (2023).

Figure 9 **Level of Blended Finance for Climate Mitigation and Adaptation, 2013-2023 (October)**

USD Billions



Source: Convergence (2023b).

.../...

As demonstrated in Figure 6 over the last 20 years, the average credit quality of EMDEs – a proxy for a country investability – as measured by CRAs deteriorated across all regions with the large majority of EMDEs countries currently below investment grade, especially in Sub-Saharan Africa and Latin America and Caribbean regions. The distinction between instruments rated "investment grade" versus those rated "below investment grade" is of utmost significance in financial markets, because it effectively determines the potential investor base.

Market view of EMDEs sustainability has also been evolving due to increasing ESG and climate regulations broadening market perspective beyond financial returns to include non-financial factors (Mobilist, 2023b). Figure 7 provides insights into how EMDEs are measured by commercial ESG providers, which have increasingly been influencing investors' broad view of EMDEs and often factored into their capital allocation and investment exclusion decisions. While some investors interpret these ratings as an opportunity to achieve greater impact through investing in these markets, many others use this as a risk metric, further exaggerating heightened risk perception of EMDEs in the industry. Investors rely on sovereign assessments by third-party providers or develop their in-house methodologies to assess a sovereign's sustainability profile as it is seen to pose substantial fiscal and social costs for the government, including, inter alia, the country's quality of governance and policy execution, as well as how a country's long-term competitiveness is affected by its ability to manage climate and other environmental risks. Based on commercially provided sovereign ESG scores, Sub-Saharan Africa are in the bottom quartile of all EMDEs and with Middle East and North Africa faring not much better.

EMDEs have not benefited from technological advances and declining costs of clean energy (Figure 8): while clean energy investments in AEs and China have been growing, they have been more stagnant in EMDEs outside of China. China accounts for about two thirds of all EMDEs clean energy investments, while the top three countries (China, India and Brazil) account for more than three-quarters. Similarly, clean energy investments in low to lower-middle income countries are currently about 7 percent of global clean energy investments. The whole of sub-Saharan Africa – excluding South Africa – accounts for just 3 percent of EMDE energy investment (IEA, IFC, 2023). Finally, according to Convergence (2023b) the volume of blended finance for climate investments has been declining since the pandemic (Figure 9).

Most of the blended finance transactions closed to date have been in middle-income countries while low-income countries and the least developed countries have attracted a much smaller share[5]. The priority areas for blended finance have been evolving to address broader development or sustainability challenges, with current efforts focusing increasingly on low-income and the least developed countries.

Furthermore, the current blended finance practices have come under increasing criticism for relatively low mobilization and leverage ratios[6], with calls for bringing in private capital more effectively and efficiently, and for optimizing the scarce concessional capital coming from increasingly limited public sources. There is also a sense of growing fatigue from blended finance initiatives overload, as they are yet to translate to measurable advancements in what continues to be seen as a nascent field.

With growing urgency to meet the current development and climate challenges, the status quo of blended finance will fall short from delivering needed results in EMDEs. As these countries are facing increasingly challenging financial and macro environments and growing risk aversion of the investment community, the global policy and financial community needs to refocus its efforts on refining blended finance solutions and some of its practices if it is to achieve measurable, meaningful impact in the current global context.

5 Over the period 2018-2020 according to OECD only 15 percent of blended finance went to LDCs based on OECD definition and data; based on Convergence definition and data, this ratio was about 32 percent.

6 When evaluating the use of public capital in blended finance structures there are two related but distinct concepts: leverage and mobilization. The former includes commercial capital (deployed by private, public (MDBs, DFIs) and philanthropic investors at market rates) per each dollar of concessional capital. The latter includes only the amount of commercial capital from private sector per each dollar of concessional capital.

3. Definition of Blended Finance

Discussions with various stakeholders across the blended finance ecosystem, including providers of public and private capital, CRAs, blended finance intermediaries, think tanks and others, have revealed considerable divergence in views about how blended finance should be defined, implemented, and ultimately evaluated. These discussions revealed significant *knowledge gap* about other participants realities across the entire blended finance ecosystem: public and private sector entities do not fully understand each other's institutional mandates and regulatory environments, motivations and barriers, often leading to significant lead times and efforts in aligning interests or even outright competition, and thus missed opportunities. This knowledge gap leads to misperceptions of what is plausible for different blended finance stakeholder leading to fundamental contradictions and inconsistencies in expectations across the ecosystem, such as, for example, in seeking high levels of leverage at the same time as raising investment in high-risk locations, which would require higher level of concessional finance to make investments viable for private capital; or seeking standardized approaches to improve liquidity and scale at the same time as seeking structures that are tailored to specific contexts and sectors, or testing new instruments or project innovations.

There is currently no consensus on a common definition of blended finance and various parts of the blended finance ecosystem define it from their specific vantage points, with multiple definitions describing it as a mechanism, approach, instrument, or an asset class. The three most common definitions – by OECD, DFI Working Group[7] and Convergence[8] – are described below:

- The OECD defines blended finance from the perspective of policy-oriented guidance to providers of concessional capital and specifically the Development Assistance Committee (DAC) members as the strategic use of development finance for the mobilization of additional finance towards sustainable development in developing countries (OECD, 2018). OECD uses the broad definition of "development finance" and includes DFI/MBDs own resources. The term "additional funds" refers to finance without explicit developmental intent, including both concessional and non-concessional capital from public or private sources. The OECD's definition includes grants for technical assistance and capacity building seen as necessary for design and implementation of blended finance transactions. The OECD's definition refers to a *structuring approach* and various actors in blended finance ecosystem use this definition.
- The DFI Working Group definition of blended finance refers to an *investment approach* targeted at impact investors deploying blended finance structures and considers concessional capital deployed within a capital structure. DFI Working Group focuses on the use of blended finance for private sector transactions. It defines blended finance as combining *concessional capital* with DFIs' own resources and commercial finance to promote private sector markets, Sustainable Development Goals (SDGs), and private resource mobilization (DFI WG, 2023). The DFI Working Group created a common framework for *implementers* of blended finance (Enhanced DFI Principles). In contrast to OECD's, this approach requires concessional capital, which can be provided in many forms, including grants, concessional debt, concessional equity, guarantees and other risk-sharing facilities, or differential repayment terms not offered by commercial institutions[9]. DFI's definition excludes grants for technical assistance and capacity building, or for project preparation.

7 DFI Working Group is chaired by IFC and is composed of the African Development Bank, the Asian Development Bank, the Asian Infrastructure Investment Bank, the European Bank for Reconstruction and Development, the Association of European Development Finance Institutions, the European Investment Bank (EIB), the Inter-American Development Bank Group, the Islamic Corporation for the Development of the Private Sector, and the IFC. The Association of European Development Finance Institution's members are BIO (Belgium), British International Investment, Cofides (Spain), DEG (Germany), Finnfund (Finland), Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (FMO, The Netherlands), IFU (Denmark), Norfund (Norway), OeEB (Austria), Proparco (France), Sifem (Switzerland), Simest/CDP (Italy), Sofid (Portugal), and Swedfund (Sweden).

8 Convergence is a global network for blended finance and hosts the largest database of blended finance transactions globally www.convergence.finance/

9 The DFI Working Group provides its annual reporting through similar categories of instruments, namely debt, equity, guarantees and grant-based instruments. According to the latest Joint Report by DFI Working Group (March 2023 update), the most prominent blended finance instrument is senior debt comprising 42 percent of total committed concessional investment volume by the Working Group in calendar year 2021, followed by risk-sharing facilities and guarantees (21 percent), equity (16 percent), and subordinated debt (11 percent). Performance grants and other grants made up the remaining. The use of risk-sharing facilities or guarantees, and performance grants were more pronounced in finance/banking sector.

- Convergence defines blended finance as a structuring approach whereby concessional capital from public or philanthropic sources is used to mobilize private sector investment in sustainable development.[10] Convergence's database only captures transactions that include both concessional capital and commercial capital at the transaction level. This is more aligned to the DFI Working Group blended finance definition though some differences remain, such as inclusion of technical assistance and of concessional capital provided by philanthropic sources.

With increasing participation of private financial institutions in blended finance initiatives, some newer blended participants apply the term "blended finance" to any blending of public and private resources, while others use the term to refer to specific structures or sets of structures that allow organizations with different objectives to invest alongside each other while achieving their own objectives. With the increasing urgency to mobilize private finance for what has predominantly been seen as the domain of development and public finance, the current discourse is increasingly oriented around the use of public resources to lever up commercial finance from private sources to where it would not have been invested otherwise. This application of "blending" allows aligning of investors and financial flows with a common set of financial and sustainability objectives, such as achievement of SDGs and/or Paris goals.

As a result of the multitude of blended finance definitions, blended finance transaction data and project statistics are not necessarily directly comparable, which can lead to inconsistent or even contradictory claims. Furthermore, different vantage points of stakeholders across the blended finance ecosystem led to the use of common terminology that may imply different concepts. For example, private sector institutions often refer to DFIs as providing "public finance" whether their instruments are deployed at concessional or market terms, while DFIs use "public finance" to imply concessional funds coming from public donors, while non-public donors can also deploy their funds at concessional terms.

This technical document acknowledges the evolving nature of blended finance and for the purposes of this publication defines it as *the strategic use of a limited amount of concessional resources to mobilize financing from public and private financial institutions to achieve climate impacts*. In this document blended finance stakeholders are defined by the *nature* of investment (i.e. whether concessional or at market rate) that they bring to the blended structuring rather than by the *source* of capital (i.e. whether coming from public or private institutions). Throughout the document, the term "public capital" is used to denote capital from various sources that is deployed on concessional terms often in pursuit of particular policy or an impact objective. The term "private capital" refers to any capital (both private and public sources) that seeks commercial objectives[11]. The term "development finance" refers specifically to DFIs that deploy their finance in pursuit of specific developmental goals in both public and private projects, as well as those impact-oriented investors that are prioritizing non-financial objectives over an investment return. While there is some overlap between these sources of funds and their objectives, this characterization allows to better articulate specific issues in blended finance and identify potential solutions. In the next section, the blended finance ecosystem is discussed from the perspective of these definitions.

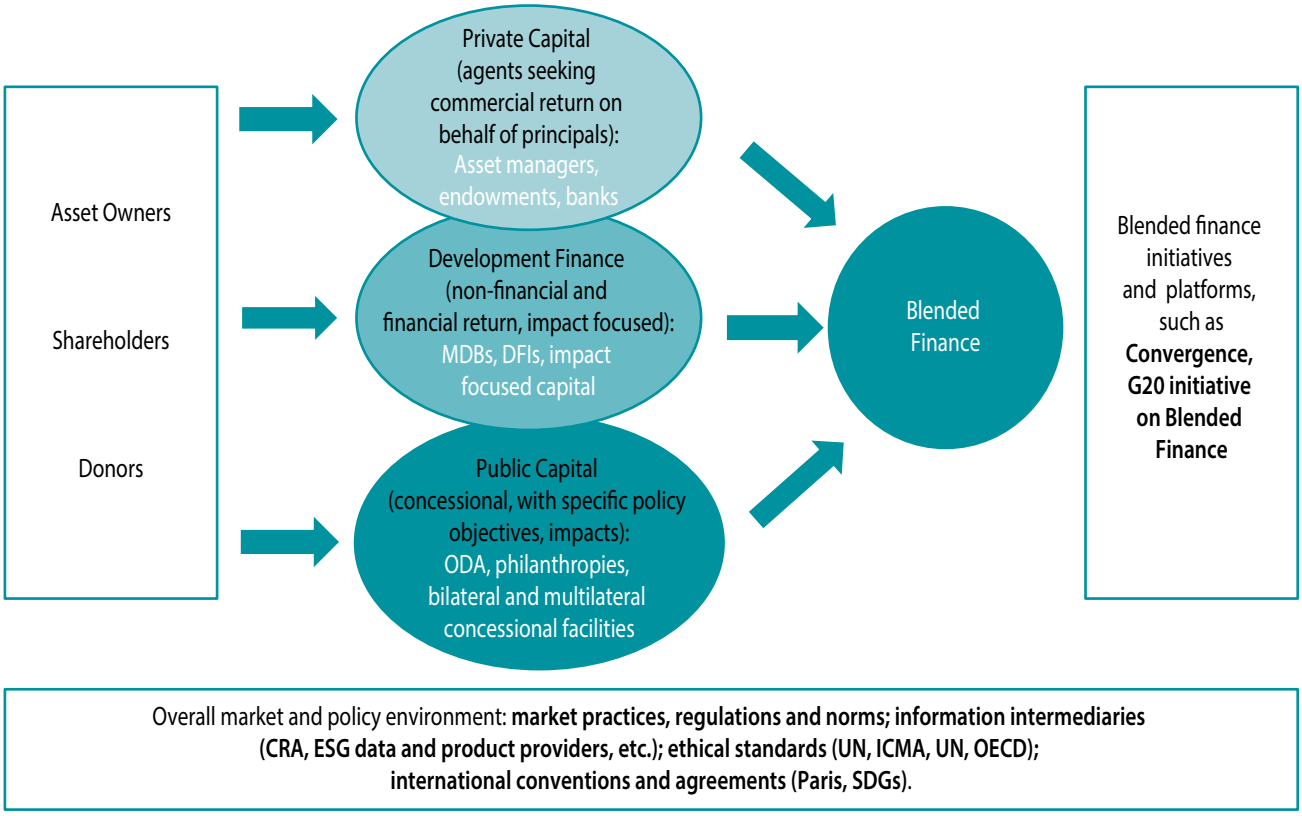
10 See www.convergence.finance/blended-finance, last consulted on 16 August 2023.

11 Throughout the report the terms "commercial" and "market" are used interchangeably, such as for example commercial or market returns.

4. Blended Finance Ecosystem

As Figure 10 illustrates, designing and implementing blended finance in EMDEs (and more broadly) requires partnership across a very diverse set of institutional players: public ODA, donors, philanthropies, various concessional facilities), private (asset managers, institutional investors, banks, endowments, etc.) and DFIs.

Figure 10 **Blended Finance Ecosystem**

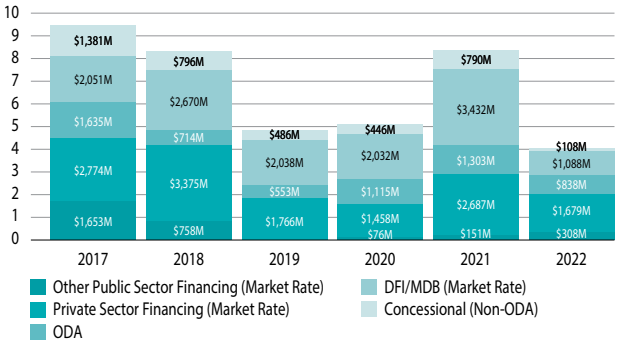


Source: IMF staff.

Figure 11 presents total volumes of funding sources for climate blended finance transactions, based on Convergence data over the period of 2017-2022. These funding sources include a range of institutions, which operate under different mandates, regulatory regimes, project objectives and timelines, play complementary roles. The blended finance ecosystem also operates within an enabling environment of government and other agencies (regulators, central banks, finance ministries) and is influenced by the evolving market practices and standards, international conventions and agreements, and blended finance initiatives and platforms.

Figure 11 **Sources of financing to climate blended finance transactions, 2017-2022**

USD Billions



Source: Convergence (2023b).

Providers of Public Finance

Concessional capital is provided primarily by foundations, donor governments and Non-governmental organizations (NGOs). Multi-donor funds, generally managed by DFIs, are the most frequent suppliers of concessional capital to blended finance transactions.[12] Foundations and NGOs are also important catalytic capital providers.[13]

According to ClimateWorks, it is estimated that in 2021 total philanthropic giving by foundations and individuals grew to USD 810 billion. Total giving to climate change mitigation from individuals and foundations still represents less than 2 percent of global philanthropic giving. Two thirds of this funding went to AEs, while Latin America and Africa combined represented less than 10 percent of the total foundation funding for climate mitigation in 2021 (ClimateWorks, 2022). Out of USD 37 billion in bilateral allocable ODA from DAC members in 2021, only 28 percent targeted climate objectives according to OECD. Thus, the total volume of available concessional capital for climate mitigation and adaptation has been extremely limited.

Over 2016-21, USD 121 billion was mobilized for climate from the private sector by ODA interventions. The vast majority – USD 98 billion (representing 81 percent of the total) – targeted climate change mitigation only. USD 13 billion (11 percent) was mobilised for adaptation only and about USD 9 billion (8 percent) for both mitigation and adaptation objectives. While private climate finance mobilised largely targeted mitigation, private finance mobilised for adaptation was on an increasing trend across income groups, jumping from less than 1 percent in 2016 to 11 percent and 6 percent in low-middle income countries (LMICs) and upper-middle income countries (UMICs) respectively in 2020 – before dropping again in 2021 at 8 percent in LMICs and 1 percent in UMICs – and jumping from 10 percent in 2016 to 47.5 percent in 2021 in LICs (OECD, 2023).

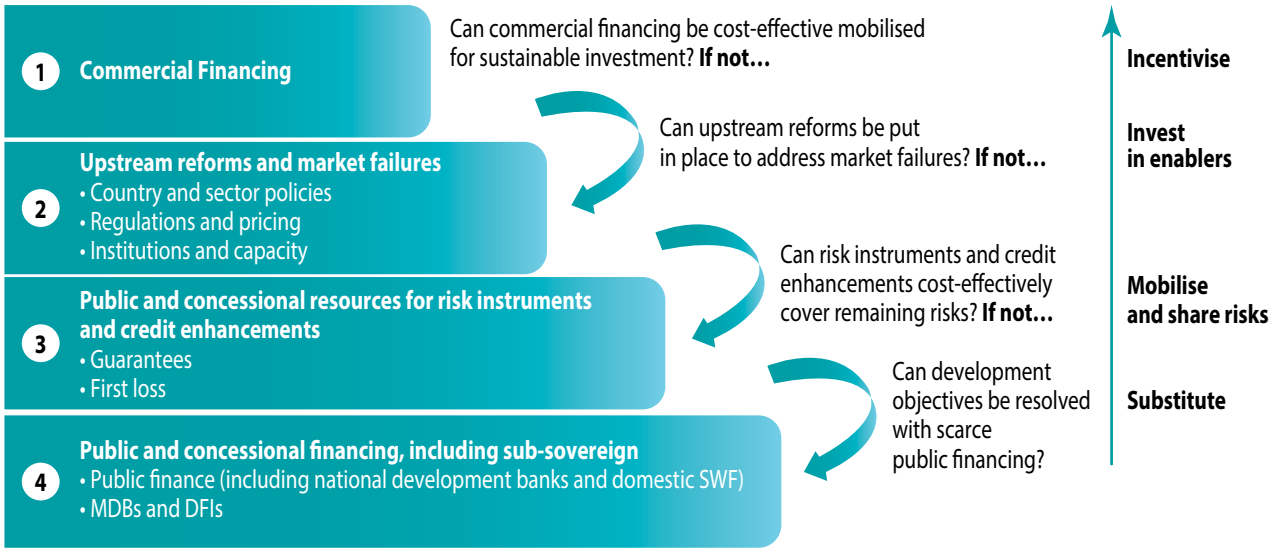
To optimize the use of limited public resources, the World Bank has introduced the Cascade framework summarized in Figure 12, which provides a sequenced approach to engaging the private sector. This framework first seeks to mobilize commercial finance, enabled by upstream reforms where necessary to address market failures and barriers to private sector investment at the country and sector level. Where risks remain high, the priority will be to apply guarantees and risk-sharing instruments. Only where market solutions are not possible through sector reform and risk mitigation would official/public resources be used (World Bank, 2017).

With increasing focus on mobilizing private capital and with greater awareness of blended finance, all donor countries are currently building or augmenting their internal capacity to increase cooperation in the blended finance space, maximize development results, avoid duplication, and ensure that scarce resources are appropriately directed. In addition to funding multi-donor funds, generally managed by MDBs, as a growing practice around half of DAC members now identify in-house blended finance programs, in which financing from a donor government is deployed directly into a blended finance transaction. In this case, commitments are allocated by national aid agencies such as Global Affairs Canada, other line departments or ministries such as the UK Department for Business, Energy, & Industrial Strategy (Convergence, 2023a).

12 In select cases, development agencies and multi-donor funds may provide commercial capital to a transaction, often for the purposes of gap or bridge financing.

13 There are a number of foundations that offer program-related investments or invest their endowments in blended finance transactions on commercial terms.

Figure 12 **World Bank's Cascade Framework**



Source: OECD, Based on (World Bank Group, 2018[22]), *Approach Paper "Creating Markets for Sustainable Growth and Development" 2018, https://ieg.worldbankgroup.org/sites/default/files/Data/reports/ap-creating-markets.pdf.*

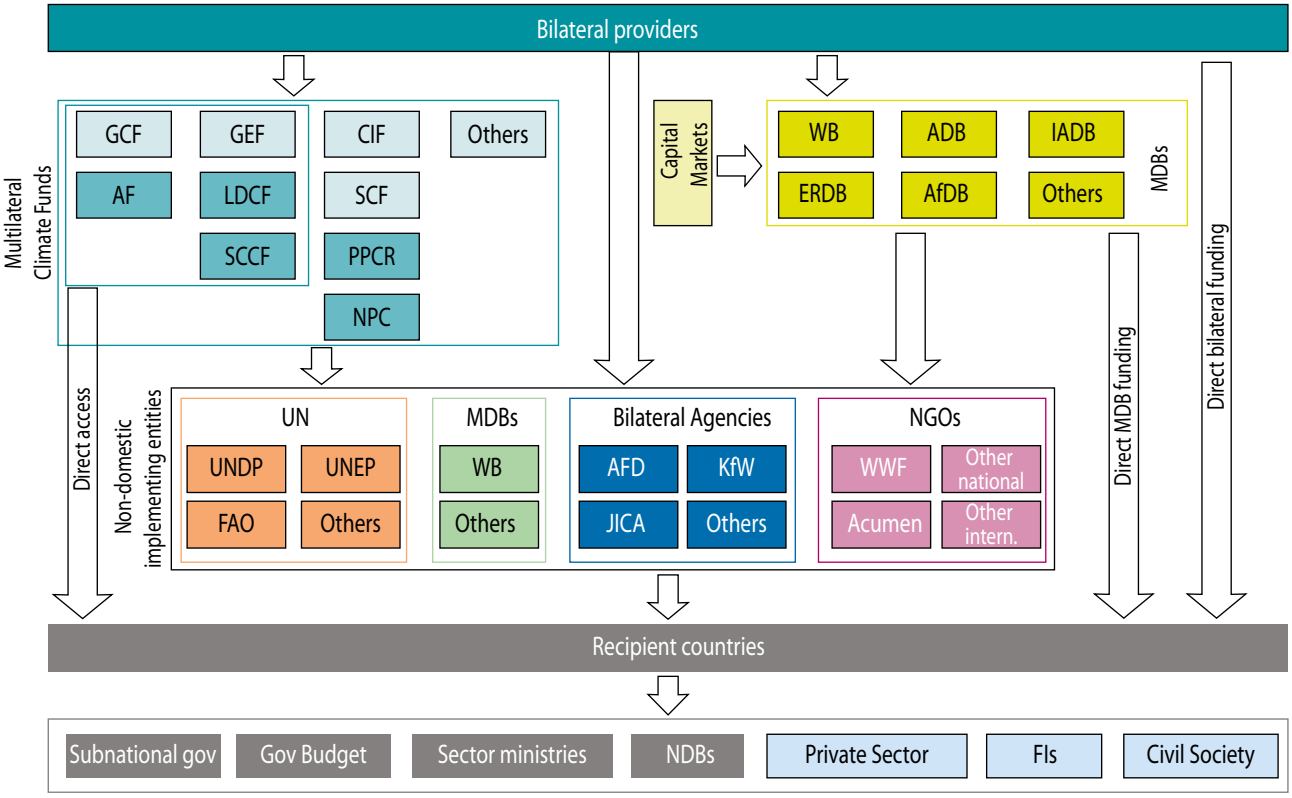
A direct result of this diversity in donors' provision of their resources is the fragmentation of public climate finance as it comprises a multitude of actors with overlapping mandates, preferences, and areas of expertise. The corresponding institutional landscape is characterized by a number of non-integrated institutions, as well as government ministries, in developing and developed countries, which operate at both international and national levels (Skovgaard et al. (2023), depicted in Figure 13. Over the last 30 years, at least 94 green-climate funds have been created to finance climate related projects and programs in EMDEs and 81 are active funds as of end 2022 (Le Houérou, 2023). These institutions include the two largest and most prominent multilateral funds providing concessional funds for climate projects: the USD 13.5 billion Global Climate Fund (GCF) created within the United Nations Framework Convention on Climate Change[14] and the World Bank-affiliated USD 11.1 billion Climate Investment Funds (CIF)[15]. These funds operate quite differently, with CIF implementing its projects exclusively through six MDBs (ADB, AfDB, EBRD, IBRD, IDB, IFC), while GCF operates through a network of over 200 Accredited Entities[16] and delivery partners who work directly with developing countries on project design and implementation.

14 www.greenclimate.fund/.

15 www.cif.org/.

16 GCF Accredited Entities can be private or public, non-governmental, sub-national, national, regional or international, as long as they meet the GCF standards.

Figure 13 **Fragmentation of Climate Finance Landscape**



Source: OECD (2023).

Providers of Development Finance: DFIs

Bilateral and multilateral DFIs are specialized development banks or subsidiaries set up to support private sector development in developing countries. DFIs are a critical source of financing in developing countries and play an important role in blended finance. They are generally majority owned by one or more national governments and capitalized by national or international development funds. DFIs can therefore include both bilateral DFIs, which serve to implement their government's foreign development and cooperation policy, and multilateral institutions, or MDBs, which are backed by multiple governments. DFIs have provided both concessional and commercial capital to blended finance transactions, with concessional capital primarily provided from donor-funded pools of concessional capital (e.g., CIF, GCF, Global Environmental Facility, or other sources).

Over the last decade, DFIs have been the single largest participant in blended finance transactions, with 75 percent of deals including participation from at least one DFI (Convergence, 2022c), though these projects comprise a small subset of DFIs overall portfolios.

In 2020 and 2021, MDBs and bilateral DFIs provided USD 179 billion and USD 168 billion respectively of total long-term finance to its clients, including their own accounts and private capital mobilization. For middle-income countries and low-income countries total private capital mobilized by DFIs was USD 64.1 billion in 2020 and USD 63.3 billion in 2021. In low-income countries, the estimate of private finance mobilized by DFIs was USD 15.6 billion in 2020 and USD 5.2 billion in 2021, of which 5.6 percent and 6 percent respectively was mobilized by European DFIs (EDFIs)[17] with the reminder (over 90 percent) mobilized by MDBs (DFIs, 2023[18]).

17 EDFI's members are BIO (Belgium), British International Investment (BII, UK), Cofides (Spain), DEG (Germany), Finnfund (Finland), FMO (The Netherlands), IFU (Denmark), Norfund (Norway), OeEB (Austria), Proparco (France), Sifem (Switzerland), Simest/CDP (Italy), Sofid (Portugal), and Swedfund (Sweden).

18 This joint report was prepared by a group of MDBs, collectively known as the "MDB Task Force on Mobilization," composed of AfDB, ADB, AIIB, EBRD, EIB, IDB and IDB Invest, IFC, IsDB, MIGA, and the World Bank. The report also includes the Association of European Development Finance Institutions.

With regards to blended concessional finance, DFIs financed long term projects with a total volume of USD 13.4 billion in 2021. Concessional funds committed to these projects via DFIs were just below USD 2 billion. The total volume of private sector finance leveraged was approximately USD 4.6 billion, and DFI own-account investments in these projects were about USD 5.3 billion. The balance of funds came from other concessional contributions (USD 0.7 billion) and contributions from other public sources at commercial rates (USD 0.9 billion) (DFI WG, 2023).

MDBs and bilateral DFIs play a fundamental role in designing and delivering international public finance to EMDEs (Modak et al., 2023). They identify high-development impact, pioneering projects with clear additionality; they mobilize private sector capital for these projects using innovative financing structures, such as guarantees, insurance, and securitization; they balance financial and development objectives in blended concessional finance projects by ensuring that their investments are financially sustainable and generate appropriate returns; and they coordinate with other stakeholders, such as governments, private sector investors, civil society organizations, and international organizations (IFC, 2021). Essentially, they act simultaneously as creators and arrangers of investable projects and assets, mobilizers of private investment, and in some cases, where the risk profile is consistent with their mandate, as de-riskers to create investment assets for private investors (Convergence, 2022a; Mutambatsere & Schellekens, 2020).

While they have development-oriented mandates, they rely on their high credit ratings to raise capital in capital markets at a low cost to provide it to their members. MDBs are guided by their mandate and financial policies to deploy their funds through a variety of financial instruments ranging from concessional to market-rate terms. The conservative investing profile of MDBs is partly due to the capital adequacy ratios required by their government shareholders, which mandate high amounts of reserved capital, as well as their desire to maintain high credit ratings which allow them to borrow at low interest rates in the global capital markets.

In recent years, MDBs have been criticized for not taking on greater investment risk, for example, by investing in least developed markets or in the health and education sectors. Over the last couple of years, the Group of 20 (G20) has been engaging with MDBs on enhancing their mandates, financial capacity, and effectiveness (G20, 2023a). The G20 also engaged an independent expert group (IEG) to assess MDBs as a system. In particular, the IEG called for tripling of the MDBs both non-concessional and concessional finance with the focus on mobilizing private capital (G20, 2023b). Also, "expanding MDB de-risking facilities for crowding in private sector investments" and "encouraging IFIs, including MDBs, other relevant IOs, and public funds more broadly to mobilize private finance" are specific recommendations of the Sustainable Finance Roadmap (Focus area 4, action 14 and 15) prepared and monitored by the G20 Sustainable Finance Working Group since 2021.

Providers of Private Capital

The segment of private sector participants in the blended ecosystem in EMDEs includes a wide range of entities, each with a different set of motivations to deploy their capital and expectations with respect to risk-adjusted returns on their investments. Commercial banks, institutional investors, asset managers, endowments, and other entities seek to meet their return targets based on their investment objectives and/or liabilities, regulatory and policy environment, and evolving market perceptions, among other factors. **Box 1** provides historic perspective into the evolution of private sector's perceptions of and investment in EMDEs over the last two decades.

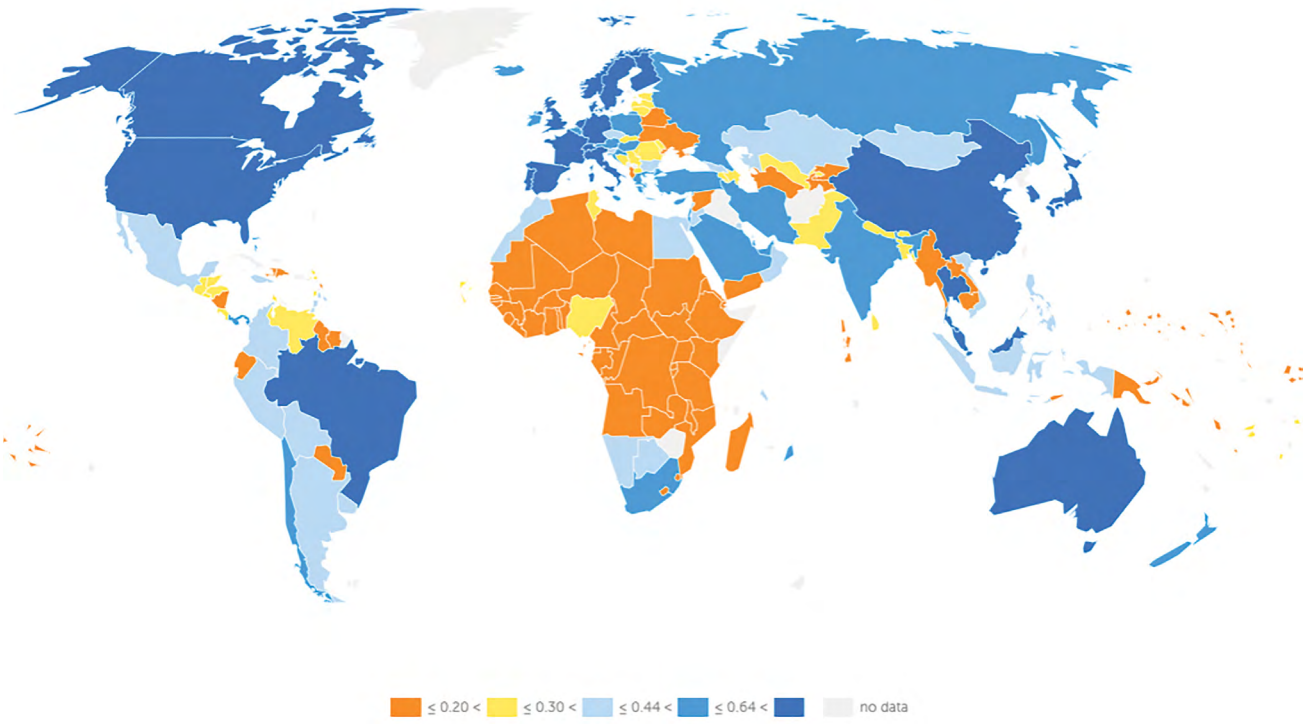
While operating across different authorizing and operating environments, investors' return expectations are driven by country-, sector- and project-specific factors, while overall risk appetite are shaped by factors internal to the institution, as well prevailing market condition and regulatory environment. When evaluating different climate investment opportunities, investors compare their risk/return profiles, which largely reflect two sets of risks: the country-specific risks and project-specific risk. As mentioned earlier, for EMDEs the country specific risk comprises up 60 to 90 percent of the total investment risk. In the case of blended finance transactions, investors shared that they factor in additional complexity as blended finance involves a number of different approaches and instruments rather than a single financial instrument that fits neatly within a particular asset class, whether public or private. As a result, blended finance is not easily integrated into well-established business models or investment practices of financial institutions. Blended finance is time and effort intensive, requiring more complex treatment by investors within their governance and investment processes, as well as by regulators.

The rest of the section summarizes the perspective of investors with regards to the assessment of risks and opportunities related to their participation in a climate blended finance structure in EMDEs, encompassing structural issues, market environment and global risk sentiment, all of which affect investors' appetite for these investments.

- **EMDE country risk.** These risks are associated with the country's macroeconomic fundamentals, political stability and institutional strength, quality of governance, policy certainty, general investment conditions (such as property rights and sanctity of contracts) and financial conditions. Investors typically see these risks as integral to the country's overall investability, crucial background affecting how they consider any individual projects in the country. Box 1 presents detailed discussion on increasingly challenging fundamentals and global market environment that will shape investors appetite for the foreseeable future.

- **EMDE domestic capital market development.** EMDEs are very heterogeneous as a group, with large emerging markets, such as China in particular, in a better position to mobilize domestic resources for climate investments. By contrast, smaller and lower income countries are limited in their ability to rely on their domestic financial sector to finance climate-related investments as depicted in Figure 14. A low level of financial and capital market development is a binding constraint for many EMDEs, which also deters international investors from gaining exposure to projects within those countries. Even EMDEs with more developed capital markets may have complex operating environments such as withholding taxes, local regulatory restrictions, and potential currency repatriation restrictions that effectively discourage international investors from entering those markets. As a result, much of the funding for climate finance in EMDEs must be raised externally, adding foreign exchange (FX) risks and/or extra costs to the mix.

Figure 14 **Financial and Capital Market Development of Countries**



Source: IMF Financial Development Index Database.
Note: The data are as of 2021. The financial development index is a relative ranking of countries on the depth (size and liquidity), access (ability of individuals and companies to access financial services), and efficiency (ability of institutions to provide financial services at low cost and with sustainable revenues and level of activity of capital markets) of their financial institutions and financial markets.

- **EMDE climate investments considerations: mitigation and adaptation.** The premium for climate projects incorporates risks associated with a specific sector, as well as with the project's design and execution, including specific regulation, technology maturity, technical and implementation capacity, etc. Climate projects span a broad range of themes and sectors, including clean energy investment needed to align EMDEs to pathways consistent with long-term sustainable development and Paris Agreement targets, as well as investments in adaptation and resilience, sustainable agriculture, management of natural capital and conservation, biodiversity, and more. As these sectors face a diverse set of challenges and prospects for generating sustainable revenue stream to meet private sector return requirements, investors have been quite selective about specific sectors as investment opportunities. For example, from the 15-year experience of CIF with projects on renewable energy, energy efficiency, energy storage and clean transport, USD 1 of CIF concessional funding generated USD 11 of project funding, a third of which came from private sources, about 30 percent from MDBs and nearly 40 percent from other public sources (CIF, 2023). In contrast, in the case of CIF projects in most vulnerable countries targeting adaptation and resilience, USD 1 of CIF concessional funding mobilized USD 2.3, only 4 percent of which from the private sector, with the reminder's one third coming from other public sources and two thirds from MDBs (CIF, 2023). Similar mobilization ratios are seen in the CIF's Forest investment Program with a 4 percent participation from the private sector (CIF, 2023).

- **Insufficient viable project pipeline in EMDEs.** Various investor surveys and anecdotal evidence reveal that private capital for climate investment in EMDEs often does not find the right projects meeting their financial and non-financial requirements–despite being increasingly interested in gaining exposure to such projects due to evolving climate regulatory and policy environment, as well as growing demand from the asset owners, shareholders and other constituents in the financial sector to be more directly involved in meeting Paris and SDGs goals. Developing viable energy projects is a time consuming, knowledge-intensive, high-risk activity. Only 10 percent of infrastructure projects progress from pipeline to financial close, while around 80 percent of projects fail at the feasibility and business stage plan (IEA, IFC, 2023).

- **Blended finance structures/instruments.** In cases where blended finance is deployed to finance climate projects, investors face additional layers of complexity according to their feedback. According to CPI statistics, implemented blended finance transactions to date have been typically 2-5 years in design and development to align distinct institutional objectives, realities on the ground and multiple interests. Investors shared that these transactions are typically bespoke, relatively small, highly tailored to specific circumstances and sectors, and not easily transferable to different contexts or scalable to attract the interest of global institutional investors. According to Convergence, the average size of a blended climate mitigation transaction was USD 93 million in 2021, somewhat larger than the average blended adaptation transaction (USD 79 million) and the average hybrid transaction (USD 65 million). Furthermore, blended finance transactions often lack exit strategies for investors: exiting investments and realizing returns can be challenging, especially in markets with limited liquidity and without well-established exit options.

While these considerations are common for large institutions, a growing number of smaller specialized investors have reframed how they evaluate climate investments in EMDEs: rather than focusing on historical risk/return analysis, these investors are motivated by forward-looking expectation of climate impact or broader sustainability objectives, fully understand complex nature of investing in EMDEs, have track record or experience in climate or sustainable finance space, are actively taking advantage of information asymmetry and/or regulatory ambiguity, and often do not require concessional capital as a financial incentive or for de-risking. From a policy perspective, the question is whether the approach of these specialized investors can be scaled over a reasonable timeframe, whether their experience can be replicated by other investors with different mandates, liquidity expectations and return targets, and ultimately how far pooling of projects in EMDEs can go in addressing some of the broader concerns of global investors.

Discussions with large investors also revealed that even within these institutions there could be a wide dispersion in appetites for more complex approaches required for blended finance in EMDEs: teams that have a broader sustainability or ESG mandates are often more open than the teams that are engaged in the "core" balance sheet activities.

Still, investors shared that even investment teams that are open to participating in these complex transactions may face significant headwinds in convincing their credit and/or investment committees on the merits of EMDEs climate investments on the basis of sustainability objectives or helping to achieve global public goods. These committee members are even further removed from investment operations to fully appreciate these opportunities, often lack prior experience or exposure to EMDEs and, within the more recent context of significantly higher interest rates in AEs, are more comfortable with achieving their return targets in more familiar developed markets.

Broader enabling environment: information intermediaries (CRAs, ESG Data Providers), market norms and professional conduct setters, etc.

For nearly two centuries, CRAs have been assessing the capacity and willingness of an issuer to meet its financial obligations on time and in full. CRAs have become crucial to the global financial architecture, influencing capital flows in EMDEs. In addition, growing interest of the financial industry in climate and other sustainability factors have resulted in the advent of ESG industry – now a USD 7.7 billion industry and expected to quadruple by 2030 – that aims to give an extra-financial assessment sustainability driven by changing societal perspectives on what constitutes investment "return". Commercial ESG data providers, ESG specialists and advisors increasingly influence the capital allocation and investment decisions.

In contrast with regulated CRAs credit products, unregulated ESG data and products providers industry is a nascent field that continues to evolve. Several studies have demonstrated that ESG mainstreaming can divert capital away from EMDEs due to a number of factors: interviews with market participants confirmed the view that deficiencies in ESG data and scoring may exacerbate inefficiencies in capital allocation and reduce flows to the markets most in need of investment (Mobilist, 2023b). Furthermore, climate factors are still not adequately reflected by the majority of CRA and ESG products: there is little agreement in the financial industry on what constitutes good performance on environmental issues and what factors are material across climate change, natural hazards, energy and resource management, land use and agriculture, as well as across countries with different income levels and regions (IMF GFSR (2023) and Gratcheva and Gurhy (2023)). Standard ESG screening and regulatory frameworks were largely created in developed market contexts and are not necessarily appropriate for directing investment in EMDEs (Mobilist, 2023b).

Box 2

Role of CRAs in Specific case of EMDEs Debt Swaps for Nature

The difficulties many emerging market sovereigns face in mobilizing capital for climate-related initiatives, while already being saddled by high debt burdens, have increased international community's attention on debt-for-nature swaps and on the role of CRAs in these transactions. In these transactions, a country's debt burden to creditors is reduced with the savings being channeled towards the country's climate or environmental conservation measures. One of the main CRAs, Moody's, assesses these swaps ex-post on a case-by-case basis, determining after a transaction has taken place whether it constitutes a distressed exchange.

Out of the four recent debt swap for nature transactions (Gabon and Ecuador in 2023, Barbados in 2022 and Belize in 2021), Ecuador and Belize were deemed to be a distressed exchange and a default, while Gabon and Barbados were not. At the time of the transactions, Gabon and Barbados had Caa1 rating with yields about 11 percent and 8 percent respectively, which did not signal significant financial stress for the two countries. By contrast, Belize had already missed debt payments a few months before the swap, indicating extreme credit stress at its Caa3 rating. Similarly rated Ecuador appeared to lack market access as it was going through a period of severe political turmoil around the time of the transaction. Bond yields for both Ecuador and Belize were also at highly distressed levels at over 20 percent. This was reflected in the deep discount that the bonds were bought back at, at 45 percent for Belize and over 60 percent for Ecuador" (OMFIF, 2023).

CRAs, by definition, are of critical importance to the success of a debt-for-nature swap, or any debt swap (including for climate, education, or other sustainability focused themes). This is because at the core of the swap is the changing of an agreed-upon obligation between the debtor and the creditor. As the credit rating agency exists to ascertain and predict the likelihood of a debtor repaying an agreed-upon debt on time, and in full, any threat to that principle must be reflected in the credit rating of that entity. Therefore, the question for a CRA is whether the swap is done to aid with a specific development objective, such as conservation or something else agreed-upon, or to avoid a default. To answer this question, a CRA must decipher whether the country in question is negotiating from a position of distress, or not. If the country is showing increasing indebtedness, or lacking access to the capital markets, then they likely will be adjudged to be seeking to swap their debt to, primarily, avoid going into default. If this is adjudged to be the case, the CRA will rule the swap as a 'distressed debt exchange', or 'coerced debt exchange', and subsequently place the country into default in order to warn other creditors and accurately reflect the current position of the country (Cash, 2024).

Once countries are in default, they will have even further challenges in accessing capital markets and mobilizing private finance going forward. This, on the face of it, is unhelpful to countries considering utilizing swaps or from entities encouraging the usage of swaps to focus more attention on critical conservation efforts. However, Moody's credit actions make it clear that debt-for-nature swaps are not to be used as a means of reducing indebtedness only.

5. Barriers to Scaling Blended Finance in EMDEs

Using information from surveys conducted of NGFS and IIF members, discussions with a wide range of stakeholders across the blended finance ecosystem, and engagement with blended finance initiatives, the following key barriers to scaling up blended finance in EMDEs have been identified.

I. Structural issues and challenges specific to EMDEs (prior to any climate considerations)

Although many EMDEs over the past couple of decades have put in considerable effort to strengthen their fundamentals and develop their domestic financial system, a number of structural issues remain in their financial architecture that need to be addressed in order to mobilize climate and sustainable finance more broadly. The extent of these gaps is often differentiated by the level of economic development of EMDEs.

For example, as previously noted, more than half of emerging markets and nearly all of developing economies do not reach an investment-grade rating or have no rating at all. Many fiduciaries define their sole eligible investments as those rated "investment grade". Various banking and insurance regulations discourage, if not prohibit, regulated entities from holding non-investment-grade investments. In addition, gaps in the legal and institutional frameworks lead to heightened legal and institutional uncertainty, contributing to high real and perceived risks in EMDEs and implementation risks that create additional barriers and hurdles to the already-high financing costs. With the deterioration of the fiscal outlook and high levels of debt post pandemic, external financing costs have increased sharply recently, especially for lower-rated EMDEs, emphasizing the challenging prospects faced by many of these countries. These challenges are amplified by the low level of domestic capital market development in many EMDEs and complex operating environments in countries with more developed capital markets, such as local regulatory restrictions – factors that deter or disincentivize international investors.

FX risk and lack of hedging options is also one of the factors often cited by market participants as a barrier to scaling up climate finance in EMDEs. In large emerging markets, FX hedging opportunities are available, although they are still relatively expensive and not necessarily deployable at the scale that would be needed to foster the financing flows needed to align climate investments with net-zero objectives. In smaller EMDEs, FX hedging instruments are often simply not available, leaving investors or borrowers (depending on the currency composition of the transaction) exposed to FX fluctuations over the lifespan of a project. That said, a number of market participants have indicated that FX risk broadly reflects EMDEs macro fundamentals and balance of payments and is only one of the many factors that impede the scaling up of private climate finance to EMDEs, with issues like lack of viable projects, unattractive risk-reward profile, poor liquidity or lack of standardization often being the key deterrents to climate investment in EMDEs (see below).

II. Limited investment opportunities and lack of viable climate projects in EMDEs

One of the consistent issues being raised in the context of EMDEs is the lack of viable climate projects. There is a widely held view that there are simply too few investment opportunities related to climate, especially in smaller countries. Importantly, viable projects in lower-income countries are driven primarily by MDBs and their own balance sheet deployment. Market participants have noted how at times this results in crowding out by development finance leading to limited participation of the private sector. Lack of access to MDB's deal pipeline on the part of private investors has also been emphasized as a factor reducing investment opportunities.

In addition, project implementation in EMDEs often faces slow disbursements, regulatory uncertainties, and usually long timelines well beyond those required in the private sector. Typical projects are small, apart from large infrastructure projects, leading to high due diligence costs.

The high *perceived* risks associated with climate projects in EMDEs also contribute to their unattractive risk-reward profiles and lack of commercial viability. Such perception is related to both EMDE-specific country-risk and climate project-related risks, amplified by the lack of public data on performance of climate investments already made.

Finally, the number of viable climate projects remains relatively small also because projects are often not

accurately priced for the services and benefits they provide – both from a private and a social standpoint. Among the factors cited as hindering a proper pricing of climate risks and opportunities is an insufficiently developed climate information architecture (see IMF 2021, Strengthening the Climate Information Architecture), the absence of national climate policies and objectives, the lack of carbon pricing frameworks, and the dearth of technical climate capacity expertise. These factors are seen as prerequisite for an efficient pricing of climate risks and opportunities that private sector investors are confronted with in EMDEs (IMF, 2021).

III. Data gaps, fragmented disclosures standards and classification regimes

As in many other areas of climate finance, climate data gaps in terms of data quality, consistency and comparability across countries (NGFS, 2022) is a significant barrier. These challenges are amplified by the lack of robust frameworks for transition taxonomies and sustainable finance alignment approaches and still fragmented reporting and disclosure standards in EMDEs. To drive higher levels of private capital into blended finance in EMDEs, urgent efforts are needed to address these concerns in order to allow for efficient pricing of climate risks and opportunities by investors. Several important steps have been taken recently, including work by NGFS on climate data (NGFS 2022, Bridging Data Gaps), the International Sustainability Standards Board (ISSB)'s release of global sustainability and climate standards, and the joint work on taxonomies by the IMF, World Bank and OECD (IMF-WB-OECD, 2023). However, there are still a number of implementation challenges and EMDE-specific issues that warrant careful consideration and further work.

For example, while there is data across different blended finance initiatives, it is not comparable across multiple definitions nor comprehensive. A lack of data comparability and transparency, particularly regarding the commercial dimension, can undermine the use of blended finance and the potential for the market to grow. In raising the need to enhance the availability, transparency, and credibility of climate investment data, many stakeholders have called upon the MDBs to allow better access to their databases. For instance, access to the Global Emerging Markets (GEMs) database is seen as extremely important, with suggestions made to make it public to foster a more efficient pricing of climate opportunities and to track the performance over time of these projects.

IV. Knowledge gap across blended finance ecosystem

Discussions across the blended finance ecosystem revealed that there is a knowledge gap as well as need for technical assistance and capacity development with respect to blended finance in EMDEs. Blended finance is still seen as a relatively niche concept, with various definitions and perceptions about risks and opportunities. Many stakeholders involved in blended finance view it as an area that is generally complex and requiring expertise in financial engineering and background in EMDEs. Furthermore, financial institutions often lack relevant knowledge and sufficient resources to take on blended finance projects especially if it involves new or unfamiliar technology, sector (e.g., green technology for agriculture) or geography. Many large institutional investors and banks don't typically invest in EMDEs and currently may not see the need to build sufficient internal capacity to pursue opportunities in EMDEs. Relating to adaptation more specifically, there is also a general lack of knowledge in the private sector regarding existing or future adaptation projects, which creates an obvious investment barrier (OECD, 2023).

The public sector in EMDEs, especially in smaller countries, would also benefit from capacity development and technical assistance. For instance, the OECD cited the need to develop internal skills and capacity in the public sector to be able to effectively engage with the private sector players in blended finance (OECD guidance, 2020). Limitations in organizational capacity, including the technical expertise of staff to structure, manage, and execute transactions was cited as one of the barriers that limited the adoption of blended finance across donors' organizations.

The risk-averse behavior of the public sector in providing grants to funds that are pursuing riskier financial structures (with larger potential impact) has been also cited as a factor limiting the potential of blended finance structures. And a contributing factor seems to be a lack of suitable skills in relevant institutions across donor and recipient governments, particularly around equity and guarantees/insurance.[19]

19 As per the NGFS members' survey findings.

V. *Bespoke nature and complexity of blended finance instruments: lack of liquidity, standardization and scalability*

Based on the feedback from practitioners, blended finance transactions are complex and often bespoke, so hard to replicate in other sectors or contexts and have taken 2 to 5 years to design and implement to date. As financial instruments, blended finance structures falling outside of the traditional asset classes often require more complex treatment by investors within their governance and investment processes, as well as by regulators. In addition, blended finance structures are seen as lacking sufficient liquidity either because of the size, type of specific instrument or insufficient exit options: exiting investments and realizing returns can be challenging, especially in markets with limited depth and well-established exit options which is often the case in EMDEs.

The bespoke and often opportunistic nature of blended finance structures, coupled with lack of liquidity, makes them difficult to scale and aggregate. In turn, this reduces pooling and diversification benefits, liquidity, and ultimately attractiveness to global institutional investors. Together with the fragmentation in reporting standards, the issue of standardization has been cited by various stakeholder groups in the blended finance ecosystem as an area that needs to be addressed urgently. Greater standardization can help promote transparency and comparability across different projects, fostering liquidity (including through a possible inclusion in indexes) and tradability of blended finance instruments – a prerequisite to scaling up private capital in EMDEs.

VI. *Lack of climate policies and regulatory clarity*

Market participants have indicated that it will be very challenging to achieve the scale of global capital flows required for financing climate transition and adaptation with the current climate and regulatory frameworks. Strong climate policies, including carbon pricing, and commitments to achieve well-defined and measurable net-zero targets are crucial for enhancing the catalytic effect of public capital. This includes the availability of high quality and consistent climate data, the adoption of global disclosure standards (albeit cognizant of the EMDE-specific challenges, especially smaller countries with underdeveloped domestic capital markets) the development of transition taxonomies in EMDEs, and the establishment of standards for climate-related financial instruments. Market participants also emphasized the importance of comparability and interoperability of approaches across jurisdictions, especially if mandatory global standards cannot be adopted.

One of the key issues that has been consistently highlighted during discussions both by the public and the private sector has been the need to provide much-needed regulatory clarity to address possible regulatory and practical barriers with respect to blended finance transactions. Global institutional investors and banking entities have referenced a number of regulatory and practical challenges to their participation in blended finance projects in EMDEs, such as the treatment of risk capital and liquidity requirements, risk-retention rules, treatment of credit insurance and financial guarantees by MDBs, and fiduciary duty regulation. These obstacles may vary depending on the jurisdiction, its regulatory landscape, as well as unclear legal frameworks, conflicting policies across government levels, investment restrictions, capital deployment limits in specific markets, and the need to comply with local regulations and reporting standards.

Stakeholder feedback has also cited the absence of regulatory incentives for the financial industry to participate in blended finance and in their view restrictive regulations as a constraint on mobilization of higher levels of private finance into blended finance transactions. For instance, they mentioned that certain prudential requirements of Basel III regulation for commercial banks and the Solvency II regulation for insurance companies set high capital charges for high-risk investments in EMDEs and certain instruments in segments that are generally seen as risky. Market participants have also pointed to regulatory barriers that limit the level of participation of pension funds and asset managers in EMDEs blended finance transactions. The issue of comparable treatment by regulators in different jurisdictions of similar instruments, such as, MDB guarantees has also been raised.[20] While the safety and soundness of the financial system remain a paramount objective

20 For example, one US bank raised the issue that US banks do not get capital relief that apparently the EU banks do. In EU regulators have interpreted relief when MDB guarantees are involved. Consequently, it was cited that this has led to US banks not taking on as much risk as they could.

of policymakers, the challenge they face is to assess the possible trade-off – which often involves an intertemporal dimension – between financial supervisory and regulatory objectives and societal climate and sustainability broader goals.[21]

In the context of G20, there is a call for a full review of financial regulation, similar to the one done after the GFC. Specifically, the call is for a review of how aligned existing financial rules are – such as Basel III or AML-CFT rules for banking, and the EU's Solvency II for insurance – to ensure that they are not inadvertently obstructing scaling up flows of finance for sustainable assets in EMDEs (Lankes and Robins, 2023).

Finally, market participants also raised the issues of regulatory clarity with respect to their mandates on climate finance. For instance, many central banks and financial supervisors do not consider facilitating blended finance within their objectives.[22] Even for authorities that have a broader mandate, the work on blended finance is still in its infancy, and often in collaboration with their Ministry of Finance (MoF) or other government initiatives, where it is felt that the mandates on blended finance are more logically located.

VII. Broader enabling environment: information intermediaries (such as CRAs, ESG data and products providers, sustainability practitioners, etc.)

Explosive growth of the ESG industry have led to ESG products and ESG specialists influencing and, in some cases, dictating, which instruments or investments are labeled as sustainable, lending legitimacy to instruments and investors that claim to be helping in achieving sustainability or climate goals (Financial Times, October 3 2023). Similarly, these developments are now increasingly impacting how investors perceive countries' sustainability, affecting their capital allocation and risk perception (Mobilist, 2023b), as described earlier.

There are notable differences in the CRAs and ESG providers business models that affect how they have been responding to the market demand for more sustainability – based products and services. Specifically, compared with CRA ratings, which are originated and paid for by issuers, ESG scores/ratings/rankings are "unsolicited" as ESG assessments are typically not requested by issuers and are paid for by investors. Furthermore, the ESG provider industry is nascent, currently not regulated (though this is expected to evolve) and comprise a diverse set of players, while CRAs are regulated and have a well-established mandate, methodologies, and terminologies, and the sector is dominated by the three main players (Fitch, Moody's and S&P).

Several studies have highlighted that there is a significant and growing gap between the perception of what ESG ratings assess and what they actually achieve. Climate factors, furthermore, are still not adequately reflected within ESG products and there is little agreement among ESG providers on what constitutes good performance on environmental issues and what environmental (E) factors are material across climate change, natural hazards, energy and resource management, land use and agriculture, and so forth, as well as across countries with different income levels and regions. CRAs, on the other hand, fall short of fully reflecting EMDEs preparedness to a low-carbon transition or their exposure to stranded asset risks because of high level of hydrocarbons. Furthermore, lower-middle-income and low-income countries are generally not rewarded in CRAs sovereign credit assessments for good E policies, which includes climate mitigation and adaptation policies. EMDEs that depend on fossil fuels with exposure to high levels of stranded asset risks are not penalized by CRAs (IMF GFSR, 2023). This has led to confusion and growing scepticism in the financial sector towards inflated sustainability claims and investors have been increasingly seeking guidance and clarity from regulators on what constitutes "sustainable", "green", "transition" and "low-carbon" investments. Given growing concerns around greenwashing, the role of ESG ratings have come under greater regulatory scrutiny by global regulators.

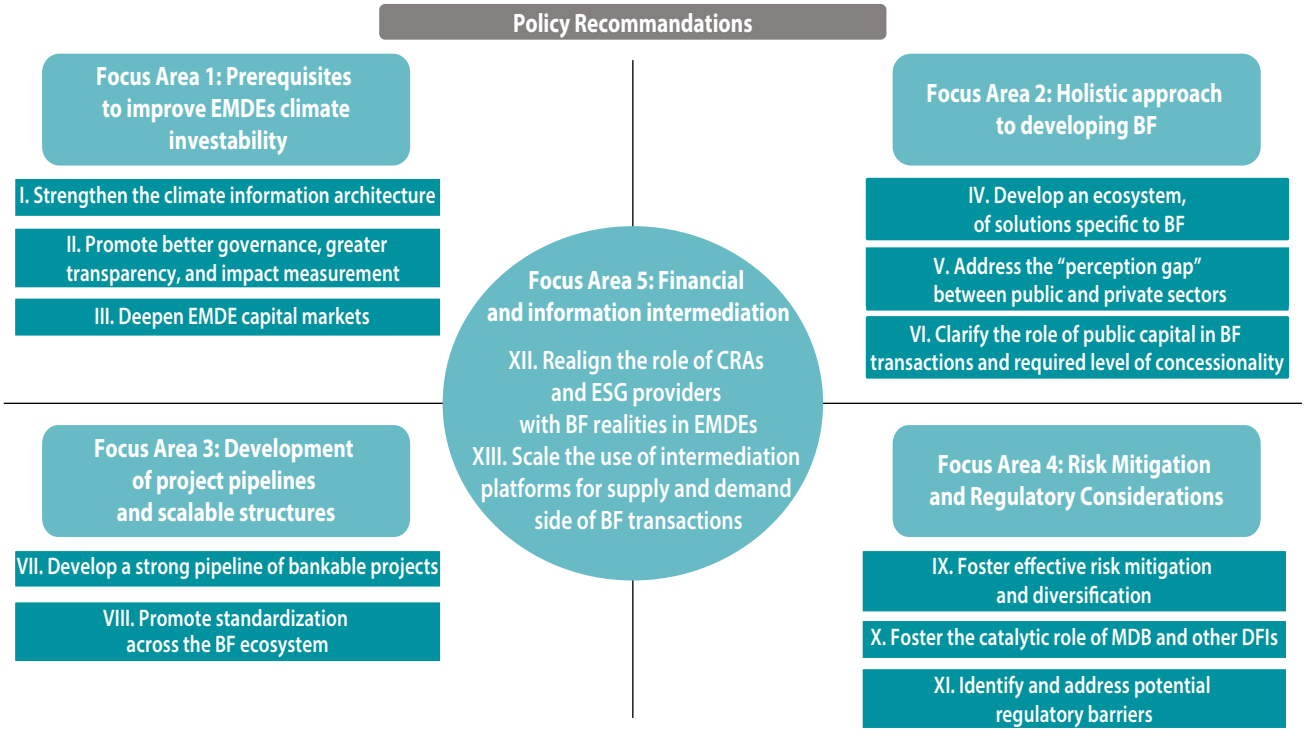
21 AML/CFT regulations were also cited as a factor contributing to higher transaction costs for private investments in higher risk EMDEs.

22 As per the NGFS members' survey findings. In terms of risk management, the MoF typically controls risk exposure, and the development agency is the implementer operating within the risk requirements/exposure received. Without the ability to use risk instruments, such as guarantees, it could prove difficult to build momentum in the implementing agencies.

6. Policy Recommendations

To overcome the range of barriers described in the previous section, both in the overall ecosystem and more specific to EMDEs and blended finance, the approach forward requires an "ecosystem of solutions": encompassing awareness; addressing informational asymmetries; developing robust project pipelines; building institutional and public capacity; fostering financial innovation; broadening of private investor base; establishing mechanisms for risk sharing and effective impact climate measurement, removing possible practical and regulatory barriers, and adopting a new mandate for the public sector as depicted in Figure 15.

Figure 15 **Policy Recommendations**



6.1 Prerequisites to improve EMDEs climate investability

In order to improve EMDEs investability there are several key prerequisites that are necessary, such as strengthening the climate information architecture, having in place robust governance and transparency standards, and deepening domestic capital markets.

I. Strengthen the climate information architecture

A fundamental aspect of ensuring that EMDEs can attract and scale up climate blended finance is to have in place the prerequisites to create an attractive investment environment for the private sector. These include the right climate policies (such as carbon pricing, which can be highly effective in shifting capital flows toward-carbon investments) and strong structural policies, specifically those aimed at strengthening macroeconomic fundamentals, deepening capital markets, improving policy predictability and fostering institutional and governance frameworks. These prerequisites are crucial to lower the cost of capital, mobilize domestic capital markets, and improve the credit ratings of EMDEs (IMF GFSR, 2023). While there is no single measure that can deliver on the climate goals, the role of carbon pricing is crucial and a necessary step to reduce emissions either as stand alone or as an integral part of any policy package (IMF Fiscal Monitor, 2023). Carbon pricing is a prerequisite in various forms, like carbon tax, feebate and voluntary carbon markets (VCMs).

Policymakers should also strengthen the climate information architecture (data, classifications and taxonomies, and disclosures). High-quality, reliable and comparable data are crucial for efficient pricing of climate risks and opportunities. Transition taxonomies can help EMDEs incentivize the transition toward a greener economy. The disclosure standards proposed by the ISSB will help create a global baseline, but implementation challenges and level of adoption within EMDEs are likely to be an important issue. Standard setters and regulators should engage with EMDEs to develop appropriate pathways for adoption that would address these challenges while recognizing individual jurisdictions' institutional and legal specificities as well as the right balance across geographies to reflect local context and specific needs.

More generally, a strong climate information architecture that supports interoperability and a global baseline can help lower the risk of market fragmentation and regulatory arbitrage. With at least 29 taxonomies initiated globally, and multiple and diverse principles, standards, labels and disclosure requirements, there is increasing risk of fragmentation and unnecessary complexity (High Level Expert Group (HLEG), 2023). A strong climate information architecture is also essential to address the risk of greenwashing by fostering market transparency, integrity and alignment with climate objectives to achieve climate impact, thereby setting the proper incentives for the private sector (IMF GFSR, 2023; Gardes-Landolfini et al., 2023).

Increasing the availability of data that is currently treated as proprietary by public and private sector institutions could help reduce the gap between perceived and actual credit risk in EMDEs (credit performance). In this regard, working with partners such as MDBs' GEMs Risk Database Consortium could move the needle in the right direction.

II. Promote better governance, greater transparency, and impact measurement

Having in place sound governance practices and good investor relations is important for EMDEs to foster an investment climate that is more likely to be able to attract private climate finance at scale (IIF, 2022a and 2022b). Similarly, improving assessment and transparency about climate/environmental standards and integrating them into blended finance structures is vital.

Transparency is critical to ensure investor confidence that project managers in EMDEs are applying the highest standards in the use of blended finance[23]. It is important that there is public disclosure of estimated subsidies for each proposed project as well as the justification for why they are necessary to improve the risk-profile of projects[24]. DFIs can play an important role in improving transparency in blended finance transactions by promoting greater disclosure of project details, terms, and returns. Some of the ways in which DFIs can improve transparency are:

- **Developing reporting standards** for blended finance transactions by working with other stakeholders. These standards can help ensure that project details, terms, and returns are disclosed in a consistent and transparent manner.
- **Monitoring performance and impact** of blended finance projects to ensure that they are meeting their objectives. This can include tracking progress towards the SDGs or climate goals, assessing the impact on local communities, and evaluating financial returns. Measuring impact is crucial to better reflect climate factors and cover material differences across EMDEs in terms of exposures and opportunities related to climate change.
- **Sharing information** about blended finance transactions with other stakeholders to promote greater transparency. This can include publishing reports on their websites, participating in industry events, or engaging with civil society organizations.

ESG data providers should offer climate impact-oriented scores as a tool for fund managers and investors to better align climate outcomes and investor expectations. Regulators should consider evaluating the sufficiency of oversight of ESG ratings and data providers (IOSCO, 2021). CRAs and ESG methodologies should be realigned to meet growing investor demand for climate-aligned tools and products. These information intermediaries are critical in redirecting capital to green investments, including in EMDEs. Many factors related to a country's long-term sustainability, such as mineral wealth, fossil fuels, and forest capital could be material for a sovereign credit assessment, but are

23 As per the NGFS members' survey findings.

24 Note IFC has disclosed project subsidy levels on their external website (Summary of Investment Information) since 2019.

not adequately reflected in sovereign ratings, especially for middle- and low-income countries (IMF GFSR, 2023; Gratcheva et al., 2022).

III. Deepen EMDE capital markets

There is a need to continue to prioritize policy and regulatory reforms for deepening and broadening domestic capital markets and financial intermediation capacity in EMDEs in order to optimize the private capital available locally). The capital market is an excellent aggregator of demand of capital from project developers and supply of capital from private investors. There are growing pools of savings accumulating in some EMDEs which could be channeled towards climate and SDG goals by increasing the sophistication of local capital markets and financial intermediaries. Many SDG and climate investment needs in EMDEs are small transactions of less than USD 5 million that are best implemented by private-sector players located in EMDEs. The DFIs are well positioned to play a role in building ecosystems of financial intermediaries and leveraging local capital markets by unlocking the private capital given their long-standing experience and in-depth understanding of risks and opportunities in investing in EMDEs (HLEG, 2023). Deep local capital markets also reduce the need to hedge FX risk in EMDEs, one of the obstacles often cited by private capital, especially in smaller EMDEs.

Developing capital markets in EMDEs is a complex and multifaceted long-term process requiring sustained efforts, strong institutional support, and collaboration among various stakeholders, including government authorities, financial institutions, and MDBs. As an example of the potential of domestic resources available for blended finance transactions, a number of EMDEs have accumulated sizable assets in their pension system that are often restricted by domestic regulation to invest primarily in government bonds. Expanding pension funds' eligible investments and their technical capacity would help unlock additional resources for blended finance.

6.2 Holistic approach to developing blended finance

A holistic approach is needed, encompassing a range of both vertical and horizontal solutions to blended finance; bridging the knowledge gaps between the key stakeholders; and determining the role of public capital with the right level of concessionality.

IV. Develop an ecosystem of solutions specific to blended finance

To address the barriers and impediments that prevent the scaling up of blended finance in EMDEs, policymakers should approach the blended finance ecosystem in a holistic way, looking at an "ecosystem of solutions". This requires focusing contemporaneously on both "vertical" solutions (like innovative financing solutions, pooling of risk, standardization, etc.) as well as "horizontal" solutions (like PPFs to help develop viable projects through project identification, project preparation, and other stages of project developments) in order to broaden the set of private sector investors and properly align their incentives.

It is important to note that different solutions may be needed for adaptation finance, which is more relevant for smaller EMDEs. While more than half of Greenhouse gas (GHG) emissions come from middle-income countries, smaller EMDEs contribute less than 15 percent to global GHG emissions. They have fewer climate mitigation investment needs, but also less access to global markets and less ability to attract private capital to fund adaptation projects. Blended finance has a particularly important role to play in adaptation finance – and needs to be deployed strategically to mobilize private finance for adaptation. Adaptation projects often lack a clear stream of revenues available to the private sector, requiring a larger footprint by the public sector. At the same time, it can serve as a catalyst for the mobilization of further financial resources, encouraging private sector engagement in sectors with potential return on investments such as agriculture or infrastructure. Donors and international providers need to better understand and link specific preferences of private investors, notably the need for secure revenue streams, with adaptation specific-project characteristics. This would include scaling up tailored approaches like risk-sharing, utilizing intermediaries to address financiers' unfamiliarity with adaptation, and revising mitigation-related viable projects to heighten their contribution to adaptation (OECD, 2023).

V. Address the knowledge gap between public and private sectors

There is a need to bridge the knowledge gap between public and private sectors–a goal that can be achieved only by working collaboratively across all stakeholders in the blended finance ecosystem, appreciating the different perspectives and complementary contributions that each

bring to blended finance transactions. Close collaboration between public and private sectors and philanthropists, along with support from international organizations and development banks, will be crucial to successfully scale up blended finance in EMDEs. For example, developing consensus on a clear and consistent common definition of blended finance shared by all stakeholders would contribute to removing some of the perception gaps that currently exist within the ecosystem.

Fundamentally, private sector incentives should be naturally aligned with adaptation action: to protect their own operations, and to identify, and respond to demand for adaptation goods and services through a market response. In essence, well-adapted business will be more profitable businesses, and collectively will contribute to delivering enhanced adaptation for economies and societies. However, investments into adaptation activities would typically be internal to businesses, and be financed through their balance sheets, rather than discrete financial products – which makes them difficult to separate out and measure. Moreover, the ability of private sector entities to invest efficiently into adaptation depends on key enablers for efficient investment and allocation decisions, including availability of relevant information, as well as access to financial products and services, to optimise investments (OECD, 2023).

VI. Clarify the role of public capital in blended finance transactions and required level of concessionality

With respect to the role of concessional capital in blended finance transactions, policymakers should assess the right amount of concessional funding necessary to finalize a project, attract private capital, and achieve significant impact without overspending or allowing private participants to realize abnormal returns (the "crowding-in and minimum concessionality" principle as formulated by the IFC, 2020)[25].

Blended finance allows the public sector, sometimes with the support of philanthropies, to improve the risk-return profile of investment opportunities and broaden the range of private investors. In particular, de-risking mechanisms in blended finance transactions (such as first-loss equity and guarantees), can be highly effective in addressing specific barriers and impediments that disincentivize private investors and thus help scale up the participation of private capital in climate projects. Given the limited availability of public funding and the large climate investment needs in EMDEs, public resources should be used as efficiently as possible. Importantly, policymakers should be cognizant of the possible trade-off between high impact and scale mobilization. Not all projects and transactions require concessional public capital to be economically viable. There are a few specialized funds focused on infrastructure projects in EMDEs, for example, that have attracted long-term investors and benefited from low default rates on those projects and the strong performance of debt instruments (such as A/B loan structures) issued to finance them. The challenge is how to scale solutions that are bespoke and relatively illiquid.

Policymakers should clarify where blended finance is needed while avoiding moral hazard. Scarce public capital should be tailored to specific projects and transactions where market failures and information externalities discourage the private sector from playing a role in the financing of such projects. Market price signals remain crucial to effectively price risk and opportunities. In channeling public funding to specific projects and blended finance solutions, authorities should consider not only scarcity of such funding but also its effectiveness and appropriateness with respect to climate objectives. A coordinated, programmatic approach is thus critical to effectively pool upfront catalytic funding from different donors, philanthropies, and other concessional finance providers to de-risk and unleash private capital towards high-impact projects which in turn will contribute to just and resilient energy transition in EMDEs.

As an example of these efforts is the recently launched the Blended Finance for the Energy Transition (BFET) by the US Department of State, in collaboration with the Office of the U.S. Special Presidential Envoy for Climate (SPEC) and in partnership with USAID. The objective of this program is to use a competitive process to "auction" catalytic co-funding from the U.S. government and other partners with the goal of mobilizing USD 1 billion of private capital to advance emerging markets' energy transition efforts and help limit global average temperature rise to 1.5°C. The program was launched in April 2023 by issuing an initial request for concept proposals for private sector-led blended finance structures and revealed a significant breadth of approaches

25 As per the NGFS members' survey findings.

to private sector participation in blended finance[26]. This process also serves as a "price discovery" mechanism to test the minimal required concessional capital to catalyze private capital.

Following its 2016 decision to pursue an enhanced enabling environment for partnerships with the private sector, in early 2022 DAC launched a review of provisional directives on donors' private sector instruments, such as loans, guarantees and equity instruments. The review aims to deliver a set of revised methods that would, inter alia, strengthen the integrity and effectiveness of ODA, and facilitate a greater mobilization of private finance for the SDGs through the use of donor capital. In April 2023, the DAC approved revised methods for the treatment of credit guarantees and loans to the private sector in ODA to be implemented in 2024 (on activities in 2023) with the possibility of a one-year transition period (i.e. 2025 reporting on 2024 activities).

With regards to credit guarantees specifically, donors will be able to include their credit guarantees in ODA. These revised methods do not only incentivise the use of this instrument to unlock greater volumes of financing for the SDGs, but also foster transparency and accountability in blended finance. Currently, DAC members are finalising their discussions on the treatment of equities, mezzanine finance and some other instruments as well as transparency, accountability and other qualitative provisions. The review is expected to conclude later in 2023.

6.3 Development of project pipeline and scalable structures

There is a need to develop a pipeline of viable projects and scalable structures with higher overall levels of standardisation, to attract investment capital into EMDEs and reduce information asymmetries between investors and project developers. Support across the value chain using a project life cycle approach to build robust pipelines of investable projects is required.

VII. Develop a strong pipeline of viable projects

There is a need to engage with EMDE project sponsors from early conceptualization through financing to develop and bring to market viable projects by focusing efforts on design funding and technical support to improve project viability and success, project advisory and structuring services to reach financial close, standardization and asset pooling for greater scale through diversification.

Lack of viable projects is one of the major barriers consistently highlighted across the range of private sector investors in the blended finance ecosystem. Without viable projects, efforts to attract private capital to EMDEs will inexorably fail. MBDs, bilateral DFIs, philanthropies and other stakeholders should scale up the provision of technical assistance to help develop and bring to market viable projects through project design, preparation, and execution.

PPFs are used as means of developing viable, investment-ready projects. PPFs can provide a wide range of support depending on a project's stage and sector and includes technical and/or financial support. Key criteria include the probability of success, sufficient estimated cash flows to cover costs and produce returns that meet investor expectations, and whether the project will be implemented by a creditworthy entity. Though the assessment of whether a project is viable may differ between specific financiers, they all need confidence that the regulatory, environmental, social, and economic factors are unlikely to prevent the project from being completed. A PPF would typically focus on four key areas. These include upstream support (strengthening of regulatory, institutional, and infrastructure planning frameworks to improve the enabling environment for efficient and sustainable private sector investment), project identification and prioritization (by working with government and other stakeholders), feasibility assessment and project structuring (that would include funding technical, commercial and environment appraisal exercises), and private sector support (for projects that reach financial close). For example, the

26 Fund managers or other capital deployers were encouraged to submit concept proposals for blended finance structures that deploy catalytic funding into a portfolio of emerging market-based companies and/or real assets that advance the energy transition in this decade. Of the 30 concepts submitted, 10 shortlisted concepts were invited to submit full proposals. The process intends to make two awards of non-repayable catalytic capital from the U.S. government, totaling USD 15 million. The State Department and USAID engaged with other donors to contribute additional catalytic capital, and with DFIs, to contribute concessional debt or equity financing to the winning proposals. The Danish Ministry of Foreign Affairs and the Danish Investment Fund for Developing Countries (IFU) intend to co-fund the U.S. award with USD $15 million of repayable catalytic grant capital. The winners will be announced at COP28.]

GCF provides project preparation through accredited entities in countries. The IADB has several successful cases of development and implementation of sustainable infrastructure investment framework in Colombia, Brazil, Peru, and Chile.

While there are some private sector investors specialized in financing early stages of project development, such players remain relatively small in terms of scale and reach. In addition, there remain challenges in exiting these exposures, especially in countries with relatively illiquid markets. These players, however, play an important role in terms of price discovery and provision of financing at specific stages of the project life cycle, where often neither the private nor the public sector seem to have an appetite to step in. Policymakers should support the deployment of scarce private capital targeting project development and execution and should facilitate its exit by bundling when it can be replaced by different forms of private capital. Toward this end, incubators have proved successful and could play an important role if deployed at scale.[27]

VIII. Promote standardization across the blended finance ecosystem

Standardization is important because it can help reduce information asymmetries between investors and project developers, leading to more efficient allocation of capital and better risk management. Standardization can also help promote the development of secondary markets for climate blended finance instruments, which can increase liquidity and reduce transaction costs (USAID, 2020; IFC, 2021. Ultimately, greater standardization and enhanced liquidity of blended finance instruments could lead to the creation of dedicated indices, incentivizing the participation of global investors in the blended finance ecosystem.

Policymakers should actively promote standardization, where appropriate, across the blended finance ecosystem. On the project side, greater standardization of technical assistance and warehousing of projects, documentation and processes (e.g., pre-negotiated term sheets), and contracts may streamline due diligence and speed up project development, execution and commercialization. This may ultimately improve access to financing by providing clarity and protection to investors and end-beneficiaries (HLEG, 2023). On the financing side, greater standardization with respect to facilities, guarantees, insurance programs and blended finance solutions may foster project aggregation and promote more efficient risk diversification. Integrated platforms could help consolidate a still fragmented landscape of donors and investors.

While fostering standardization, authorities should be mindful of possible tradeoffs between country-specific requirements and potential for innovation and the benefits of greater standardization in terms of access to global investors.

6.4 Risk mitigation and regulatory considerations

To create an enabling environment for blended finance to succeed, efforts need to be directed at fostering effective risk mitigation and diversification, harness more effectively the catalytic role of MDBs and DFIs, as well as identify and address potential regulatory barriers.

IX. Foster effective risk mitigation and diversification

Policymakers should foster effective risk mitigation and support innovative blended finance solutions that promote risk diversification through risk pooling and tranching. This will attract different sources of private capital, with different risk profiles and investment time horizons. Against a backdrop of rising debt levels post pandemic and higher financing costs resulting from the global monetary policy tightening, there is a need to deploy more equity capital (both public and private) as anchor investors to maximize risk absorption capacity and scale up private climate finance. Ultimately, blended finance solutions and the capital stack should be optimized based on specific project and country circumstances (use of debt vs equity, loans vs guarantees, tranching, etc.).

27 An example of the Catalytic Climate Finance Facility (CC Facility) launched in May 2023 by Convergence and Climate Policy Initiative (CPI), two global leaders in blended and climate finance, with an objective to provide grant funding and technical support for early-stage and market-ready blended climate finance vehicles. With an initial size of USD 12 million, the CC Facility has plans to increase its funding up to USD 100 million. www.convergence.finance/news-and-events/news/78aLNIrxAt09DFtC1JmtA0/view.

Securitization structures can be effective in leveraging public funds and crowd in private capital for blended finance solutions. As a risk transfer mechanism, securitization allows MDBs to free up balance sheets (by placing credit risk with private investors), offering additional lending capacity for new projects. Tranching of risk can be applied at the project level as well as at the fund level. In sectors where small-scale transactions are common, policymakers should consider using a portfolio approach, which allows to scale up private investment volume and to enable risk diversification for private investors.

More broadly, blended finance solutions should be available not only at the project level but also at a consolidated level (e.g., at the fund level) to attract global investors not interested in exposure to individual projects. A portfolio approach focused on pooling projects has stronger scalability potential, contributing to widening the investor base in the blended finance ecosystem.

X. Foster the catalytic role of MDB and other DFIs

Public-private risk sharing, in particular through enhancing financial capacity and operating models of MDBs, is crucial to attracting more capital by overcoming hurdles to private investments in EMDEs. Blended finance solutions, in particular through an enhanced use of guarantees by MBDs and donors, can help reduce real and perceived risks in EMDEs, improve the risk-return profile of investments, and broaden the investor base if designed well and used appropriately. In low-income countries, larger international capital support may be needed given the challenges in attracting private capital.

Market participants have indicated that MDBs and bilateral DFIs should adopt a more standardized "wholesale" approach to concessional capital, centered on access and speed, funding, delivery to market and off take, rather than the current more "retail" approach. There is a sense that MDBs and bilateral DFIs at times end up crowding out private capital instead of crowding it in and are often seen as competing for investments suitable for private investors and hold assets on their balance sheets as opposed to taking riskier positions and crowding in private capital.[28] Policymakers are considering how to transform MDBs' and bilateral DFIs' strategies and mandates to play a more catalytic role and more effectively crowd-in private capital in order to support the scaling up of development finance in EMDEs.

MDBs' ongoing discussions with the G20 and international community is an important step to enhance MDBs' financial capacity and operating models, based on recommendations made in the Capital Adequacy Framework Review of the G20 (G20, 2023a) and recommendations of the IEG (G20, 2023b and 2023c). Specifically, G20 IEG calls for holistic EMDEs approaches by MDBs by, *inter alia*, strengthening investment climates and building markets with more transparency with MDBs' own data to help private actors accurately assess EMDEs risk; greater use of catalytic instruments like guarantees, equity, and FX risk managements; taking on more risk on MDBs own balance sheets, but also managing that risk through portfolio level partnerships with each other (including MIGA), donors, and the private sector; stepping back from financing projects which the private sector is ready to take on (G20, 2023c).

Policymakers should also consider whether there are regulatory barriers disincentivizing the use of MDB and donor guarantees by financial institutions such as by banks and insurance companies (IMF GFSR, 2023).

XI. Identify and address potential regulatory barriers

Policymakers should consider whether there is a need to provide greater clarity with respect to the regulatory treatment of blended finance solutions and address potential practical and regulatory barriers emphasized by the private sector ("regulatory leaning in") that may disincentivize private sector participation in blended finance transactions in EMDEs[29]. Potential hurdles mentioned during engagement with dealer banks, insurance

28 DFIs have started to launch innovative financial structures through de-risked public-private funds, where they absorb the first losses through investing in junior equity to cover part of the risks investors are not willing/able to take (see HLEG).

29 The European Commission (EC) High-Level Expert Group (HLEG)'s paper on scaling up sustainable finance in low- and middle-income countries suggested that the EC could frame de-risked public-private transition and/or sustainable funds in LMICs as a new type of EU financial product, recognised in the EU financial legislation through a dedicated EU legal framework. Currently, these de-risked public-private funds fall into an asset class under the EU prudential framework which imposes substantial prudential costs (capital charges) for notably insurance companies and DFIs which greatly diminishes the funds' attractiveness and undermines the intended objective they are meant to achieve.

companies and global institutional investors include prudential requirements of Basel III regulation for banks and Solvency II regulation for insurance companies that specify high capital charges for investments in EMDEs and certain instruments in risky segments; risk-retention rules pertaining to securitization transactions; regulatory requirement related to pension funds and asset managers that limit their participation in EMDE blended finance transactions; regulatory treatment of credit insurance and financial guarantees by MDBs; and fiduciary duties restrictions for investment funds. The comparability of treatment of similar instruments by regulators in different jurisdictions, such as guarantees provided by MDBs was also mentioned.

While the safety and soundness of the financial system remain a paramount objective, the challenge policymakers face is to assess the possible intertemporal trade-offs between regulatory objectives and broader societal climate and sustainability goals. These tradeoffs may vary across financial institutions and jurisdictions depending on the supervisory and regulatory landscape as well as authorities' mandated objectives. Depending on specific mandates and country circumstances, policymakers can help promote blended finance, for example by aligning as much as possible public processes and objectives with the needs of investors, engaging with donors and DFIs to understand and facilitate access to existing instruments (such as guarantees and concessional financing).

Addressing potential practical and regulatory barriers in the blended finance ecosystem will require greater collaboration and continued discussions between the regulatory community, MDBs, bilateral DFIs, private sector investors and other stakeholders in the blended finance ecosystem. Toward this end, the NGFS can play an important role in raising awareness about blended finance, help provide clarity regarding regulatory issues related to blended finance solutions and promote good practices and principles given its broad geographical reach, the background of its membership, and its work on supervisory issues related to climate financial risks.

6.5 Financial and information intermediation

The role of financial and information intermediaries such as CRAs, ESG data and products providers and other intermediaries within the broader enabling environment for blended finance is important. Continuing efforts need to be made at aligning the practices and products offered by these intermediaries with blended finance realities in EMDEs as well scaling up the level of blended finance intermediation for EMDEs.

XII. Realign CRAs and ESGs relevant products with blended finance realities in EMDES

CRAs and ESG providers are playing an increasingly important role in providing investors with information that is critical in their allocation and investment decisions. It is therefore crucial that actual or perceived conflicts of interest arising from the evolving product suite offered to meet growing investor demand is dealt with adequately to foster market integrity and transparency. As the financial industry is in the process of a transformation towards better realignment with broader sustainability objectives, CRAs and ESG providers need to be a part of the solution of the multi-stakeholder efforts to improve investability of EMDEs. They should collaborate with other stakeholders, such as investors, regulators, and ESG experts, to share knowledge and best practices for incorporating sustainability into credit ratings. The recent advances in climate and environmental sciences and revelations of how new sets of climate and other risks are affecting sustainability, demonstrate that ESG risks and our understanding of them are dynamic. CRAs should continually monitor and update their assessments and methodologies. Regularly reviewing ESG data and issuer performance ensures that ratings reflect current sustainability practices. They should also engage with the issuers and investors to better understand their sustainability strategies and risk mitigation efforts. CRAs can use this information to make more informed assessments and identify areas where issuers can improve, as well as ensuring that the most relevant and accurate information is factored into CRAs' assessments. Many investors have raised concerns about difficulties in drawing comparisons between ESG ratings given the differences in methodologies, metrics and weightings. There are increasing calls being made for more standardised ESG information and ratings.

XIII. Scale the use of intermediation platforms for supply and demand side of blended finance transactions

Blended finance intermediaries play an important role by connecting various stakeholders, facilitating collaboration, and mobilizing private sector investment to achieve climate objectives. Such intermediaries are

crucial in mobilizing private sector resources for global development challenges while ensuring that projects generate both financial returns and positive social or environmental impacts. Scaling up blended finance intermediation will be critical in addressing identified barriers to scaling up blended finance in EMDEs. These intermediaries should be fully transparent in their practices and run publicly available data portals to maintain blended finance. They will be instrumental in technical assistance and capacity-building support to project sponsors, especially in developing countries, to help them meet the requirements of private sector investors and improve the viability of their projects. They will serve as knowledge hubs, disseminating information and best practices related to blended finance, including sharing insights on successful transactions, impact measurement, and lessons learnt. Intermediaries will play a role in ensuring that the impact of blended finance projects is accurately measured and reported. This helps demonstrate the effectiveness of these investments in achieving sustainable development outcomes. It will also help with policy advocacy and research to promote an enabling environment. Intermediaries can act as catalysts, helping to kickstart investment flows into new sectors or regions by providing the initial capital or de-risking measures needed to attract private sector investors. Intermediaries can also track the progress and performance of blended finance projects over time, ensuring that they remain on track to achieve their development goals and that any necessary adjustments are made.

7. Demonstrative Projects

In this section, several case studies of blended finance are highlighted that address some of the project-level barriers mentioned in section 5 on financing climate-related initiatives. The recommendations set out in Chapter 6 are also illustrated through these case studies.

This "Gallery of Solutions" is a curation of both public and private projects that can serve as a reference for those seeking to address key financing barriers. Through these projects, we elaborate on the specific aspects of the blended finance solutions which have enabled the crowding in of private capital.

7.1 A Journey Through Barriers

Eight demonstrative projects were selected following a thorough analysis of existing literature and review of over 30 blended finance projects[30].

Table A **Summary Table of Demonstrative Projects**

Illustration of policy recommendation	Climate Investor One	CFE – Hydropower Rehabilitation Program	EVNFinance Green Bond	Green Project Bond in Benban Solar Park	Daystar Power	Monsoon Wind Power Project	SDG Indonesia One and Project Ijen	La Jacinta Project
ii) Promote better governance, greater transparency, and impact measurement			√				√	
iii) Deepen EMDE capital markets			√				√	√
iv) Approach an ecosystem of solutions specific to blended finance	√						√	
vi) Clarify the role of public capital in blended finance transactions and required level of concessionality	√		√		√	√		
vii) Develop a strong pipeline of bankable projects	√						√	
viii) Promote standardization across the blended finance ecosystem							√	
ix) Foster effective risk mitigation and diversification	√		√				√	√
x) Foster the catalytic role of MDB and other DFIs	√	√		√	√	√	√	√
xi) Identify and address potential regulatory barriers							√	
xiii) Scale the use of intermediation platforms for supply and demand side of blended finance transactions	√						√	

30 These projects were submitted by members of the NGFS BFI and the selected demonstrative projects were selected amongst these 30 projects.

7.2 Exploring Demonstrative Projects

Climate Investor One

Project Summary

Climate Investor One (CIO), is a USD 930m blended finance vehicle designed to accelerate the development, construction, and implementation of renewable infrastructure projects in emerging markets, founded by Climate Fund Managers (CFM) in 2017. CFM was established as a joint venture between the Dutch development bank FMO and Africa's largest non-banking financial institution Sanlam in 2016. Recognizing that only a fraction of global renewable energy financing from institutional investors flows to EMDEs, CIO was designed to address market barriers in attracting private sector investments in renewable energy projects in EMDEs.

CIO employs a "whole-of-life" financing approach via three separate sub-funds to finance a project in three progressive phases of project maturity: the Development Fund (DF), Construction Equity Fund (CEF), and the Climate Credit Fund (CCF).

How it addresses barriers

The USD 130 million DF progresses deals through development to the construction phase and is fully capitalized by reimbursable loans from USAID, European Commission, Green Climate Fund, Nordic Development Fund, and Dutch Ministry of Foreign Affairs. The DF helps mobilize private sector investment into the CEF and CCF by mitigating early-stage risks of underlying projects through the provision of concessional development loans. The reimbursable loans cover up to 50% of development costs and are repaid once the project reaches financial close and construction financing is secured. The loans are used for a range of activities, such as Environmental and Social Impact Assessment (ESIA), financial due diligence, technical due diligence, and legal structuring.

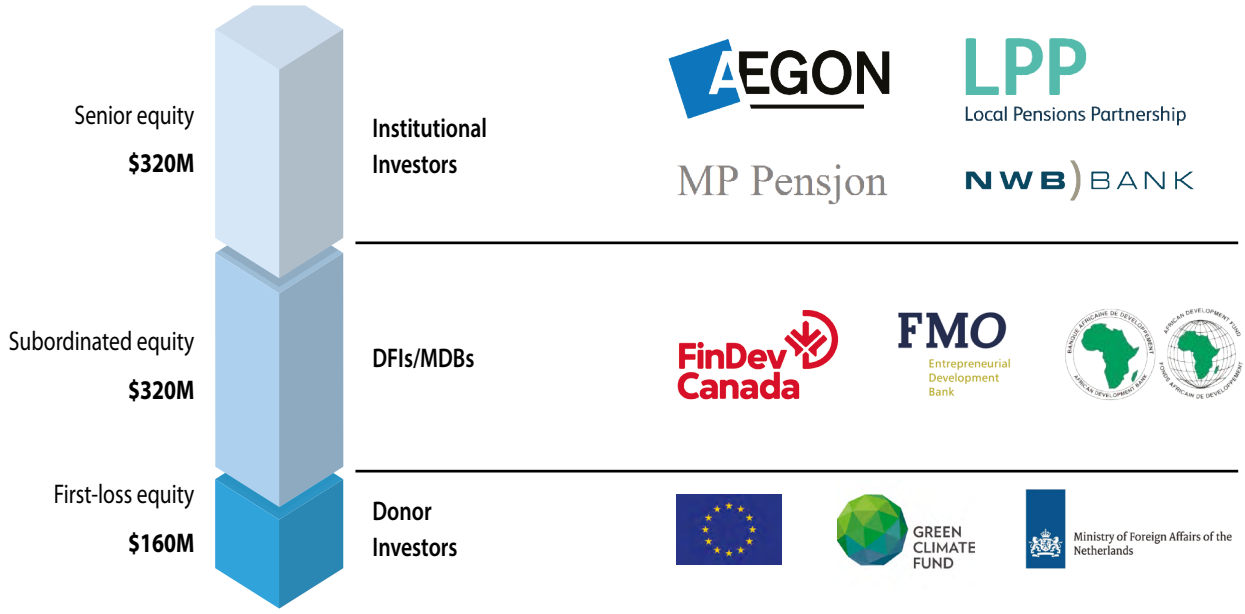
The USD 800 million CEF is capitalised by three tiers:

(i) **Tier 1:** USD 160 million in first-loss equity capital was raised from donors, concessional capital providers, and development agencies including the European Commission, Green Climate Fund and Dutch Ministry of Foreign Affairs. By absorbing initial losses, Tier 1 provides downside coverage to senior ranking investors, enabling CIO to overcome the high perceived risks of construction-phase investment. Tier 1 investors are entitled to a reimbursement of the principal portion of their commitments plus a return based in long term US Consumer Price Index (CPI) once Tier 3 capital is repaid along with the fixed returns and Tier 2's capital is repaid along with their minimum hurdle.

(ii) **Tier 2:** USD 320 million in mezzanine equity is raised from institutional investors seeking commercial returns including the IMAS Foundation, LPP, MP Pensjon, KLP, Sanlam, Triodos Bank, SwedFund, FinDev Canada, FMO and African Development Bank (AfDB). This is possible through capital provided by Tier 1 and Tier 3 as the return expectations for these tranches are limited thus releasing the upside to Tier 2 investors. Through the fund structure, CIO aims to generate 14-16% net USD IRR for Tier 2 investors. Equity disbursed by the CEF finances up to 75% of project construction costs and is used to repay the CIO's funded development loan (along with a fixed premium), thus removing the need to source multiple finance providers during the construction phase.

(iii) **Tier 3:** A USD 320 million senior equity tranche was raised from large-scale institutional investors eyeing stable low risk returns with limited experience in either emerging markets or the renewable energy infrastructure sector. This tranche includes investors such as AEGON and NWB Bank. By securing a full guarantee from Atradius Dutch State Business, the Export Credit Agency (ECA) of the Netherlands, the ECA guarantee elevated Tier 3 to a AAA credit rating. As such, the risk adjusted return is limited (under 5%).

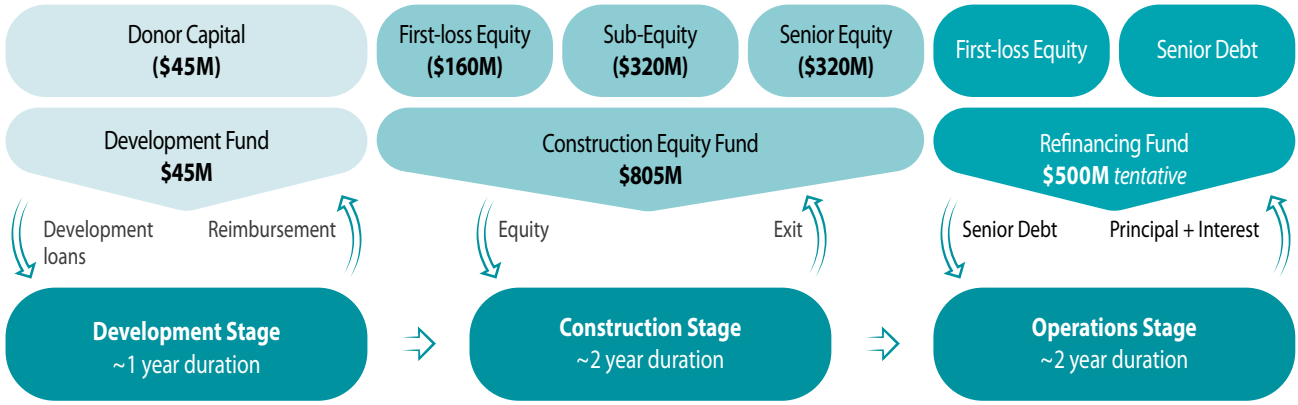
Figure 16 **Three tiers of CEF**



Source: CIO staff.

The CCF will raise debt capital from institutional investors, that will be disbursed through senior loan facilities to individual projects when they commence commercial operations. This will partially replace equity provided by the CEF with long-term debt. The leverage provided to the projects is expected to be c.70% of the equity which will be financed partially by CCF, and the remaining from external debt financiers. The equity released through refinancing will then be recycled into other projects thus creating a bigger impact using the same capital pool. Post refinancing, CEF will look to exit the project by selling its stake and thus recycling the remaining equity from the project into other projects.

Figure 17 **CIO's approach to different projects**



Source: CIO staff.

Table B **Summary of Climate Investor One**

	At a Glance
Mobilisation Level	• Leverage ratio[1]: **1:4** (at construction equity fund level); 1:13 ratio on (sub)-project level (when considering capital recycling at CEF level) • Guarantee/total capital: **0%** • Grants/project cost: **0%**
Recipient Country	Africa/Latin America/Asia
Key sponsors/partners	• Fund manager and arranger: Climate Fund Managers *Development Fund* • Concessional loan providers: USAID, European Commission, Green Climate Fund, Nordic Development Fund, and Dutch Ministry of Foreign Affairs *Construction Equity Fund* • Tier 1 first loss equity providers: European Commission, Green Climate Fund and Dutch Ministry of Foreign Affairs • Tier 2 mezzanine equity providers: IMAS Foundation, LPP, MP Pensjon, KLP, Sanlam, Triodos Bank, SwedFund, FinDev Canada, FMO and African Development Bank • Tier 3 senior equity providers: AEGON and NWB Bank • Tier 3 guarantee provider: Atradius Dutch State Business
Size	USD 930 million

1 When evaluating the use of public capital in blended finance structures, Convergence defines leverage as commercial capital (deployed by private, public (MDBs, DFIs) and philanthropic investors at market rates) per each dollar of concessional capital.

CFE – Hydropower Rehabilitation Program (Fideicomiso de Energias Limpias)

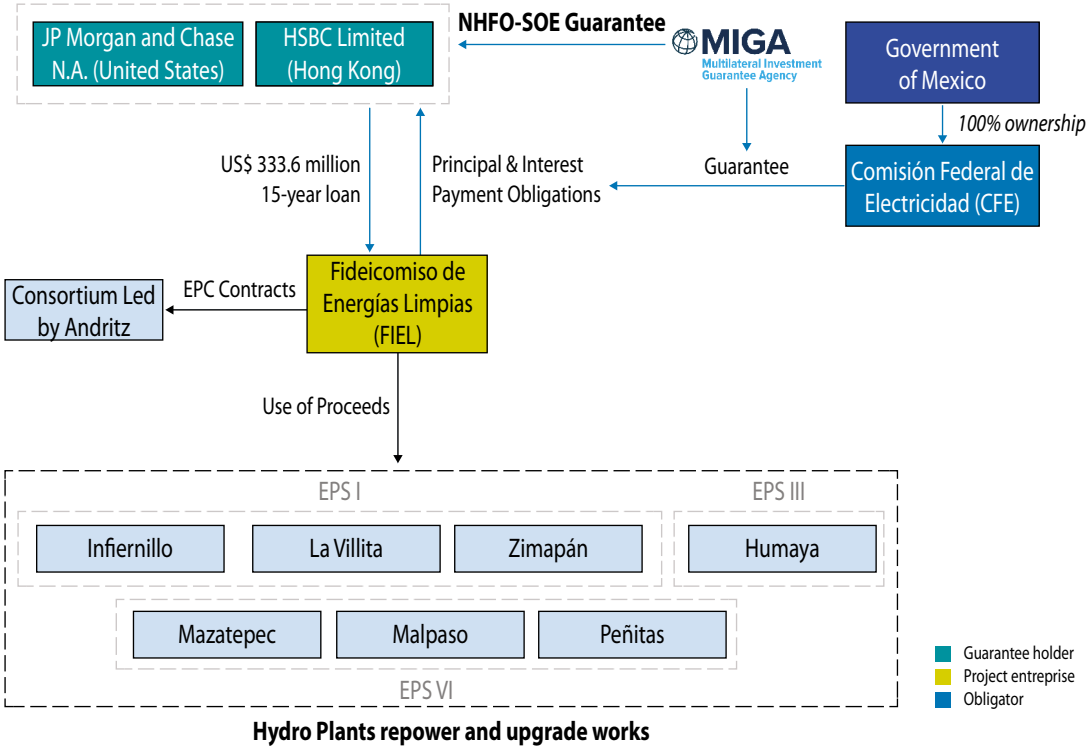
Project Summary

The CFE – Hydropower Rehabilitation Program (Fideicomiso de Energias Limpias) project provides capital investments to upgrade seven existing hydropower plants owned and operated by Comisión Federal de Electridad (CFE), Mexico's state-owned electric utility in Mexico. The upgrades include replacement of turbines, generators, transformers, electromechanical equipment, and ancillary systems which are expected to increase the hydroelectric energy generation capacity of the plants by 113 MW in total, producing approximately 1,426 GWh of additional electricity per year, as well as extend each asset's useful life by several decades while improving reliability and reducing maintenance costs. These upgrades will also contribute to lowering the levelized costs of energy produced by the plants.

CFE plays a central role in the country's energy sector providing transmission, distribution and commercialization services to 99.2% of Mexico's population and generating approximately 74% of the country's electricity as of 1Q 2023. CFE also acts as the sole provider of energy transmission and distribution services in the country.

For this transaction, MIGA issued a USD 536 million guarantee covering principal and interest on a USD 333.6 million loan from JPMorgan Chase Bank, N.A. and The Hong Kong and Shanghai Banking Corporation Limited (HSBC), to the Fideicomiso de Energías Limpias Número 10670 (the Loan). MIGA's guarantee provided cover over the 15-year period of the Loan, including a 5-year grace period, against the risk of Non-Honoring of Financial Obligations by a State-Owned Enterprise (NHFO-SOE) in connection to the guarantee that CFE in Mexico is providing under the Loan.

Figure 18 **Setup of project and MIGA's guarantee**



Source: MIGA staff.

How it addresses barriers

Mexico has received country credit ratings hovering around 'BBB' with a stable outlook. In a high interest-rate environment at this credit ratings, attracting foreign capital at favourable terms is challenging for entities within Mexico. The NHFO-SOE Guarantee by MIGA reduced the real and perceived risk of CFE potentially not honoring the guarantee it provides on principal and interest payments to JP Morgan Chase Bank, N.A. and HSBC on the loan. This allowed CFE to access long-term dollar financing at more favourable terms, enabling the funding of upgrades to the hydropower plants.

Table C **Summary of CFE – Hydropower Rehabilitation Program**

At a Glance	
Mobilisation Level	• Leverage ratio: **NIL** • Guarantee/total capital: **161%** • Grants/project cost: **NIL**
Recipient Country	Mexico
Key sponsors/partners	• MIGA • CFE • JP Morgan Chase Bank, N.A. • HSBC
Size	USD 333.6 million

EVNFinance Green Bond

Project Summary

GuarantCo provided a 10-year partial credit guarantee of VND 1,150 billion (c. USD 50 million) to support a VND 1,725 billion (c. USD 75 million) green bond issuance by EVN Finance Joint Stock Company (EVNFinance). The partial credit guarantee allowed EVNFinance to attract local institutional investors, thereby directly mobilizing private capital towards financing sustainable infrastructure. Vietcombank Securities (VCBS), a leading investment bank and securities firm in Vietnam, acted as the mandate lead arranger on the transaction.

GuarantCo is a market-based provider of contingent credit solutions aimed at enhancing the availability and role of local currency finance for infrastructure projects and developing local capital markets. It was established in 2005 as part of the Private Infrastructure Development Group[31] (PIDG) to help close the infrastructure financing gap and alleviate poverty in lower income countries across Africa and Asia. This is done through innovative local currency credit solutions[32], which seeks to mobilise private sector capital to finance essential sustainable infrastructure projects. GuarantCo's credit rating stands at AA – (negative outlook) by Fitch and A1 (stable outlook) by Moody's as of June 2023.

EVNFinance is a non-bank financial institution in Vietnam with strong expertise and ties to the power sector. EVNFinance has increasingly focused on expanding its network with institutional customers and international funds, and mobilising capital from international sources. Recognising the risks posed by climate change, EVNFinance has increased its focus to renewable energy and green projects.

Proceeds from this EVNFinance Green Bond allowed EVN Finance to issue longer-term loans to finance capital expenditure of green infrastructure aligned with its Green Bond Framework, including SME loans towards renewable sectors such as the fast-growing rooftop and ground-mounted solar sub-sectors in Vietnam. This landmark transaction is Vietnam's first partially guaranteed long-term corporate bond invested by local institutions and also the country's inaugural onshore, local currency, internationally verified green bond.

How it addresses barriers

Due to GuarantCo's partial credit guarantee of 67%, EVNFinance's Green Bond attracted local and international institutional investors such as Manulife and AIA who had previously only participated in fully guaranteed bonds in the market. Two other features also enhanced its attractiveness to investors: (1) the long-dated nature of the instrument which helps long-term investors to address tenor mismatches in asset-liability; and (2) its sustainability credentials. Such instruments unlock a new green and sustainable asset class to draw in institutional investors, such as insurance funds, which look for stable and predictable cashflows over long period of time.

The move from full to partial guarantee was a significant step in Vietnam's capital market development, where the market was only familiar with full guarantees up till then. The partial guarantee created a paradigm shift as investors needed to assess the credit performance of underlying assets more closely beyond being reliant on full third-party credit support. To facilitate investors' appetite for direct exposure to infrastructure-related financing, joint due diligence with GuarantCo was conducted to allow exchange and sharing of views to address material credit concerns. GuarantCo also shared best practices on transaction structuring during the transaction development which provided further comfort to bond investors. Over the longer term, the enhanced capacity to carry out direct evaluation of credit risks will help bridge the gaps between demand and supply of capital pools in Vietnam.

In emerging markets where there are significant pools of capital available onshore but not effectively deployed to projects, such intermediation through blended finance can help match supply and demand of capital.

31 PIDG is an innovative infrastructure development and finance organization funded by the IFC and six governments (United Kingdom, Netherlands, Switzerland, Australian, Sweden, Germany). PDIG operates along the project life cycle and across the capital structure, to help infrastructure projects overcome financial, technical and environmental challenges.

32 GuarantCo's local credit solutions include partial credit guarantees, liquidity extension guarantees, EPC contractor guarantees, portfolio guarantees and framework guarantees. Guarantee size available from GuarantCo for a single transaction ranges between the equivalent to USD5 million – USD50 million in local currency. The maximum tenor is 20 years.

The Global Green Growth Institute (GGGI) provided EVNFinance with technical assistance in developing the green bond framework and assisted in the third-party verification of EVNFinance's Green Bond Framework. This support was made possible through a technical assistance grant under the GGGI's Vietnam Green Bond Readiness Programme, supported by the Ministry of Finance, the Government of Vietnam, and the Government of Luxembourg.

Table D **Summary of EVNFinance Green Bond**

	At a Glance
Mobilisation Level	• Leverage ratio: **Nil** • Guarantee/Total capital: **67%** • Grants/project cost: **Nil**
Recipient Country	Vietnam
Key sponsors/partners	• Partial Guarantee provider: GuarantCo • Local institutional investors: AIA, Manulife • Technical assistance provider: Global Green Growth Institute • Bond Issuer: EVNFinance
Size	VND 1,725 billion (USD 75 million)

Green Project Bond in Benban Solar Park

Project Summary

In May 2022, Norwegian renewable energy company Scatec ASA and its partners refinanced the non-recourse project debt for six solar power plants located in Benban Solar Park. The plants have been operational since 2019 and had a total capacity of 378 MW. Benban Solar Park in the Arab Republic of Egypt is one of the world's largest solar complexes, consisting of 32 solar plants.

The refinancing was achieved through the issuance of a 19-year USD334.5 million non-recourse Green Project Bond, supported by risk mitigation instruments from the EBRD and MIGA (Tranche A below only). The EBRD invested USD100 million and provided a USD32.62 million credit enhancement facility (CEF), while MIGA provided USD98.3 million in political risk insurance (PRI) guarantee.

The non-recourse Green Project Bond had two tranches:

(i) Tranche A, a fixed rate note to institutional investors; and

(ii) Tranche B, a floating note to Development Finance Institution lenders including EBRD, US International Development Finance Corporation (DFC), FMO Entrepreneurial Development Bank (FMO) and German Development Finance Institution (DEG).

This was the first private green project bond issuance (certified by the Climate Bond Initiative) in Egypt and the southern and eastern Mediterranean region. The bond issuance enabled the reduction of the project's financial costs, improving the overall financial viability, and generating cost savings that was shared with the Government of Egypt. EBRD's CEF provided a stand-by liquidity facility alongside the MIGA PRI for the benefit of participating institutional investors (Tranche A of the Bond). The EBRD CEF is sized to service the Tranche A debt for a period of 3 years and can be utilised by the issuer upon occurrence of some of the MIGA PRI Covered Risks such as: (i) breach of contract by the Egyptian Electricity Transmission Company (EETC), and (ii) currency transfer restriction and inconvertibility. The MIGA PRI is provided for a period of 19 years against the risks of breach of contract, expropriation, transfer restriction and inconvertibility, and war and civil disturbance.

EBRD also provided up to EUR 175,000 in technical assistance grants to increase access to skills and economic opportunities for people in the less developed rural areas near Benban Solar Park. This included supporting the local government in developing an inclusive and gender-responsive regional economic development strategy and planning process and formulating a strategy for improving access to skills, employment and sustainable livelihood opportunities for local youth. Technical assistance was also provided for the introduction of a certified training programme for agribusiness entrepreneurs.

How it addresses barriers

A blended finance structure was applied to address the lack of appetite from global institutional investors to invest in financing the development and operation of renewable energy projects in EMDEs.

The combination of risk mitigation instruments from EBRD and MIGA led to sufficient credit enhancement and ratings uplift essential for attracting private capital investment. This resulted in the bond being assigned an investment grade rating of BBB+, six notches higher than Egypt's sovereign debt rating.

EBRD and MIGA's credit enhancement mechanism mitigated the risk of non-payment of debt service by the co-borrowers – thus enhancing the bond's credit and attracting major institutional investors who were mobilising investment contributions for the first time in Egypt.

Innovation and increased capacity have significantly boosted the role and relevance of political risk guarantees in reducing investment risks in emerging markets. They are a cost-effective tool that facilitates private capital flows, unlocking substantial additional investments and accelerating progress toward the SDGs.

Table E **Summary of Green Project Bond in Benban Solar Park**

	At a Glance
Mobilisation Level	• Leverage ratio: **Nil**[1] • Guarantee/total capital: **39%** • Grants/project cost: **0.06%**
Recipient Country	Egypt
Key sponsors/partners	• Multilateral Investment Guarantee Agency (MIGA) • European Bank for Reconstruction and Development (EBRD) • US International Development Finance Corporation (IDFC) • FMO Entrepreneurial Development Bank • German Development Finance Institution (DEG)
Size	USD 334.5 million

1 There is no concessional capital deployed in the Green Project Bond in Benban Solar Park, instead credit enhancement and political risk insurance guarantees were provided by EBRD and MIGA.

Daystar Power, Nigeria

Project Summary

The Daystar Power project is IFC's first investment in Africa's commercial and industrial solar power sector, which has helped generate clean, renewable energy to meet the demands of clients in Nigeria's financial services, manufacturing, agricultural, and natural resources sectors. IFC provided a long-term USD and local currency-denominated financing package at terms not readily available in the local market for the nascent solar PV commercial and industrial market. The project has helped to establish a track record for solar as an alternative to carbon-intensive energy sources in Nigeria, providing market signals that could help unlock bottlenecks faced by solar PV distributed generation, including perceptions on reliability and cost of the solution.

The project will help increase the viability of solar power as a reliable, alternative energy source in Nigeria, especially among commercial and industrial users who typically rely on costly self-generation (e.g. diesel units and smaller gasoline-powered generators). By expanding alternative reliable power solutions, the project also supports growth and job creation in the Nigerian economy. From project inception to September 2022, Daystar's installed capacity in Nigeria grew from 8MW to 31MW. This switch from carbon-intensive fuels used in distributed power generation to solar PV has resulted in an estimated savings of 32,700 tons of CO_2 per annum).

Blended finance structure

- USD10 million subordinated loan from the Canada-IFC Renewable Energy for Africa Program
- IFC subordinated loan of up to USD10 million equivalent in NGN (Nigerian Naira) hedged with IDA Private Sector Window (PSW) Local Currency Facility (LCF) concessional swap to meet the maximum rate viable to the client in Naira.
- $20 million sponsor equity (Daybreak, Daystar's Group subsidiary in Nigeria)

How it addresses barriers

By enabling the provision of USD and local currency subordinated loans with blended finance, IFC will help to meet the company's current funding needs, de-risk future senior debt and facilitate access to competitive longer-term senior debt.

Combined concessional support from the IDA PSW LCF and the government of Canada was critical in helping the transaction proceed. The subsidy was estimated to be around 11% percent of the project cost of USD 40 million.

Aligning with the principle of minimum concessionality and the careful use of scarce public funds, this subsidy was the minimum needed to provide long-term local currency and dollar-denominated subordinated debt at terms which were conducive for Daybreak to scale its business.

Table F **Summary of Daystar Power, Nigeria**

	At a Glance
Mobilisation Level	• Leverage ratio: **1:1.5** • Guarantee/total capital: **Nil** • Grants element (subsidy)/project cost: **11%**
Recipient Country	Nigeria
Key sponsors/partners	• IFC • World Bank • Government of Canada
Size	USD 40 million

Monsoon Wind Power Project (Lao PDR)

Project Summary

The Monsoon Wind Power Project is a 600-megawatt wind power plant in Sekong and Attapeu provinces in the southern region of the Lao People's Democratic Republic (Lao PDR) built to export and sell power to neighbouring Vietnam. The Asian Development Bank (ADB) and Monsoon Wind Power Company Limited (Monsoon) signed a USD 692.55 million non-recourse project financing package to build the plant. Comprising 133 wind turbines, the project will be the largest wind power plant in Southeast Asia and the first in the Lao PDR.

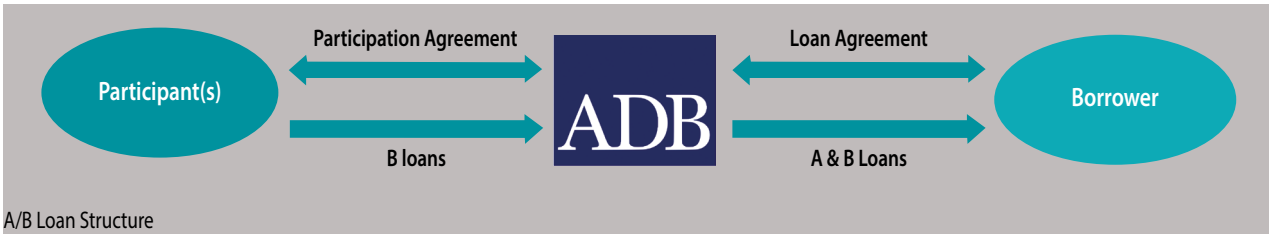
This was the largest syndicated renewable project financing transaction among ASEAN countries to date, with ADB as the sole mandated lead arranger and bookrunner. The package comprises:

a) USD 100 million A loan from ADB's ordinary capital resources;
b) USD 150 million syndicated B loan from Siam Commercial Bank (USD 100 million) and Sumitomo Mitsui Banking Corporation (USD 50 million);
c) USD 50 million in concessional financing;
d) USD 382.55 million syndicated parallel loans from development and commercial banks; and
e) USD 10 million grant from ADB's Asian Development Fund – Private Sector Window (ADB-PSW).

The main financial products used were A/B loans, grants, concessional capital, and parallel loans:

- An A/B loan structure was used to provide flexibility for ADB to bring in commercial lenders to partner with ADB in its lending operations and broader development mission. ADB funded USD 100million of the loan, while commercial lenders funded USD 150 million. Commercial lenders entered the transaction as participants via a participation agreement, and as a result benefited from ADB's Charter-based privileges and immunities as well as ADB's preferred creditor status, which helped mitigate transfer and convertibility risk. Participants also benefited from ADB's relationship with member governments, structuring and project appraisal expertise, supervision and monitoring of project implementation, and potential introduction to new clients and geographies.
  The A/B loan also allows ADB to introduce borrowers to new financing sources that otherwise would not transact bilaterally, thus mobilising more funds for development projects. Through this diverse and growing financing network, ADB can assist borrowers by assembling syndicates to help finance their transactions.

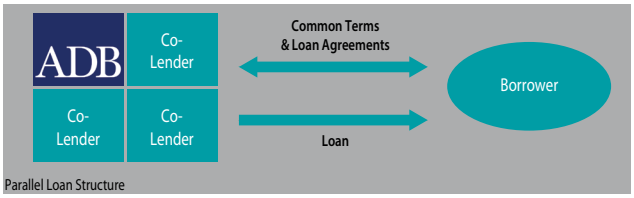
Figure 19 **ADB's A/B Loan Structure**



Source: ADB staff.

- Concessional capital further lowered risks for commercial lenders. The concessional financing administered by ADB comprised USD 20 million from the Leading Asia's Private Infrastructure Fund (LEAP) and USD 30 million from the Canadian Climate Fund for the Private Sector in Asia (CFPS, CFPS II).
- Parallel loans utilized in this transaction included USD 120 million from the Japan International Cooperation Agency, USD 100 million from Kasikorn Bank, USD 72.55 million from the Asian Infrastructure Investment Bank (AIIB), USD 60 million from the Export-Import Bank of Thailand, and USD 30 million from the Hong Kong Mortgage Corporation Limited.
- In this parallel loans structure, ADB acted as an arranger and structured financing solutions for its clients in coordination with other lenders, with each lender having a direct claim on the borrower. In most cases, all co-lenders signed a common terms agreement (CTA) with the borrower and each co-lender also entered into a separate facility agreement with the borrower to address any terms specific to the lender. While co-lenders do not benefit from ADB's Charter-based privileges, immunities and preferred creditor status, they still gained from the other benefits A/B loan participants enjoy, by virtue of the fact that ADB is the anchor lender. Borrowers would benefit from being introduced to lenders that cannot enter into a B loan structure.

Figure 20 **ADB's Parallel Loan Structure**



Source: ADB staff.

- Grants helped to mitigate key project risks. As a part of the overall concessional package, the USD 10 million grant from ADB-PSW helped mitigate key project risks, including potential curtailment risk. ADB-PSW is a facility approved by ADF donors in 2020 that supports private sector development in frontier markets by offering grant resources to fund financial products that address and reduce common financing constraints that hinder many private sector transactions.

How it addresses barriers

As part of ADB's engagement with lenders and advisors during their due diligence of the power purchase agreement for the Monsoon Wind Power Project, lenders and advisors identified curtailment risk as a key bankability issue. Due to the large size of the project, the Sponsors were also clear from the outset that they would not consider a financing package that required sponsor support for curtailment or other key bankability risks.

The use of concessional blended finance was critical in overcoming the project's bankability hurdles to crowd in commercial capital. The USD 30 million in concessional loans from LEAP (senior) and CFPS (subordinated) helped to reduce the cost of debt service and increase the senior debt service coverage ratio, thereby giving the project's cashflows greater resilience to moderate curtailment, especially during the tenor of the B lenders.

The CFPS II loan, which was subordinated, and the ABD-PSW grant were used to fund an additional curtailment debt service reserve account, giving the project an additional liquidity reserve to withstand more extreme curtailment during the tenor of the senior lenders. The disbursement of the grant is designed to be contingent on the project experiencing extreme curtailment events.

The large project size meant that the blended finance solution was able to provide a meaningful contribution to reduce key project risks and crowd in significant amounts of market rate financing. Grant funding and concessional capital only constituted 1% and 5% of total project cost[33], but was able to sufficiently mitigate curtailment risks for lenders because it was focused on providing cash deficiency support in case of a situation where the project has insufficient cash for debt service due to extreme curtailment.

33 This analysis followed the standard approach of calculating concessionality embedded in the donor instrument itself by discounting the cashflows to the donor at a reference rate.

Table G **Summary of Monsoon Wind Power Project (Lao PDR)**

At a Glance	
Mobilisation Level	• Leverage ratio: **1:12.65** • Guarantee/Total capital: **Nil** • Grants/Project cost: **1%**
Recipient Country	Lao PDR
Key sponsors/partners	• B loan lenders: Siam Commercial Bank, Sumitomo Mitsui Banking Corporation • Concessional lenders: Leading Asia's Private Infrastructure Fund (LEAP), Canadian Climate Fund for the Private Sector in Asia (CFPS, CFPS II) • Parallel loan lenders: Japan International Cooperation Agency, Kasikorn Bank, Asian Infrastructure Investment Bank, Export-Import Bank of Thailand, Hong Kong Mortgage Corporation Limited • Donors: ADB's Asian Development Fund – Private Sector Window (ADB-PSW)
Size	USD 950 million[1]

1 Total project cost for the Monsoon Wind Power Project was USD 950 million, while total capital raised was USD 692.55 million.

SDG Indonesia One and Project Ijen

Project Ijen is a geothermal energy exploration project developed by PT Medco Cahaya Geothermal ("MCG"), a subsidiary of PT Medco Power Indonesia[34]. MCG will develop and operate the geothermal power plant, the first in East Java province, and expects to generate 34 MW in the first phase of development in early 2025.

The Ijen Geothermal Power Plant (total capacity of 31.4 MW) received financing for its development through the SDG Indonesia One Platform, which is an integrated funding collaboration platform aimed at supporting SDG-aligned infrastructure development in Indonesia. The platform combines public and private funding from various sources (incl. philanthropic, donor agencies, bilateral and multilateral financial institutions, banking, insurance etc.) to increase infrastructure financing in Indonesia. The SDG Indonesia One Platform is managed by PT Sarana Multi Infrastruktur (Persero) ("PT SMI")[35], a state-owned enterprise under the Indonesia Ministry of Finance[36], which supports the acceleration of infrastructure development in Indonesia through financing and public-private partnership.

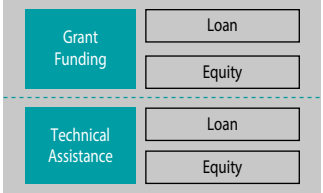
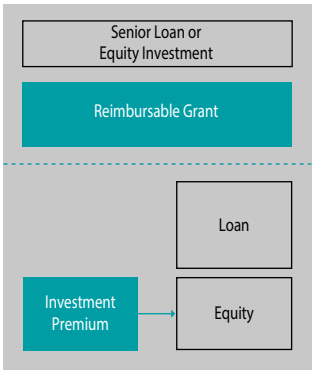
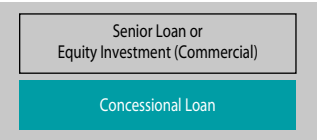
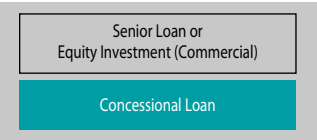
The platform adopts a life-cycle approach to ensure that technical assistance and funding for the infrastructure projects are available from the project preparation stage until it is implemented in the field. It comprises four facilities across the development stage, de-risking stage, financing stage and equity funding/investment stage.

34 PT Medco Power Indonesia is involved in developing and operating power generation facilities and provides operation and maintenance (O&M) services.

35 PT SMI was established in 2009 as a state-owned enterprise under the coordination of the Ministry of Finance in the form of a non-bank financial institution, with a role and mandate to accelerate infrastructure development in Indonesia.

36 SDG Indonesia One is established as a special mission vehicle for infrastructure developments with the Indonesia Ministry of Finance.

Table H **Different stages of project**

Stages	Description	Project Ijen
Development stage Figure 21 **Development stage** 	Development facilities such as technical assistance/grants to increase quality of feasibility study, support project preparation, and accelerate pipeline at national/regional levels	• Project development costs for technical assistance borne by United States Agency for International Development Sustainable Energy for Indonesia's Advancing Resilience (USAID SINAR) and Global Green Growth Institute (GGGI)
De-risking stage Figure 22 **De-risking stage** 	De-risking facilities such as guarantees to increase project bankability	• Fidusia Guarantee for the infrastructure (e.g. buildings, wells, machineries, tools) up to USD 84 million provided by MCG • Loans Guarantee (Fiducia) up to USD 84 million provided by MCG • Fidusia Payment for insurance claims up to USD 84 million provided by MCG
Financing stage Figure 23 **Financing stage** 	Financing facilities/products to encourage infrastructure development and bring in commercial banks and private investors	• US International Development Finance Corporation to finance USD 72.8 million in loans • PT SMI financed USD 70 million in loans from PT SMI's own capital at market rate (with USD 30 million concessional capital from Agence Francaise de Developpement (AFD) channeled through PT SMI) • PT Medco Power Indonesia invested USD 34.7 million in equity financing • PT Ormat (geothermal experts) invested USD 33.3 million in equity financing
Equity funding/investment stage Figure 24 **Equity funding/ investment stage** 	Equity fund for private investors to participate in infrastructure projects, to deepen commercial fund flows for new projects and help recycle assets for operating projects	

How it addresses barriers

Project Ijen overcame project preparation challenges through the SDG Indonesia One Platform by two avenues:

(1) Project preparation assessment to determine project feasibility and needs. PT SMI took on the role as relationship manager for each debtor/project owner to identify debtors' needs, and conducted the project preparation assessment. As part of a project preparation facility, PT SMI coordinated the provision of technical assistance[37] in accordance with requirements stipulated in grant agreements between PT SMI, applicants and donor investors.

(2) Matching the needs with potential partners and stakeholders on the Platform. After the project needs were identified and assessed, PT SMI identified partners on the SDG Indonesia One Platform which could address those specific needs. Consolidating the fragmented landscape of stakeholders with the capacity or expertise to address project specific needs during the project preparation stage onto a single platform facilitates successful matching of project development needs to technical assistance available. Projects on the platform will be subject to the same documentation, processes and assessment criteria.

PT SMI was able to match Project Ijen's specific needs for legal and technical expertise with USAID SINAR and GGGI:

(i) USAID SINAR conducted due diligence and provided legal advisory for project-related transactions, covering compliance, environmental and financing issues. SINAR also provided recommendations to address the risks identified. This reduced transaction costs related to legal requirements which would have otherwise been borne by clients.

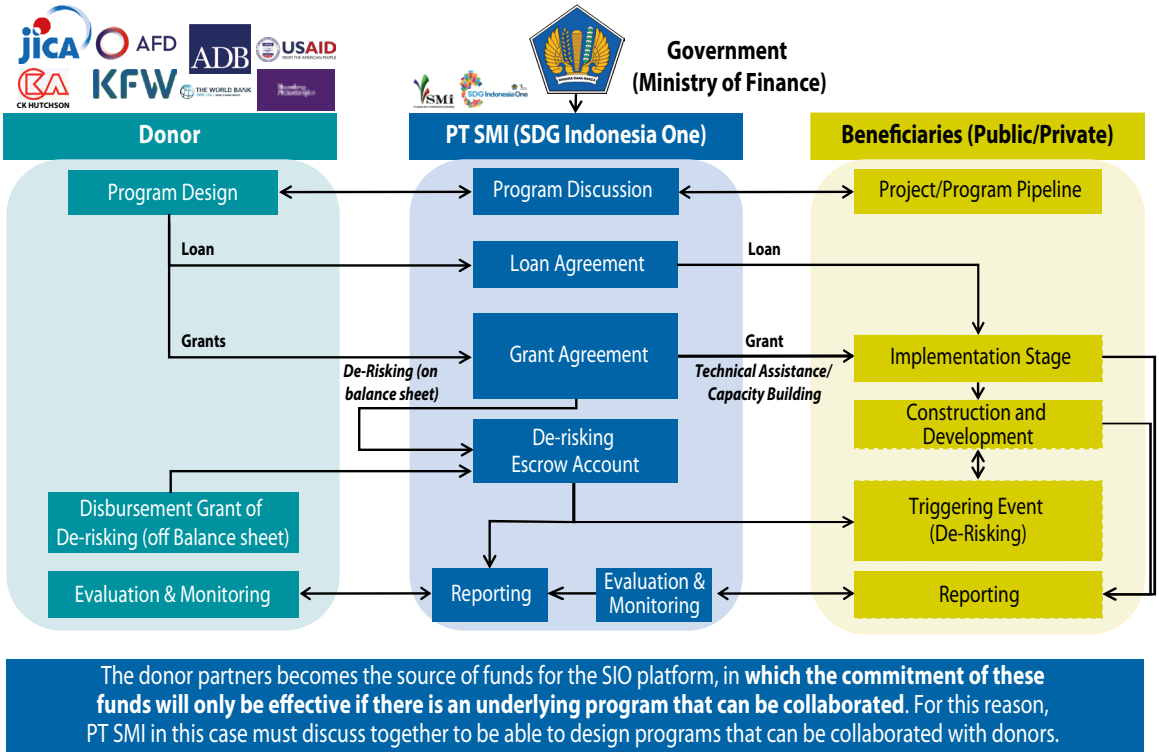
(ii) GGGI supported the preparation of geothermal resource analysis and drilling plan reviews and offered pre-signing and disbursement support. These documents identified project drilling risks and provided guidance to PT SMI on specific activities in Project Ijen which can be financed. This collaboration with GGGI to provide a technical consultant helped reduce the technical costs of the project.

At the platform level, a set of Governance and Accountability Principles applies to all stakeholders of the SDG Indonesia One Platform to ensure transparency, accountability and effective project appraisal. Having a structured governance process is key to attracting investors or donors like philanthropies to partner PT SMI on the SDG Indonesia One platform. PT SMI adopted an SDG-oriented project financing approach where projects are assessed against a set of Environmental and Social Safeguards (ESS) criteria to validate whether projects support SDG 2030 Goals. After the ESS analysis, a Corrective Action Plan (CAP) is issued to debtors who are required to implement recommendations in the CAP, which will be monitored by PT SMI.

Further, donors' own reporting and monitoring processes will also increase project accountability. For example, PT SMI engages AFD periodically (every 6 months) to discuss loan disbursement plans to potential pipeline projects and plans to utilise available grant funding.

37 Scope of technical assistance include feasibility studies, additional technical studies, environmental and social impact assessments, environmental and social management plans, monitoring and construction supervision, and project appraisals.

Figure 25 **Setup of platform**



Source: SDG Indonesia One Platform staff.

Figure 26 **Different ESS criteria**

Source: SDG Indonesia One Platform staff.

Table I **Summary of SDG Indonesia One and Project Ijen**

At a Glance	
Mobilisation Level	• Leverage ratio: **1:5.8** • Guarantee/Total capital: **82%** • Grants/Project cost: **TA provided in-kind**
Recipient Country	Indonesia
Key sponsors/partners	• Equity Investor: PT Medco Power Indonesia, PT Ormat • Loan provider: US International Development Finance Corporation, PT SMI, and Agence Francaise de Developpement through PT SMI • Guarantee provider: PT Medco Cahaya Geothermal • Technical Assistance provider: USAID SINAR & GGGI
Size	USD 210.8 million

Otoritas Jasa Keuangan (OJK), the Indonesia Financial Services Authority, has also adjusted its regulations to allow for innovative blended finance to succeed. Under OJK regulation, guarantees provided by government development agencies can be accorded recognition under the Basel III High Quality Liquid Assets (HQLA) framework when certain requirements are met. For example, such guarantees offered under the de-risking stage of the SDG Indonesia One Platform can be recorded under HQLA Level 2A if issued by public entities not affiliated with the financing entity.

La Jacinta Project[38]

Project Summary

The La Jacinta project is a solar photovoltaic (PV) power plant project constructed, operated, and maintained by renewable energy developer Fotovatio Renewable Ventures (FRV) in northwestern Uruguay in 2014. The project is part of the Government of Uruguay's 2013 200MW tender program to increase participation from the private sector in developing solar PV power plants to reduce Uruguay's reliance on traditional hydroelectric power and reduce high-emission fossil fuel imports.

IDB Invest provided a 20-year USD 40.85 million A loan and structured a USD 25 million concessional loan on behalf of the Canadian Climate Fund for the Private Sector in the Americas (C2F)[39]. The La Jacinta solar power plant commenced operations in 2015 and was acquired by Invenergy Renewables LLC in 2018. Invenergy used IDB Invest's A/B bond as take-out financing to refinance the initial construction phase debt. Refinancing allowed crowding-in of private investment from the bond or commercial bank market.

The main financial products used were the A/B loan and the A/B bond:

- Under the A/B loan structure, IDB Invest acted as the lender, providing a portion of the total loan facility amount (A loan) for its own account. The balance (B loan) was funded by participating banks, who were accorded IDB Invest's preferred creditor status as the lender of record (specifically preferred access to foreign exchange). Principal and interest were paid to IDB Invest who then distributed these flows on a pro rata basis.

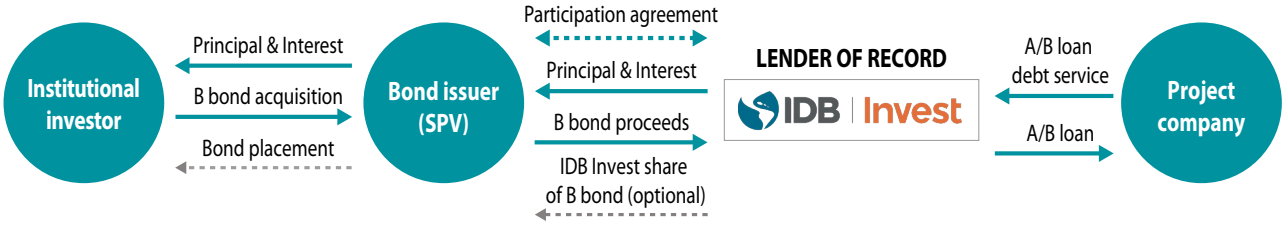
Figure 27 **IDB's A/B loan architecture**

Source: IDBI staff.

38 This section draws from the case study titled «Developing the Solar Market in Uruguay» (Convergence, 2022d). Similarly, insights from "Beyond Leverage Ratios: A Strategic Approach to Blended Finance" (Matthieu Pegon, 2023) were integrated in this section.

39 C2F is a co-financing fund, capitalized by the Government of Canada and managed by IDB Invest, that invests in climate-friendly private sector projects in the Latin America and the Caribbean (LAC).

Figure 28 **IDB's A/B loan structure**



Source: : IDBI staff.

- For the A/B bond, IDB Invest entered into an A/B loan agreement with the project company for the repayment of existing credit facilities. IDB Invest provided a share of the refinancing amount for its own account (A loan). The B loan was funded via a special purpose vehicle (SPV, bond issuer), which financed its participation by issuing a senior note to institutional investors in the capital market (B bond).

How it addresses barriers

The investments by IDB Invest and C2F addressed key market barriers to institutional investor involvement in Uruguay's emerging solar market.

The A/B bond instrument provided several benefits. First, it granted IDB Invest access to a more diverse investor set who could provide long-term financing. For example, institutional investors attracted to the instrument's investment-grade rating (Baa3, Moody's) and the value-added benefits under the IDB investment umbrella such as convertibility risk mitigation and exemption from withholding tax[40]. The A/B bond instrument for refinancing also stretched the debt over a long-time horizon to match the investor's desire for long-term assets (e.g. insurance companies) with the developer's revenue stream and debt service capacity. Second, the A/B bond instrument distinguished post-commissioning risk from construction phase financing, ensuring a secured exit for initial debt investors. Lastly, it freed up IDB Invest's balance sheet for additional development projects. More broadly, raising funds via an A/B bond supported the IDB Invest's mandate to broaden and deepen the local and international capital markets for infrastructure assets in LAC, as well as diversify the sources of capital available to IPPs.

Concessional capital from C2F filled the financial gap required to bring borrower credit and project risk profiles in line with institutional investor expectations. The concessional financing reduced overall cost of debt of the project, increasing the rate of return for the sponsor and senior lenders. It also improved the credit quality of the A/B loan package by reducing counterparty risk. Fundamentally, the C2F funding improved the borrower's revenue outlook despite an aggressive tariff environment to turn the project into a financeable opportunity.

The La Jacinta project demonstrated how to attract and structure private sector and cross-border investment in a novel asset class for the country, and kick-started a string of successful solar PV power plant projects where the use of blended finance brought about a decrease in the degree of concessional financing over time and concessional capital was returned to the donor. By 2018 USD 4.5 billion of private sector investment had flowed into the clean energy sector[41]. This shifted the risk perception of investing in solar PV projects, making not only long-term commercial financing available but also more affordable than the previously subsidized rate provided by C2F. This illustrates that Uruguay had reached a tipping point and shifted towards competitive commercial financing for clean electricity.

40 More information can be found on the IDB Invest website (https://idbinvest.org/en/solutions/resource-mobilization).

41 Between 2005 and 2018, the share of non-renewable sources in Uruguay's energy supply fell from 58% to 37% and energy imports (primarily fossil fuel based) declined to virtually zero.

Table J **Summary of La Jacinta Project**

At a Glance	
Mobilisation Level	• Leverage ratio: **1:3.3** • Guarantee/total capital: **0%** • Grants/project cost: **0%**
Recipient Country	Uruguay
Key sponsors/partners	• Project Site SPV(s): Jacinta Solar Farm S.R.L. • Ownership Structure: Fotowatio Renewable Ventures (construction phase), Capital Riesgo Global (construction phase); Invenergy Renewables LLC (operations phase) • A/B Bond Issuer: Jacinta Solar Farm Finance Ltd. • Placement Agent: DNB Markets Inc. • Donors: C2F
Size	USD 102 million

8. Blended Finance in EMDEs: A Way Forward

Blended finance is a key solution to enhancing investability and attracting private financing to EMDEs to address global sustainability challenges and meet the Paris climate goals. Blended finance can help bridge the interests of public and private capital if appropriate policy, institutional, market and climate frameworks, tailored to EMDE-specific circumstances, are put in place. However, against the backdrop of increasingly challenging conditions, EMDEs continue to face a number of barriers that hamper the effectiveness of blended finance and prevent it from reaching its full potential.

This report identifies a number of policy recommendations grouped around five key areas, to address these barriers and scale up blended finance in EMDEs. These five areas include:

(a) prerequisites to improve EMDE climate investability;
(b) a holistic approach to developing blended finance;
(c) development of project pipelines and scalable structures;
(d) risk mitigation and regulatory considerations;
(e) financial and information intermediation.

Several demonstrative projects with innovative and scalable blended finance mechanisms are included in the report to illustrate the applicability of these policy recommendations across different markets and geographies.

Mobilizing private capital to address the impact of climate change is a global challenge. It can only be addressed through globally coordinated efforts across various stakeholders in order to develop effective solutions that can be scaled up. This requires stakeholders to work together across their institutional mandates and operating environments. Close collaboration between public and private sectors, along with support from international organizations and development banks, is paramount to successfully scale up blended finance in EMDEs. Considerations about social and inclusiveness aspects (a "just transition") are crucial and need to be incorporated to get the buy-in from local communities and make a greener planet available to all.

The availability of public capital so far has fallen far short of what would be needed to provide sufficient de-risking tools for private capital. Moreover, deployment of public capital has been too fragmented and too inflexible and will require a more strategic approach for more effective and efficient deployment. At the same time, it is crucial to manage growing (and at times unrealistic) expectations of what blended finance can deliver in coming years. Some of the barriers, both specific to EMDEs and climate related, will not be removed quickly – it will take persistent efforts and new processes to channel private capital flows towards EMDEs both for climate mitigation and climate adaptation. Furthermore, the use of blended finance should be temporary, in order to promote the principle of commercial sustainability and not distort markets in the long run.

Through this publication, the NGFS seeks to raise awareness of the importance of blended finance to advance climate mitigation and adaptation in EMDEs. Given the challenges to scale and realize the full potential of climate blended finance solutions in EMDEs, a globally coordinated effort involving all key stakeholders in the ecosystem is imperative.

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List of Acronyms

ADB	Asian Development Bank
ADF	Asian Development Fund
AFD	Agence Française de Développement (French Development Agency)
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
AEs	Advanced economies
AML-CFT	Anti-money Laundering and Counter-terrorism Financing
BFET	Blended Finance for the Energy Transition
BFI	Blended Finance Initiative
C2F	Canadian Climate Fund for the Private Sector in the Americas
CAP	Corrective Action Plan
CCF	Climate Credit Fund
CEF	Construction Equity Fund
CFE	Comisión Federal de Electridad (Federal Electricity Commission of Mexico)
CFM	Climate Fund Managers
CFPS	Canadian Climate Fund for the Private Sector in Asia
CIF	Climate Investment Funds
CIO	Climate Investor One
CRAs	Credit Rating Agencies
CTA	Common terms agreement
DAC	Development Assistance Committee
DEG	Deutsche Investitions- und Entwicklungsgesellschaft (German Development Finance Institution)
DF	Development Fund
DFC	US International Development Finance Corporation
DFIs	Development financial institutions
EBRD	European Bank for Reconstruction and Development
ECA	Export Credit Agency
EDFI	Association of European Development Finance Institutions
EETC	Egyptian Electricity Transmission Company
EIB	European Investment Bank
EMDEs	Emerging market and developing economies
ESG	Environmental, social, and governance
ESIA	Environmental and Social Impact Assessment
ESS	Environmental and Social Safeguards
FMO	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. (Dutch entrepreneurial development bank)

FRV	Fotovatio Renewable Ventures
FX	Foreign exchange
G20	Group of 20
GCF	Global Climate Fund
GDP	Gross Domestic Product
GEMs	Global Emerging Markets
GFC	Global Financial Crisis
GFSR	Global Financial Stability Report
GGGI	Global Green Growth Institute
GHG	Greenhouse gases
GIIN	Global Impact Investing Network
HLEG	High-level expert group
HQLA	High Quality Liquid Assets
IBRD	International Bank for Reconstruction and Development
ICD	Islamic Corporation for the Development of the Private Sector
ICMA	International Capital Market Association
IDA	International Development Association
IDB/IADB	Inter-American Development Bank
IEA	International Energy Agency
IFC	International Finance Corporation
IIF	Institute of International Finance
IMF	International Monetary Fund
ISSB	International Sustainability Standards Board
LAC	Latin America and the Caribbean
LCF	Local Currency Facility
LEAP	Leading Asia's Private Infrastructure Fund
LMICs	Low-middle income countries
MCG	PT Medco Cahaya Geothermal
MDB	Multilateral Development Banks
MIGA	Multilateral Investment Guarantee Agency
MoF	Ministry of Finance
NGOs	Non-governmental organization
NHFO-SOE	Non-Honoring of Financial Obligations by a State-Owned Enterprise
O&M	Operation and maintenance
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
OJK	Otoritas Jasa Keuangan (Indonesia Financial Services Authority)
PIDG	Private Infrastructure Development Group

PPF	Project Preparation Facilities
PRI	Political risk insurance
PSW	Private Sector Window
PT SMI	PT Sarana Multi Infrastruktur (Persero) (Special Mission Vehicle under Indonesia Ministry of Finance)
PV	Solar photovoltaic
SDG	Sustainable Development Goals
SPEC	Special Presidential Envoy for Climate
SPV	Special purpose vehicle
UMICs	Upper-middle income countries
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
USAID SINAR	United States Agency for International Development Sustainable Energy for Indonesia's Advancing Resilience
VCMs	Voluntary carbon markets

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