SYSTEMIQ

HOUSEHOLD & CORPORATE CATALYSTS: UNLOCKING INVESTMENT FOR THE TRANSITION IN EMERGING MARKETS AND DEVELOPING ECONOMIES

WHITEPAPER

ABOUT THIS WHITEPAPER

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This whitepaper was developed by Systemiq as input to the work of the Independent High-Level Expert Group on Climate Finance (IHLEG). It was authored by Maxine Gibb, Jennifer Ring, Mattia Romani, Johanna Schlueter, Julia Turner (Systemiq) and Neeha Mujeeb.

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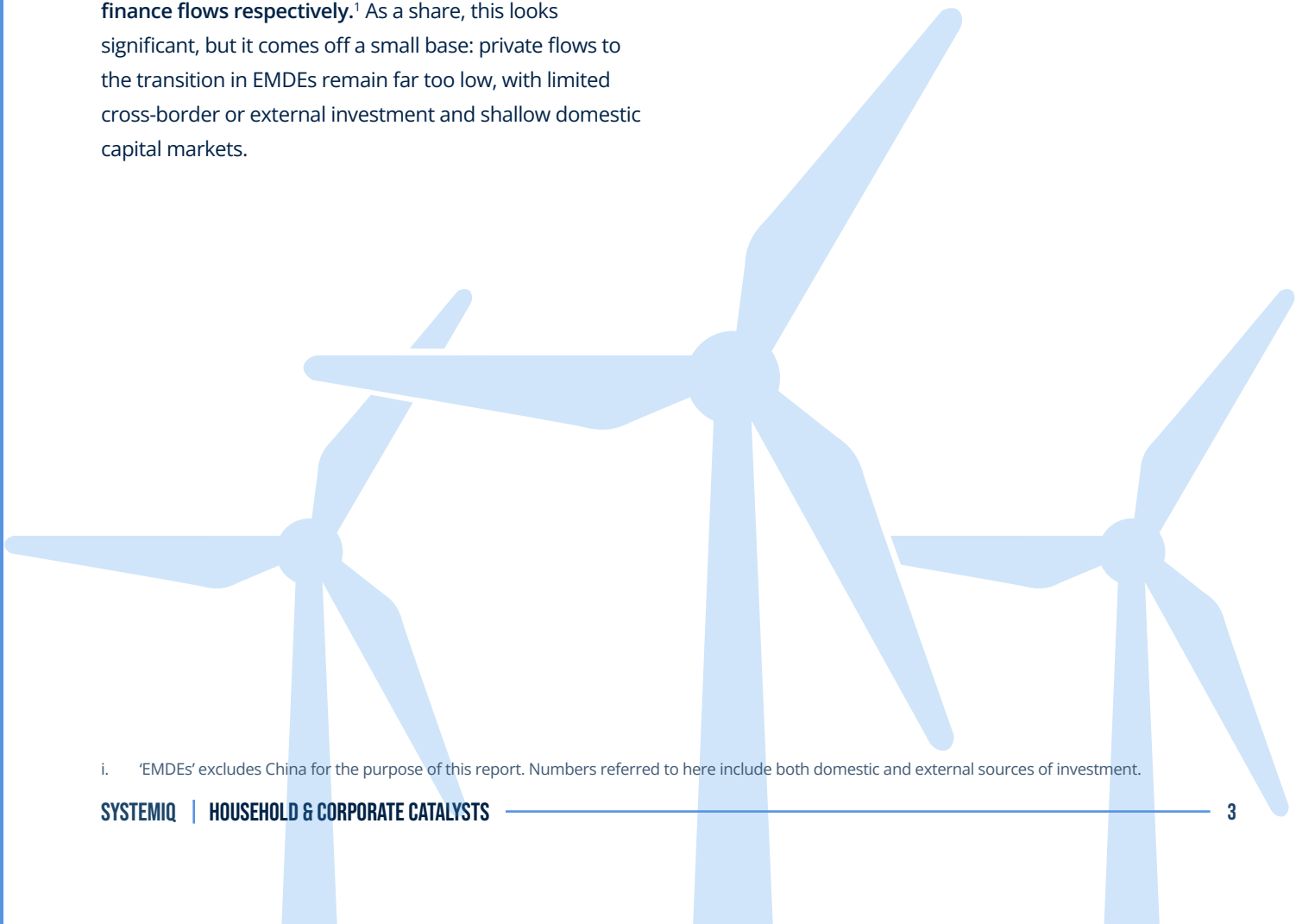
INTRODUCTION

Delivering the climate transition in emerging markets and developing economies (EMDEs) will depend on mobilising real economy actors that are sometimes overlooked in the climate investment and finance agenda: corporates and households.

Corporates select, design, build, and operate the assets that underpin the net zero economy. Households determine which climate solutions scale through their spending. Corporate balance sheets and household savings are directly financing these investments. Yet the role of corporates and households as engines of the transition remains under-appreciated.

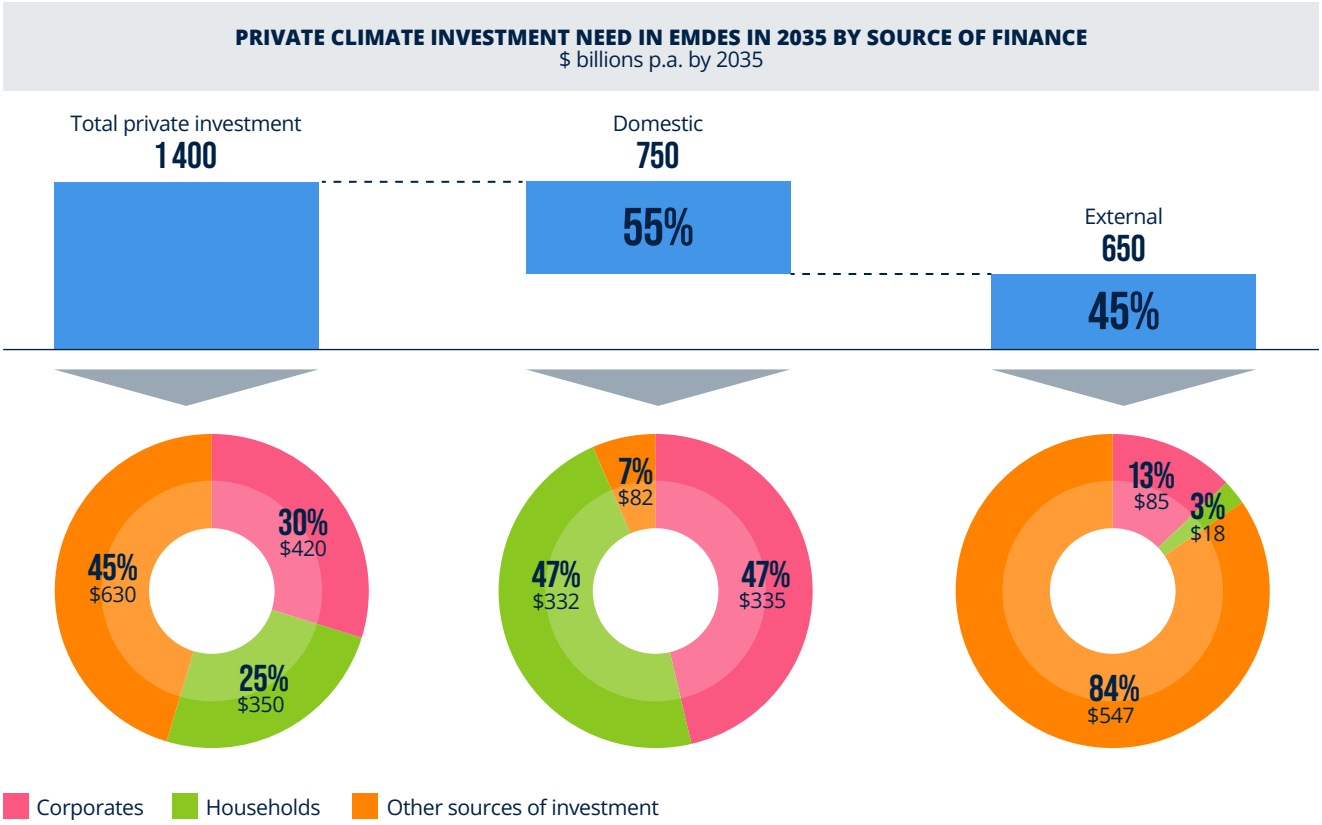
In 2023, private non-financial corporates invested $68 billion in the transition in EMDEs[i], while households invested $44 billion; 35% and 23% of all private climate finance flows respectively.[1] As a share, this looks significant, but it comes off a small base: private flows to the transition in EMDEs remain far too low, with limited cross-border or external investment and shallow domestic capital markets.

Unlocking the balance sheets of corporates and the savings of households is a vital opportunity to close the climate finance gap and anchor resilient, locally-led transitions. In 2035, an estimated $770 billion – more than half of the $1.4 trillion private finance need for EMDEs – could flow from corporates and households to climate investment, with 85 - 90% from domestic sources (see Figure 1). Of the total, up to half could be self-financed, with the remainder provided by intermediated finance through banks and other institutions.[2]



i. 'EMDEs' excludes China for the purpose of this report. Numbers referred to here include both domestic and external sources of investment.

FIGURE 1 CONTRIBUTION OF CORPORATES AND HOUSEHOLDS TO PRIVATE CLIMATE INVESTMENT IN EMDES IN 2035[ii]



This paper outlines how to realise this opportunity through supercharging corporate action – from multinationals to family businesses and state-owned enterprises – and empowering households as investors and savers in the transition.

FIGURE 2 HOW REAL ECONOMY ACTORS CAN SUPERCHARGE THE TRANSITION IN EMERGING MARKETS AND DEVELOPING ECONOMIES

A. THE ROLE OF CORPORATES		B. THE ROLE OF HOUSEHOLDS	
1.	Harness corporates to **close the origination gap**	1.	Empower households as **sources of investment for the transition**
2.	Capitalise on **family business** for **long term, strategic transition capital**	2.	Strengthen households as a **foundation of domestic resource mobilisation**
3.	Steer **state-owned enterprises** to drive **equitable decarbonisation pathways**		

ii. Systemiq analysis - see Appendix. Numbers may not add up due to rounding.

A. THE ROLE OF CORPORATES

Corporates are the engines that power climate action in the real economy. They select, design, build, and operate the infrastructure, supply chains, and technologies that shape the pace and direction of the transition.

Corporates span a broad range of real economy actors – from multinationals and large domestic firms, including state-owned enterprises (SOEs) and family businesses, to micro, small, and medium-sized enterprises (MSMEs) that form the backbone of local economies. Global corporate climate investment is growing: it increased 50% year-on-year in 2023 and 20% the year before.[3] In 2023, corporate investment in EMDEs reached $67 billion, equivalent to 35% of all private climate finance in these regions – yet this this is still modest when compared with $175 billion investment in advanced economies.[4]

The scale of climate investment required in EMDEs far exceeds current flows. To contribute to 1.5°C -aligned pathways, climate finance in EMDEs must rise to $3.2 trillion annually by 2035, up from $375 billion in 2023.[5] Of this, $1.4 trillion must come from private sources. Reaching this level will be impossible without more fully realising the potential of corporates as sources of investment in the transition.

In 2035, an estimated 25 – 35%, or about $420 billion, in investment could flow from corporates to the EMDE transition, through a combination of self-financing and intermediated finance from banks. Of this total, roughly 80% – equivalent to about $335 billion – will be domestic (see Appendix).

Yet corporates in many EMDEs are constrained by weak balance sheets, limited access to affordable finance, inconsistent policy environments, and capacity gaps that limit their ability to invest at scale. Equipping corporates to take a more decisive role in building the low-carbon, resilient economies of the future will require targeted and coordinated action.

In emerging markets, there are three high potential opportunities to super-charge corporates' contribution to closing the private climate finance gap.

1. HARNESS CORPORATES TO CLOSE THE ORIGINATION GAP

Investable project pipelines are the bedrock of the climate transition. Yet mobilising capital for origination and preparation of new projects, or development of new technologies, is a major obstacle. The early phases of project and solution development present greater levels of risk, while revenues are yet to flow. Early-stage equity willing and able to absorb this risk is scarce.

In emerging markets, this challenge is particularly acute. An estimated 70% of projects in EMDEs do not move beyond feasibility stage. Inadequate funding of technical assessment, studies, and data sourcing is partly to blame, alongside uncertain demand, unattractive risk return profiles and weak institutional capacity.[6]

Under-investment in innovation in EMDEs also risks constraining the speed of transition. EMDEs – many of which are on the front lines of climate impacts – are fertile ground for climate innovations, particularly for adaptation and resilience.

Innovative solutions developed in EMDEs but exported around the world include Ushahidi – a Kenyan open source digital platform for crowd-sourcing data to support disaster response, Cropin – an Indian, AI-enabled ag-tech firm, and Gravalock – a permeable paving solution that can help combat urban heat island effects.[7]

But climate technology investment is dominated by North America and Europe, with shares falling elsewhere; in Asia Pacific, share of global climate tech investment volumes fell from 19% to 7% between 2023 and 2024.[8]

THE OPPORTUNITY

Corporates have a pivotal role to play in de-risking early projects or new markets in EMDEs through demand anchoring.

By pre-emptively locking in volume, price and tenor (supported by market making instruments such as contracts-for-difference, where available), corporates can mitigate project risk through predictable cash flows, helping mobilise capital from banks and investors. Long-term offtake agreements can be used by lenders as security, effectively unlocking additional debt capacity and reducing financing costs.

Corporate demand-anchoring strategies have grown rapidly in recent years. Corporations publicly announced a record 46 gigawatts (GW) of solar and wind contracts in 2023, some 12% more than the previous record of 41GW in 2022.[9] In India, which achieved its 2030 target of 500GW of electricity generation capacity from non-fossil fuel sources by 2025, Power Purchase Agreements (PPAs) from domestic and international corporates – including Amazon and Unilever – provide long-term revenue certainty that enabled financing primarily by domestic banks.[10]

The approach is not confined to the energy transition. Bunge, Brazil's largest agricultural exporter, has used long-term contracts as a mechanism for reducing deforestation in its soybean supply chain, partnering with Santander and The Nature Conservancy in 2018 to offer 10-year loans to farmers who commit to deforestation-free soy production in the Cerrado.[11]

In harder-to-abate sectors, long-term offtake agreements are now emerging for green hydrogen, low-carbon steel, sustainable aviation fuel, and other nascent green commodities. Stegra/H2 Green Steel, a leading example of the transition to green steel in Europe, was able to secure multiple offtake contracts, including with Cargill, Lindab and the Bilstein Group, with most of the first-phase of the Boden plant output, in Sweden, now effectively forward-sold and delivery starting in mid-2026.[12]

Corporates can also commit early capital to research and development (R&D), pilots, and climate tech ventures for less mature solutions, shouldering initial risk to prove out projects and attract external investors – both private and development finance institutions (DFIs) – for scale up. For instance, Microsoft's $1 billion Climate Innovation Fund invests in emerging climate technology solutions with early commercial traction. Its portfolio includes Stegra (mentioned above), the world's first commercial-scale near-zero emissions steel plant, and Konexa, the first independent integrated utility platform in Nigeria that is pioneering a model leveraging cost efficient and disruptive technologies to accelerate reliable energy access.[13] Similarly, in 2022, CPFL Energia, one of Brazil's largest energy utility companies, launched a program dedicated to collaboration with startups, researchers and entrepreneurs to build scalable solutions in the electricity sector. Eight solutions are now in advanced proof of concept stages.[14]

KEY ACTIONS

1. **Strengthen market credibility through buyer coalitions:** Industry and finance coalitions can be created to coordinate buyers, standardise contract templates, and provide certification frameworks that build credibility and comparability across corporate offtake commitments, and align with requirements of financiers to use them as securities.
2. **De-risk corporate investment through concessional finance:** DFIs, national development banks, and governments can deploy concessional capital or guarantees to reduce risk associated with offtake or counterpart contracts as well as corporate investment in R&D, pilots, and project origination (see Box A).
3. **Redesign project preparation facilities for stronger corporate participation:** Project preparation facilities (PPFs) should be adapted to enable earlier and more effective corporate engagement. This includes involving corporates at the pipeline planning stage and incorporating their input to help standardise documentation and improve project design. Development partners should also tailor PPFs to private sector needs by streamlining accreditation processes, accelerating approvals and disbursements, and providing targeted technical assistance and advisory support aligned with corporate timelines and decision-making processes.
4. **Mobilise corporate-led climate innovation funds:** Large corporates, including multinationals and SOEs, can establish dedicated climate innovation funds and partnerships with startups and research institutions to accelerate technology demonstration and localisation in EMDEs. Public co-financing or fiscal incentives can enhance these efforts.
5. **Provide stable policy signals and R&D incentives:** Stable climate policies, clear permitting processes, and consistent disclosure and carbon pricing frameworks can strengthen corporate confidence to invest in early-stage projects. Targeted incentives for R&D and robust IP regulation (e.g. tax credits, patent support, innovation grants) can further encourage corporates to develop new climate technologies.

BOX A HOW MULTILATERAL DEVELOPMENT BANKS (MDBS) AND DEVELOPMENT FINANCE INSTITUTIONS (DFIS) CAN SUPPORT CORPORATES TO SCALE INVESTMENT IN ORIGINATION

The R&D, pre-commercial and early-stages of projects are where risk is highest, and where corporates take on real balance sheet risk to test, build and scale new products or lines of business.

Funded by corporates' own balance sheets, many of these projects do not reach the market and losses are born primarily by corporates. In EMDEs, where balance sheets are more constrained (e.g. from high costs of capital and shallower capital markets), this can limit corporate innovation and early-stage risk-taking from corporates.

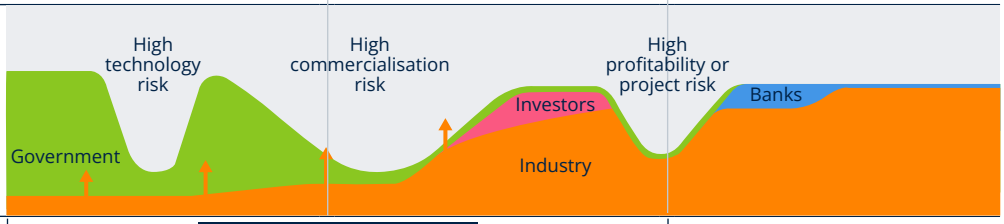
While MDBs and DFIs deploy a range of risk-sharing instruments to invest alongside (or crowd in) corporate capital, these are predominantly structured as debt-based co-financing, which is less suited to addressing risks at the project origination stage. Although MDBs report aggregated volumes of climate finance annually, including breakdowns by instrument, there is limited transparency on how these instruments are deployed across different stages of the project lifecycle. This makes it difficult to assess the extent to which MDB and DFI support is effectively addressing early-stage financing gaps.

MDBs can help close the origination gap by reducing corporates' balance sheet exposure and promoting higher corporate investment in pipeline building stages in EMDEs.

Figure 3 illustrates the typical stages in the firm building and project finance lifecycle. Each stage entails different types of risk, variations in capital availability and means by which corporates typically invest. While differences may exist across sectors, parallels can be drawn across corporates. As can be seen, governments play a large role in the early stage of the investment cycle alongside corporates which have few other sources of capital available. Priorities for MDBs to lower risk for corporates and other investors at this early stage include:

- In R&D pre-commercial stages, MDBs can provide recoverable project preparation funding like grants or loans that are used for development but are repaid only if the project reaches financial close, limiting losses for corporates if a project fails.
- Similarly, providing first-loss guarantees at early-stages, or junior and subordinate equity in pilots and early commercial projects, shares potential losses and helps put less corporate capital at risk. This may enable corporates to invest where they otherwise would not or frees up balance sheet capital to originate more projects.

FIGURE 3 ILLUSTRATIVE PROJECT AND FIRM LIFECYCLE FOR LARGE NON-FINANCIAL CORPORATES[iii]

	RESEARCH & DEVELOPMENT AND PRE-COMMERCIAL SCALING	EARLY STAGE SCALE UP AND COMMERCIAL DEPLOYMENT	MATURE AND COMMERCIAL EXPANSION
CHALLENGES	High probability of not recovering capital and not all projects succeed Limited capital availability	Limited high-risk bearing capital in EMDEs Gap in funding for smaller ticket sizes	Country and project specific risk can increase cost of capital, limiting scalability
HOW CORPORATES TYPICALLY INVEST	Balance sheet equity	Corporate equity; project finance	Corporate debt (loans, bonds, SLLs); project finance
APPLICABLE RISK SHARING INSTRUMENTS	Grants, viability gap funding, technical assistance, project preparation facilities, investment tax credits	First loss capital, early-stage equity, contracts for difference, offtake agreements, guarantees	Guarentees, political risk insurance, MDB co-finance, currency hedging
LEVEL OF INVOLVEMENT			
LEVERS FOR MDB AND DFIS TO HELP SCALE CORPORATE INVESTMENT	Key to the origination gap **Reduce corporate balance sheet exposure and reduce downside risk** for corporates, e.g. through recoverable grants or loans, partial risk guarantees, first-loss capital, catalytic equity, thereby scaling more corporate/industry investment in origination stages		

Notably, micro, small and medium enterprises (MSMEs) may not follow the same stages of this lifecycle and face a different set of barriers. MSME's are typically locked out of various instruments or sources of investment which are available to larger corporates, such as equity markets. Their size may represent smaller ticket sizes and higher transaction costs for investors, limiting their access to capital. They may lack the collateral needed to access debt products, even those that are concessional, and when they can access debt, it is very expensive. Many MSMEs might also lack the track record of revenues and performance by which many grants, project preparation and technical assistance facilities screen recipients. As a result, these types of corporates require different interventions and support to scale investment. Separate analysis is needed on the types of instruments, whether non-collateralised and concessional credit lines, guarantees by DFIs or other grant allocation mechanisms, that are suitable to specific MSMEs and sectors in EMDEs.

iii. Adapted from Center for Public Enterprise (2024) *The project finance valley of death*

2. CAPITALISE ON FAMILY BUSINESSES FOR LONG TERM, STRATEGIC TRANSITION CAPITAL

Family businesses are major players in the global economy. In 2024, the 500 largest family businesses globally employed more than 25 million people and generated $8.8 trillion, a 10% increase in revenues from 2023 that far outstripped global GDP growth of 3.3%.[15]

In emerging markets, family businesses have outsized significance. In Latin America family businesses contribute to approximately 60% of aggregate Gross National Product (GNP)[16], and more than half of private firms with revenues of $1 billion or more in emerging markets are owned by founders or families.[17]

THE OPPORTUNITY

Family-owned or -controlled businesses can be powerful allies in accelerating the transition. Many of the qualities that confer competitive advantage are also crucial ingredients for decisive corporate climate action.

First, family businesses are more capable of taking a generational view on capital allocation, and skill and capability deepening. Of the 500 largest family businesses globally, around 1/3 are more than 100 years old, and 85% more than 50 years old.[18] For corporates with long time horizons that prioritise reputation, legacy and stewardship of the firm for future generations, the case for action on climate and resource preservation can be compelling, even where the immediate business case is not. Furthermore, family businesses are often strongly linked to local economies and communities. These place-based ties can mean family businesses have greater appreciation of resource dependencies, local supply chains and social licence to operate, all of which can positively inform action to reduce and manage climate and nature impacts. Crucially, family-controlled businesses may also have greater agility and autonomy to act on climate. Where public firms can be constrained by shareholders prioritising short-term earnings or fragmented ownership, family businesses typically enjoy more flexibility and freedom to pursue new strategies or innovation, often ahead of peers or regulation. Data to quantitatively assess the contribution of family-owned enterprises versus other types of corporates to climate investment is scarce – and closing this evidence gap is a priority. Nevertheless, examples of family businesses investing in climate underscore their contribution.

For instance, Votorantim Cimentos, a leading Brazilian cement company under family control for over 80 years is pursuing a decarbonisation agenda integrated with its core portfolio strategy – including a goal to reach 30% of revenue from sustainable solutions by 2030. Its efforts include increasing use of alternative fuels in cement production kilns, substitution of clinker (the principal source of cement embodied emissions) with industrial by-products, as well as the development of innovative processes, materials and carbon capture and storage technologies to further reduce the emissions footprint of its products.[19] In India, the Mahindra Group – an over $20 billion conglomerate controlled by the Mahindra family for three generations – spans over 20 sectors, including automotives, farm equipment, and financial services. The Group has been an early mover on climate action, setting science-based targets and a goal to achieve net-zero emissions across Scope 1 and 2 by 2040, 20 years ahead of India's national goal. It is also a signatory to The Climate Group's EP100 initiative, committing to double its energy productivity, and has pledged to source 100% of its operational energy from renewables.[20]

KEY ACTIONS

1. **Design targeted transition finance vehicles for family businesses:** MDBs and DFIs, as investors in EMDEs, have deep experience in doing business with family businesses. They can support dedicated instruments that reward long-term, intergenerational investment horizons, e.g. concessional capital or green bonds tailored to family-owned conglomerates making multi-decade decarbonisation bets.
2. **Embed family enterprises in national and regional transition partnerships backed by risk sharing platforms:** Governments, MDBs/DFIs, and industry alliances can formally integrate family-owned firms into country platforms and regional transition partnerships (e.g. for green steel, clean cement, regenerative agriculture). These platforms should be supported by dedicated catalytic finance mechanisms designed specifically to de-risk family businesses' early, high-capex decarbonisation investments. This combination of convening power and tailored risk-sharing instruments can unlock larger, faster climate commitments from family enterprises while crowding in additional commercial capital.
3. **Strengthen disclosure and transition planning support:** Standard setters and industry associations should provide simplified frameworks and technical assistance for sustainability reporting (aligned with SBTi/TCFD[iv]), enabling family businesses in EMDEs, especially mid-sized ones, to quantify emissions and attract green finance.
4. **Cultivate next-generation leadership and capacity:** Family business networks should scale training and peer-learning programmes focused on climate innovation, governance, and ESG integration, empowering successors who already view sustainability as core to legacy building.
5. **Anchor just transition and resilience initiatives with family businesses:** Cities, regional governments, and NGOs can partner with local family enterprises to pilot place-based climate and nature solutions, building on their community ties and embeddedness in supply chains.

3. STEER STATE-OWNED ENTERPRISES TO DRIVE EQUITABLE DECARBONISATION PATHWAYS

State ownership represents a potentially powerful, yet often under-used, instrument for advancing national climate goals. State-owned enterprises (SOEs) are typically mandated to provide essential public services, ensure universal access (particularly for poorer and remote communities), and manage strategic natural resources on behalf of citizens. They may be directly owned by line ministries or held through holding companies, at both national and sub-national levels.

SOEs play a significant role in the global economy. In 2023, they accounted for roughly 25% of the world's 500 largest companies, representing 12% of global market capitalisation.[21] Their influence is even more pronounced in emerging markets, where they are responsible for over half of all infrastructure investment, particularly in the energy, transport and water sectors.

In Latin America, the market capitalisation of listed firms with more than 25% public ownership stands at 16%, compared with 2% in OECD countries[22].

This structural importance makes SOEs central actors in the climate transition – but also exposes underlying vulnerabilities. While many SOEs are well-managed and deliver high-quality services, a considerable share face chronic under-capitalisation, high indebtedness, and weak corporate governance. They are often caught between conflicting mandates: expected simultaneously to deliver social policy objectives, maintain affordability, support fiscal needs, and operate with commercial discipline. These tensions can lead to inefficiency, political capture, and delayed investment cycles – precisely when accelerated, climate-aligned capital deployment is most needed.

iv. Science Based Targets Initiative (SBTi) provides a framework for setting science-aligned emissions reductions targets and Taskforce on Climate-related Financial Disclosures (TCFD) provides a framework for reporting climate-related risks and financial impacts

Decarbonisation of SOE operations and supply chains is an imperative to meet global climate goals. Collectively, SOEs emit over 6 GT of CO_2 every year – equivalent to 10% of annual worldwide emissions and more than the emissions of any single country except China.[23] Indirectly, state enterprises also represent a unique opportunity to accelerate the transition in the broader economy. By combining commercial activity with public policy mandates – and closeness to governments – SOEs can be a powerful engine to transform markets, leapfrog high carbon development pathways and increase energy security.

Yet to date, only about 25% of SOEs globally have explicit climate goals embedded in ownership policies. Evidence from surveys and EBRD investment proposals suggests that SOEs are no more likely to pursue climate investments than private firms – and in many cases, less likely.[24] While SOEs have increased investment in renewables, they have also continued to invest heavily in the fossil fuel economy, including coal power.[25]

THE OPPORTUNITY

Governments – through ownership, regulation, and fiscal policy – are uniquely positioned to align SOEs with their climate agenda and country platforms. Doing so can also benefit SOEs, enhancing cost competitiveness, managing transition risks, and boosting innovation.

Leveraging SOEs to decarbonise high-emitting sectors is a critical priority. State businesses control significant carbon-intensive infrastructure in EMDEs – across power, steel, cement, oil and gas, and transport. By shifting investment pipelines toward renewables, electrification, and low-carbon industrial processes, SOEs can drive systemic change – sometimes faster than fragmented private markets. India's NTPC, the country's largest integrated power utility, majority-owned by the government, is a leading example. In 2025, NTPC announced plans to invest more than $23 billion USD in renewable energy projects in Madhya Pradesh.[26] Together with Sustainable Energy for All (SEforALL), NTPC is developing a comprehensive energy transition roadmap aligned with India's energy security and net-zero commitments. This includes scenario modelling, investment planning, and socio-economic analysis of diversification benefits. NTPC and its subsidiary NTPC Green Energy are deploying innovations across green hydrogen, floating solar PV, battery storage, pumped hydro, and carbon capture and utilisation.[27]

Sovereign wealth funds (SWFs) and holding companies can reinforce SOEs' role in the energy transition, mitigating structural and institutional risk and crowding in private capital. For instance, Saudi Arabia's Public Investment Fund (PIF), through its ICMA- and LMA-aligned[v] Green Finance Framework, has issued over $12 billion in green bonds and sukuk[vi] since 2022, providing a transparent, replicable financing model that lowers the cost of capital for SOEs and channels investment into renewables, grids, and clean transport.[28] By setting governance, eligibility, and reporting standards that align with global best practice, PIF has enabled SOEs to cut financing costs, strengthen dividend resilience, and anchor national decarbonisation while signalling a credible pathway for other sovereign investors.

Improved SOE performance on climate can also generate essential co-benefits. The Nigerian National Petroleum Corporation (NNPC) is the 25th-largest global emitter, yet loses an estimated $1.5 billion USD each year through gas flaring – enough to fund Nigeria's education, power, and health ministries combined.[29] Transitioning toward cleaner operations would not only drive down emissions but cut costs and increase fiscal space.

v. International Capital Market Association (ICMA) and Loan Market Association (LMA) set principles for green and sustainability-linked financing instruments and voluntary guidelines on use of proceeds, reporting, and transparency
vi. Sukuk are Sharia-compliant financial instruments similar to bonds but differ by providing ownership of an asset instead of a debt obligation

SOEs can also play a pivotal role in ensuring the transition is socially equitable. Governments and state enterprises together control roughly 70% of global oil and gas production and roughly 60% of coal mines and plants.[30] This ownership concentration means SOEs have a critical role to play in managing an inclusive and just transition, including ensuring an orderly phase-down of high-carbon assets, repurposing sites, and cushioning regional economic shocks. Setting SOEs up to drive a just transition calls for embedding long-term climate and social objectives into ownership policies, linking incentives to outcomes, and mobilising concessional finance for reskilling and investment in impacted communities. Examples include the role of Eskom, South Africa's public electricity utility, in the country's Just Energy Transition Project (JETP). South Africa's electricity system accounts for nearly half of national emissions, with historic shares for coal power of over 80%. Eskom, which generates 95% of electricity nationally, is now leading the shift toward renewables under the $8.5 billion USD JETP, backed by international partners. The initiative combines early retirement of coal plants with investments in renewables, battery storage, and community revitalisation.

In parallel, Eskom has undertaken a multi-year unbundling to separate generation, transmission, and distribution entities in an effort to improve governance, transparency, and financial viability, unlocking the capital needed and strengthening the foundations for Eskom to act as a key anchor of South Africa's just transition.[31]

Today, the full potential of SOEs in driving the transition is constrained by political economy and fiscal challenges. Many SOEs face weak governance, operational inefficiencies, and fragile financial health, limiting their capacity to invest in clean technologies or finance the upfront CAPEX required for the transition. Weak financial viability and limited capacity of SOEs to attract private finance are further impediments to affordable transitions. Government dependence on state enterprises – either fiscally or through support in political coalitions – can also disincentivise policymakers from imposing measures to accelerate climate action by SOEs where these raise (short term) costs or provoke opposition. Overcoming these structural barriers will be essential to harness SOEs as an engine of the transition.

KEY ACTIONS

1. **Embed climate and just transition objectives:** Governments can integrate net-zero and social goals into SOE ownership policies and public policy objectives (PPOs) or public service obligations (PSOs). Clear mandates and KPIs can align SOE incentives with national climate strategies, build trust and ensure accountability. Early SOE transformation wins can come from corporate governance reforms that require no legislative change.
2. **Deep structural reform:** Structural reforms including targeted unbundling and, where appropriate, private sector participation are required to turn SOEs into effective engines of transition. Re-structuring can improve efficiency and transparency, boost competition and mobilise private capital.
3. **Mobilise finance and restore creditworthiness:** Many SOEs face financial distress that limits investment in clean energy. Finance ministries and development partners can pursue tariff reform, debt restructuring, and blended finance mechanisms to unlock green investment and support early-stage transition projects.
4. **Build institutional and technical capacity:** Governments and international partners can invest in skills, data systems, and planning capacity to help SOEs design credible transition pathways, manage climate risks, and implement green procurement and innovation at scale. Governments should enhance board expertise in sustainability and risk, ensuring SOEs can make credible, climate-aligned investment decisions.
5. **Drive internal action and accountability:** SOE leadership can embed climate performance into corporate strategy and culture – through emissions disclosure, sustainability-linked incentives, and board-level climate committees – to turn policy commitments into operational change.

B. THE ROLE OF HOUSEHOLDS

Households represent a powerful but under-recognised and complementary source of investment in the climate transition.

In EMDEs, where public budgets and external finance alone cannot meet the scale of climate ambition, household savings and spending decisions play an important role in mobilising domestic capital for climate, alongside corporates and financial institutions. Yet this potential remains under-realised in most EMDEs due to affordability constraints, limited access to appropriate financial products, and low levels of formal financial inclusion.

Empowering households to participate – where it is financially viable for them – can help accelerate the transition while deepening the domestic capital base and strengthening national ownership of climate and development outcomes without shifting the primary financing burden away from corporates and the financial sector.

1. EMPOWER HOUSEHOLDS AS SOURCES OF INVESTMENT FOR THE TRANSITION

Households are already a critical source of climate investment in EMDEs, and their contribution can continue to grow. In 2023, households accounted for 22% of private climate investment in EMDEs, but 37% in advanced markets[32] – indicating scope for increased household participation in EMDES, while recognising differences in income levels and spending power. Globally, households have been a key driver of climate finance growth, contributing to over 40% of the increase in clean energy investment since 2016, the largest single share.

In advanced economies, where supportive policies are in place, households drove nearly 60% of total growth in energy investments.[33] Given EMDE private investment must reach $1.4 trillion in 2035, were households to maintain a similar contribution to EMDE private investment as they do today – indicatively 20 to 30% – this would imply an approximately 8-fold increase to around $350 billion. An estimated $210 billion of this – up to 60% – could be self-financed.

THE OPPORTUNITY

The shift from centralised fossil-fuel systems to increasingly decentralised renewable energy creates new opportunities for households to become direct investors in the transition – whether through their own savings or via loans.

Harnessing households as sources of climate investment can drive growth in key solutions and sectors, particularly those that shape wellbeing, livelihoods, and resilience. These include access to renewable energy (rooftop and off-grid solar systems), energy efficiency (home retrofits, efficient appliances, and insulation), e-mobility (EVs, hybrids, electric motorbikes), and clean-cooking solutions. Increasingly, households – on the front lines of climate impacts – are also set to invest in adaptation measures such as heat-resilient housing, efficient cooling, and sustainable irrigation systems. Broader participation in climate investment stands to strengthen energy security, reduce household vulnerability to price shocks, and deliver more equitable access to the benefits of clean technologies.

Yet household investment in EMDEs remains far below that of advanced economies, reflecting a combination of structural, financial, and behavioural barriers. Affordability is the most immediate constraint. Many clean technologies still require high upfront payments, even if their lifetime costs are lower. For instance, clean cooking stoves can cost up to 3/4 of a low-income household's monthly income, putting them out of reach for more than half of the 2.3 billion people who still rely on polluting fuels for cooking.[34]

Similar dynamics affect rooftop solar, energy-efficient appliances, and electric vehicles, where the initial investment remains prohibitive without targeted subsidies or credit support.

Access to finance is another major bottleneck. While a portion of household investment is self-financed through savings, intermediated finance is also essential – particularly where upfront investment needs are high. However, access to formal credit remains highly constrained for households in EMDEs, with many individuals effectively excluded from traditional lending channels due to affordability barriers, lack of collateral, and financial institutions' limited incentives to serve small or irregular borrowers.[35]

Information and trust gaps further constrain demand. Many households are unfamiliar with clean technologies or uncertain about their performance and quality, especially in markets where product standards, after-sales service, and warranties are weak. Limited awareness of available financing options also constrains uptake.[36] Behavioural factors – such as a preference for precautionary rather than investment-driven savings – compound these barriers.

KEY ACTIONS

1. **Make clean technologies affordable through targeted incentives:** Governments can expand access to climate solutions by offering rebates, VAT exemptions, tax credits, or direct subsidies that reduce upfront costs. India's Surya Ghar programme illustrates this approach: providing roughly $340–$880 subsidies for rooftop solar installations, it has reached over 2.8 million households and added 9.6 GW of clean energy capacity since its launch in February 2024.[37] Complementary policies such as net metering – that allows consumers to sell excess power back to the grid – or bulk purchasing can further improve the economics of household investment.
2. **Mainstream inclusive finance:** Integrating financial inclusion and consumer climate finance into national climate strategies can ensure that households are recognised not just as beneficiaries, but as active participants and investors in the transition. For example, Bangladesh's National Financial Inclusion Strategy[38] published in 2021 specifically addresses green finance especially for remote rural populations.
3. **Expand access to green consumer finance:** Banks, microfinance institutions, and cooperatives can design tailored lending products – such as green mortgages, low-interest consumer loans, and climate-linked insurance – to help households invest in clean energy, e-mobility, and resilience. MDBs and DFIs can provide concessional capital to banks to de-risk lending to households and incentivise financial institutions to enter new markets.

4. **Leverage digital and innovative financing models to reach underserved households:** Mobile banking and pay-as-you-go models can make climate products affordable even for low-income families. M-KOPA in East Africa has demonstrated this model at scale: customers pay a small deposit and around $0.50 per day for solar home systems – less than what they would otherwise spend on kerosene or candles. With over 90% repayment compliance, M-KOPA has since expanded into smartphones, digital loans, and e-mobility, showing how technology can unlock inclusive green finance[39].

5. **Boost awareness, trust, and product quality:** Governments and the private sector should invest in consumer awareness campaigns, product certification, and quality assurance standards to build confidence in emerging technologies and accelerate market growth.

2. STRENGTHEN THE ROLE OF HOUSEHOLDS AS A FOUNDATION OF DOMESTIC RESOURCE MOBILISATION

Domestic Resource Mobilisation (DRM) is the process of mobilising domestic savings and resources – public and private – for productive, socially beneficial investment.

In the context of the transition, greater DRM can unlock additional capital, reduce dependence on volatile (and limited) external finance, and strengthen local ownership of the climate investment agenda. Of the $3.2 trillion projected annual financing need for climate in EMDEs by 2035, an estimated $1.9 trillion is expected to come from domestic sources.[40] Enhancing DRM is therefore essential to achieving climate and development goals.

Households are an essential foundation of domestic resource mobilisation. Their savings are key determinants of the volumes of local capital available to be mobilised and channelled toward investment. As household savings enter the formal financial system – through banks, pensions, or insurance – they expand domestic capital pools, increase assets under management, and enhance the capacity of financial systems to invest in climate-aligned projects.

THE OPPORTUNITY

Formalising and mobilising household savings within the financial system deepens domestic capital markets and helps unlock local climate investment – all while improving financial security and resilience for households themselves. But household savings as a source of domestic capital remain under-leveraged across EMDEs, constrained by structural and behavioural barriers.

Affordability and accessibility of formal financial services is a critical obstacle. The costs of maintaining a bank checking account and conducting a few basic transactions can exceed 5 percent of monthly income for consumers in some EMDEs, mainly in Africa[41].

These findings underscore the considerable challenge of affordability as a significant barrier to access financial services, especially for low-income households and SMEs. Indirect transaction costs, such as travel time, and distance to the nearest bank are also key predictors of whether households use formal financial services.[42]

Low trust and weak incentives to use formal financial institutions are a further barrier. In many communities, informal mechanisms such as savings groups, cooperatives, and the accumulation of physical assets are seen as safer and more accessible. These systems are often socially embedded and flexible, while formal institutions may appear remote and opaque. The consequence is a high share of non-financial savings.

For example, in some EMDE contexts such as Uzbekistan, households commonly store wealth in assets such as livestock, gold, foreign currency, or even durable goods like cars, whose value may be preserved due to limited supply, rather than depositing savings in financial institutions[43]. While these assets help preserve value and smooth consumption, they are not readily mobilised as productive capital that can be channelled into climate investment. The result is that large pools of household wealth remain disconnected from the broader financial system.

KEY ACTIONS

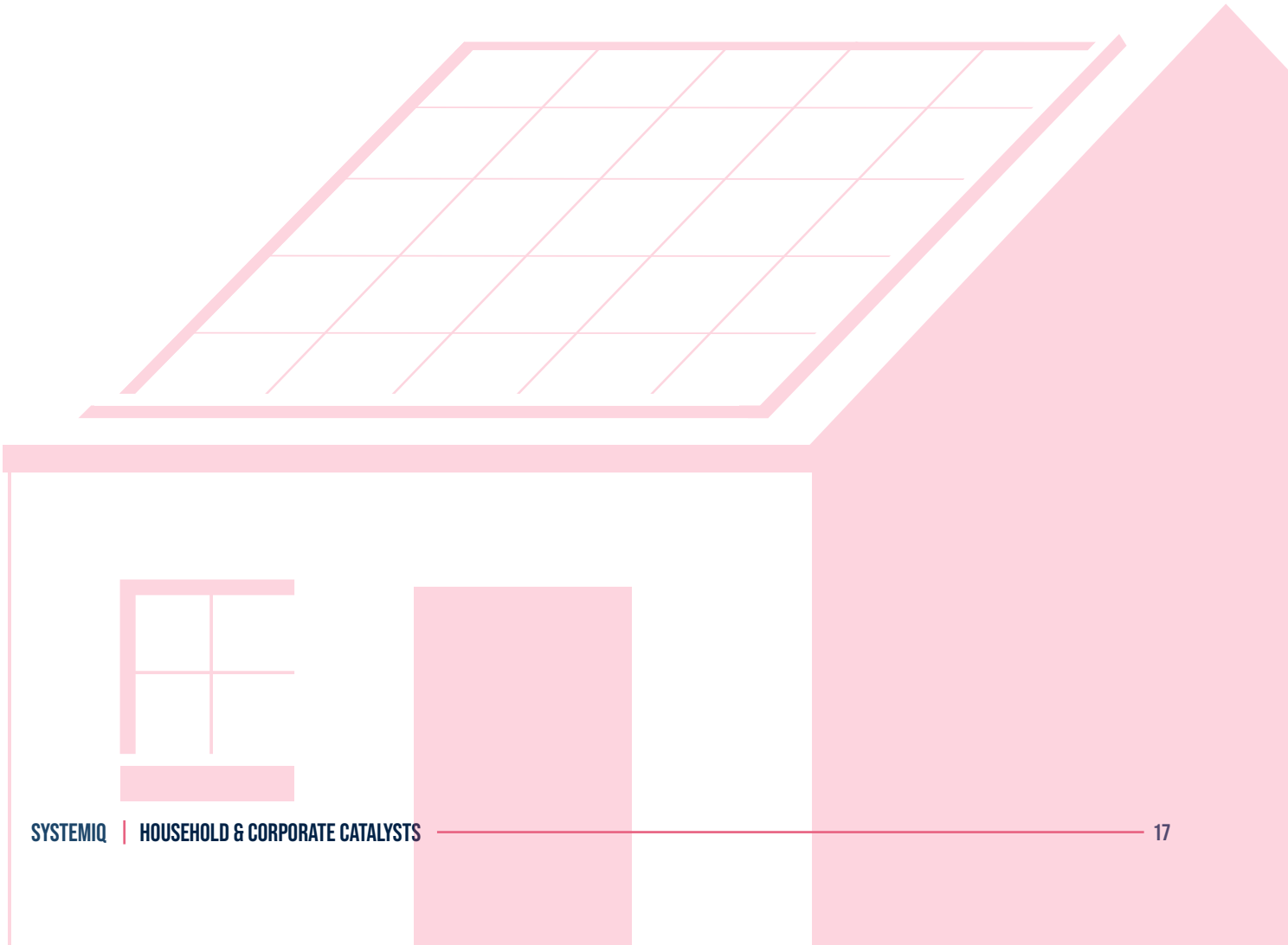
1. **Broaden access through digital finance and innovation:** Expanding mobile banking, digital wallets, and fintech savings tools can reach households beyond traditional banking networks. Governments and financial institutions should scale similar models and integrate them into national financial inclusion strategies. This can also offer resilience co-benefits; in Tanzania, for instance, mobile money users maintained consumption levels after severe flooding, demonstrating how digital inclusion strengthens financial resilience to climate shocks.[44]
2. **Strengthen rural microfinance and community-based institutions:** Microfinance institutions and cooperative banks are well placed to mobilise savings in rural and low-income communities. Support from DFIs, e.g. through concessional funding and capacity building, can help extend their reach.
3. **Deepen financial markets through pensions, insurance, and deposit protection:** Expanding pension and insurance schemes can increase long-term household savings and reduce vulnerability to shocks, e.g. through policies like mandatory pensions and the introduction of deposit insurance.
4. **Enhance financial literacy, awareness and trust:** Governments and community organisations can lead financial literacy campaigns and introduce simple, transparent savings products. For instance, Fiji's national financial inclusion strategy, which includes inclusive green finance modules, provides a model for linking education with climate-aligned financial participation[45].
5. **Integrate civil society in design:** Households savings can be highly influenced by local culture and financial literacy. Working with local civil society for climate investment projects can help developers better understand needs, raise awareness and build capacity. For example, Tajikistan's CLIMADAPT microfinance project worked with a local NGO to facilitate communication with local communities and help identify needs to ensure that the project's solutions demonstrated true additionality.[46]

CONCLUSION

Unlocking the full potential of corporates and households as engines of climate investment in EMDEs is not a marginal opportunity but essential to closing the climate finance gap.

Corporates and households shape investment pipelines and determine demand for solutions and so, can provide a growing share of climate finance in EMDEs, positioning them to become powerful catalysts of investment, innovation, and resilience. Yet barriers need to be addressed. Credible policy, fit-for-purpose finance and strategic use of catalytic and concessional resources to support corporate and household investment is necessary.

Both domestic and international financial institutions can play an important role in addressing some of these barriers, and IFIs can support them through innovative and tailored instruments. This whitepaper has outlined a range of levers to catalyse corporate and household investment. But this remains a under researched area for climate finance: further work remains to be done to understand what are the most effective and scalable instruments that can unlock household and corporate action across sectors in EMDEs and how to tailor such interventions to meet their needs.



APPENDIX

Estimating corporate and household climate investment in EMDEs in 2035

DATA POINT	ESTIMATE	RATIONALE	SOURCE
Private climate investment in EMDEs in 2035	**$1.4 TRILLION**		IHLEG (2025)
Estimated corporate share of private investment in EMDEs in 2035	**30%**	Share in 2023 (latest data available) is 35% in EMDEs; 26% in advanced economies. Assumes reduction in EMDE share to 30% as a) domestic private finance sources likely to fall relative to cross border or external flows; b) as a proportion of domestic finance, corporate share likely to fall relative to the other sources (incl. households). Assumes contribution converges to mid-point of EMDE/ advanced market share	Shares today calculated from CPI GCLF Database (2025)
Estimated household share of private investment in EMDEs in 2035	**25%**	Share in 2023 (latest data available) is 22% in EMDEs; 37% in advanced today. Assumes small increase in EMDE share to 25% as a) domestic private finance sources likely to fall relative to cross border or external flows; b) as a proportion of domestic finance, household share likley to increase given significantly higher contribution in advanced markets	Shares today calculated from CPI GCLF Database (2025)
Share of corporate flows in EMDEs in 2035 from domestic sources	**80%**	Limited difference between shares in EMDEs (78%) and advanced markets (82%) in 2023 data. Assumes mid-point	Shares today calculated from CPI GCLF Database (2025)
Share of household flows in EMDEs in 2035 from domestic sources	**95%**	Use similar share to in EMDEs today (96%)	Shares today calculated from CPI GCLF Database (2025)
Share self-financed (corporates and households)	**50%**	IHLEG estimates across corporates and households up to half of climate investment in EMDEs may be self financed. We assume this share is higher for households (~60%) and lower for corporates. Households estimate based on CPI data which shows that in 2023, 75% of household investment was equity versus debt investments. An assumed increase in debt as a share of spending is projected by 2035 to account for increasing access to affordable finance	IHLEG (2025) CPI GCLF Database (2025)

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