Delivering an integrated climate finance agenda in support of the Baku to Belém Roadmap to 1.3T

Fourth report of the Independent High-Level Expert Group on Climate Finance

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Preface and acknowledgements

The Independent High Level Expert Group (IHLEG) on Climate Finance has been supporting the deliberations on the climate finance agenda under successive COP Presidencies since COP26. The group is co-chaired by Amar Bhattacharya, Vera Songwe and Nicholas Stern. Eléonore Soubeyran serves as Executive Secretary and Head of the Secretariat. The full membership is provided at the end of the report. This independent group was tasked to help develop and put forward policy options and recommendations to encourage and enable the public and private investment and finance necessary for delivery of the commitments, ambition, initiatives and targets of the UNFCCC Paris Agreement, reinforced by the Glasgow Climate Pact, the Sharm el-Sheikh agenda, the COP28 Global Climate Finance Framework and the COP29 Baku Climate Unity Pact.

This fourth report of the IHLEG has benefitted enormously from the active and high-quality participation, guidance and input of the group's members, and from engagement with a wide range of stakeholders. We are deeply grateful for the guidance and interactions with the COP30 Presidency team under the leadership of Ambassador André Corrêa do Lago and Ana Toni. The preparation of the report was greatly supported by the close engagement with the team in the Brazilian Ministry of Finance led by Vice Minister Tatiana Rosito and Ivan Oliveira and the extensive work that was undertaken in the preparation of the Circle of Finance Ministers report on the Baku to Belém Roadmap. Our report therefore is closely aligned with the Circle of Finance Ministers report.

The authors would like to thank the participants at a roundtable that was co-hosted in June 2025 with the UN Climate Change Executive Secretary on taking stock and setting the climate finance action agenda and deliverables. We also thank the Executive Secretary and counterparts in the UNFCCC Secretariat for their continuing support and feedback. We would like to express appreciation for the close partnership with the GFANZ team, including Alice Carr, Ben Weisman, Sam Sherburn, Karishma Gulrajani and Alex Michie. The report benefitted from close collaboration with and support from Systemiq, including the work on the private finance agenda led by Mattia Romani, the publication of a companion report on nature, 'Making Natural Capital Count', which sets out a roadmap for embedding natural capital into economic and financial decision-making and for mobilising investment at scale (Center for Global Commons and Systemiq 2025), and close interaction with the team who prepared the recent report *Returns on Resilience: Investing in Adaptation to Drive Prosperity, Growth and Competitiveness* (Systemiq, 2025), led by Guido Schmidt-Traub and Julia Turner. Thanks are due also to the participants of the four roundtables with the private sector that GFANZ organised in partnership with the Ministry of Finance, Brazil, IHLEG and the Blended Finance Taskforce, and Ninety-One in the case of the London Roundtable. We have also worked closely with OECD counterparts on this agenda over the past year, including Haje Schutte, Jens Sedemund and Ozlem Taskin. We have also benefitted from continuing interactions with the UN Climate Action team, especially Selwin Hart and Muhammad Imran Khan. We are grateful for interactions and suggestions from Nicola Ranger, Nick Godfrey, Anika Heckwolf, and Maria J Pimenta at the Grantham Research Institute on Climate Change and the Environment; Baysa Naran and Matthew Price at the Climate Policy Initiative; Cecilia Tam at the International Energy Agency; Luke Bailey and his team at the UK Foreign, Commonwealth & Development Office (FCDO); Asad Naqvi, Nathalie Olsen, Jessica Smith, Michael König and Ivo Mulder at the UN Environment Programme; Jamie Fergusson, Stephane Hallegatte, Fiona Stewart and Augustin Maria at the World Bank Group; Mariana Carolina Silva Zuniga at the Global Infrastructure Facility; Hans Peter Lankes, Hazel Granger and Archie Gilmour at ODI Global; Alain Beauvillard and Artur Cardoso de Lacerda at the Green

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The writing team was led by Amar Bhattacharya with Eléonore Soubeyran, with the guidance of Vera Songwe and Nicholas Stern. The following people led on different sections: Amar Bhattacharya (investment, financing pathways, external private finance, multilateral development finance); Eléonore Soubeyran (investment, climate finance landscape, quality of finance, technology and supply chains, ensuring a just transition, carbon markets, concessional finance); Homi Kharas, Charlotte Rivard, Liv Schaefer (debt, multilateral development banks); Mattia Romani, Jeroen Huisman, Jennifer Ring, Maxine Gibb, Johanna Schluter (private finance); Marilou Uy (country-led investment, domestic resource mobilisation, concessional climate finance); Josué Tanaka (cities, country platforms, Vertical Climate and Environmental Funds); Delfina Godfrid (technology and supply chains, Article 2.1c, regulatory frameworks); and Luiz Pereira da Silva (regulatory frameworks). Georgina Kyriacou edited the report.

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Overview

This report sets out a comprehensive and feasible pathway to mobilise **US$1.3 trillion per year in external finance by 2035** for developing countries other than China, in support of a total investment requirement of **US$3.2 trillion per year by 2035** to meet climate and development goals, in particular the Paris Agreement.

Prepared by the Independent High-Level Expert Group on Climate Finance (IHLEG) at the request of the COP29 and COP30 Presidencies, it provides an analytical foundation for the *Baku to Belém Roadmap to 1.3T*. The Group has been privileged to work closely with the COP30 Presidency and has benefitted enormously from the engagement with the Circle of Finance Ministers and their work.

The report finds that there is an entirely feasible path to mobilising US$1.3 trillion by 2035 from external sources of public and private finance to boost economic development and climate action in developing countries other than China.

The US$3.2 trillion per year by 2035 consists of investment across five interconnected action areas that together define the global climate action agenda, as part of an overall strategy for sustainable development and poverty reduction:

- Clean energy transition (US$2.05 trillion): scaling up renewables and other low-emissions power, grids, storage and fuels.
- Adaptation and resilience (US$400 billion): strengthening infrastructure, agriculture and health systems to withstand climate shocks.
- Loss and damage (US$350 billion): addressing unavoidable climate impacts and recovery needs.
- Natural capital (US$350 billion): conserving forests, soils, water systems and biodiversity.
- Just transition (US$50 billion): ensuring that climate action creates fair opportunities for workers and communities.

Around 60% of this US$3.2 trillion could be financed internally, thus US$1.3 trillion in external finance will be required each year. Roughly half of the US$1.3 trillion could come from private sources, with the remainder from multilateral, bilateral and concessional flows. These different sources are mutually supporting in terms of matching finance to investment needs and together reduce risk and the cost of capital.

Achieving the $1.3 trillion target would represent a sevenfold increase on current levels of around US$190 billion in 2022. This might seem ambitious, but it is feasible and what is needed for delivery on the goals of the Paris Agreement. Failure to achieve these goals would put the world in a dangerous place and potentially undermine and reverse development.

To deliver on this programme, we propose a three-pillar strategy:

1. Invest and transform: harness technology and capital to drive low-carbon, resilient and inclusive growth, and the structural and systemic transformation required.
2. Build domestic foundations: expand fiscal space, tackle debt constraints, and mobilise domestic resources, anchored in country-led strategies and platforms that foster investment and align priorities with implementation capacity.
3. Scale up external finance: expand private investment, make multilateral and development finance institutions bigger, bolder and better, and increase concessional and innovative sources of capital – through official bilateral finance, South–South

cooperation, carbon markets, Special Drawing Rights (SDRs), solidarity levies, debt swaps, innovative blended finance, and philanthropy.

In setting out a detailed and coherent action agenda for each source of finance to unlock the scale necessary for US$1.3 trillion per year by 2035, we identify eight overarching and mutually supporting priorities for policymakers:

1. **A strategic and managed transition,** with engagement and coordination by Finance Ministers and leadership from the top of government.
2. **Country-led investment strategies and platforms** as the cornerstone of a positive environment for investment, including coordination and accountability.
3. **Debt and fiscal reform** to enhance investment capacity and strengthen domestic resource mobilisation.
4. **A coherent development-finance system**, with multi-lateral development banks (MDBs), development finance institutions (DFIs), Vertical Climate and Environmental Funds (VCEFs) and national development banks (NDBs) operating as a unified and coherent ecosystem.
5. **Private finance at scale,** driven by private sector entrepreneurship and emerging new solutions for de-risking and reducing the cost of capital, and enhanced by public–private partnerships.
6. **Reinvigorated official and South–South finance,** strengthening solidarity and shared learning.
7. **Innovative and predictable concessional flows,** drawing on carbon markets, SDRs, levies, philanthropy and innovative blended finance.
8. **Collaboration and shared purpose** across governments, institutions and civil society.

The *Baku to Belém Roadmap to 1.3T*, supported by the Circle of Finance Ministers, this report, and complementary initiatives such as the Circle of Economists, provides a unifying framework for implementation. It builds on a rapidly evolving and mutually supporting institutional ecosystem: the *COP, G20* and *UN* processes; international institutions including the *World Bank, IMF* and *OECD*; and an expanding network of coalitions such as the *Coalition of Finance Ministers for Climate Action, Network for Greening the Financial System (NGFS), Paris Pact for People and Planet, Bridgetown Initiative* and *V20*. The private sector, through the *Glasgow Financial Alliance for Net Zero (GFANZ)* and the *Global Investors for Sustainable Development Alliance (GISD)*, along with civil society and think tanks, are also creating and aligning behind common priorities in energy, resilience and nature.

Together, these efforts embody the spirit of *mutirão* – the collective effort for implementation that Brazil has placed at the heart of COP30 – and represent a feasible pathway for turning the US$1.3 trillion into reality by 2035.

Summary

This report was prepared by the Independent High-Level Expert Group (IHLEG) on Climate Finance at the request of the Presidencies of COP29 and COP30, in support of the *Baku to Belém Roadmap to 1.3T*. It sets out an integrated climate finance agenda, including an actionable pathway to mobilise US$1.3 trillion[1] in external climate finance annually for developing countries by 2035: flows that are essential to achieving the Paris Agreement and driving sustainable, resilient and inclusive growth. The IHLEG has been privileged to work closely with the COP30 Presidency in preparing this report and has benefitted enormously from the engagement with and the work of the Circle of Finance Ministers.

Three recent outcomes shape the global framework for climate finance. At COP29, Parties agreed the New Collective Quantified Goal (NCQG), including a goal to mobilise at least $300 billion per year by 2035 for developing countries, with developed countries taking the lead. A broader goal was also set to reach at least $1.3 trillion in total external finance per year by 2035. To guide delivery, COP29 launched the Baku to Belém Roadmap, a structured bridge to COP30. In parallel, the COP30 Action Agenda, launched by Brazil, sets out six action areas and 30 objectives serving as 'super-leverage points' to accelerate breakthroughs, such as tripling renewable energy capacity, halting deforestation and strengthening resilience.

The NCQG decision provides the context for raising ambition on all aspects of Article 9 of the Paris Agreement, which in addition to the finance target includes the need to improve access to finance, achieve balance between mitigation and adaptation, and address barriers to scaling up climate action such as the high cost of capital. The NCQG is accompanied by the recognition of the even greater task of mobilising the trillions needed, which will require all actors to work together to tap an even wider array of finance sources.

The case for decisive action is clear: investing in development in ways that take careful account of climate and nature unlocks low-carbon and inclusive prosperity; delay drives escalating risks and costs; and accelerated action is an effective and attractive growth strategy, generating jobs, productivity and resilience. Recent international rulings, such as the International Court of Justice's *Obligations of States in Respect of Climate Change* advisory opinion, underline that protecting the climate and environment, and thus the right to development for all, is part of a duty to uphold human rights. At the same time, tackling climate change and nature loss is to embrace one of the greatest economic opportunities of our era. It requires a new vision of transformation that goes beyond mitigating carbon emissions to building economies that are low-carbon, resilient, nature-positive and inclusive.

This report is structured around three pillars that together outline the pathway to mobilising and effectively deploying the $1.3 trillion per year in external climate finance needed by 2035 (see Figure S1):

- **First, it examines how investment and technology** can drive transformative change, highlighting the unprecedented opportunities for emerging markets and developing economies (EMDEs) to leapfrog to clean, efficient and resilient growth.
- **Second, it sets out the foundations for achieving the $1.3 trillion target** – including country-led investment frameworks, stronger fiscal and debt positions, enhanced

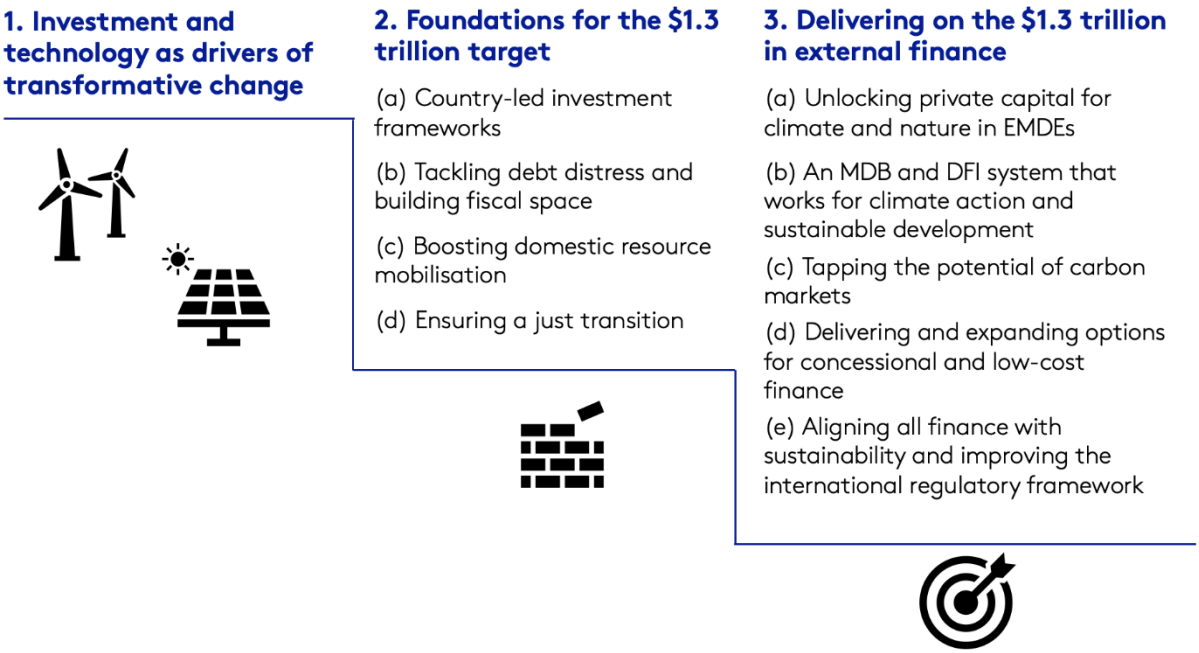
[1] All figures stated in $ in the report are in US dollars unless stated otherwise.

domestic resource mobilisation, and a just transition that safeguards people and places.

- **Third, it details how to deliver the $1.3 trillion in external finance,** focusing on unlocking private capital, reforming the multilateral development banks (MDBs) and development finance institutions (DFIs), tapping carbon markets, scaling up concessional and low-cost finance – including bilateral climate finance, financial flows from South-South cooperation, and new and innovative sources, and aligning the global financial system with sustainability and resilience goals.

These different sources would reinforce and support each other, and together would represent a significant scaling up of external finance compared with current levels of about US$190 billion a year.

Figure S1. Three pillars to mobilise and deploy US$1.3 trillion per year in external climate finance by 2035



The investment imperative

The world faces an unprecedented investment challenge – and a historic opportunity – to drive sustainable and inclusive growth, build resilience, protect nature and meet climate goals. This opportunity arises from the large and well-documented payoffs from climate investments on multiple fronts. The greatest potential lies in accelerating the clean energy transition, where dramatic cost reductions and rapid technological advances – particularly in solar, wind and energy storage – have made renewables the cheapest source of new power. Investments in adaptation and resilience also deliver consistently high returns, with every dollar yielding at least $10 in economic benefits. Equally, protecting and restoring natural capital generates very large direct and spillover gains: safeguarding ecosystems, stabilising the climate, and boosting productivity and growth in sectors such as agriculture, fisheries and water. Taken together, these opportunities demonstrate that investing in climate action is not only vital for meeting global climate goals but also one of the most effective strategies for driving long-term prosperity, resilience and inclusive development.

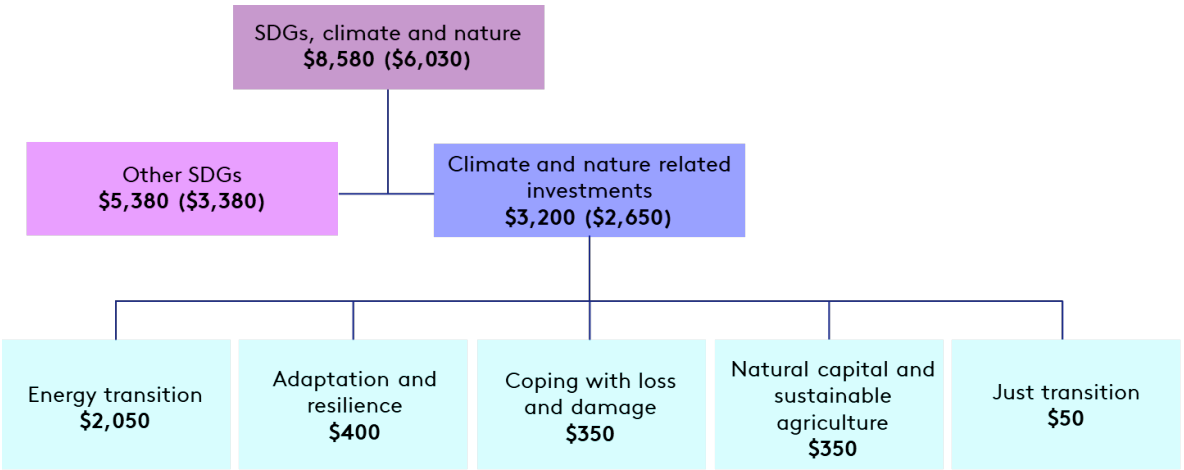
EMDEs are at the heart of both the investment opportunity and the global effort to deliver on climate and nature goals. Seizing these opportunities will require a major investment push over the next two decades. Altogether, global climate investments[2] must reach around $6.5 trillion annually by 2030, and $7.5 trillion by 2035. EMDEs (other than China) – in which potential future emissions growth is the greatest and vulnerability to climate impacts most acute – will require an annual investment flow of around $2.4 trillion by 2030 and $3.2 trillion by 2035. This investment in EMDEs other than China is critical to generate the sustainable economic development and growth required to meet the goals of the Paris Agreement and to advance the Sustainable Development Goals.

Five broad areas define this investment agenda: the clean energy transition, adaptation and resilience, loss and damage, natural capital and the just transition. Each represents a distinct investment priority with its own financing needs and policy challenges, yet they are deeply interconnected – investments in one area shape risks and opportunities in the others. Cities are a key thread that runs through them all: as centres of population, infrastructure and emissions. Urban choices on transport, housing, services and planning will determine whether these investment priorities translate into inclusive, resilient and low-carbon growth.

The report outlines the opportunity, the challenge and the policy and financing priorities in each investment area. Figure S2 and Table S1 show the composition and magnitude of the five investment priorities.

Figure S2. The investment imperative for EMDEs other than China for 2035

Investment/spending requirements for climate and sustainable development ($ billion per year by 2035, increment from current in parentheses)



Investment growth rates in EMDEs have been declining since the mid-2010s, continuing a trend that began well before the COVID-19 pandemic. After averaging almost 10% per year in the 2000s, investment growth in EMDEs fell to around 5% over the period 2010–24, with both public and private investment weakening amid rising debt, tighter financial conditions and global uncertainty (Adarov, 2025). This slowdown has eroded the foundations of growth in human, physical, social and natural capital, leaving many countries less able to seize technological opportunities or withstand intensifying

[2] Climate investments are defined below (and in Figure S2). They are a core part of investments to progress towards the Sustainable Development Goals (SDGs).

climate and geopolitical shocks. Fiscal strategies focused narrowly on debt consolidation risk reinforcing these pressures by constraining the fiscal space required for productive investment in climate, nature and development.

One major consequence has been that progress towards many of the Sustainable Development Goals has been deeply inadequate. The latest assessment by the United Nations concluded that progress has been insufficient on nearly two-thirds of the targets for 2030 that accompany the Goals (UN, 2025). One person in 12 still experiences hunger, and billions lack access to safe drinking water, sanitation and hygiene. Growing impacts from climate change, such as more intense and frequent extreme weather events, are also hampering progress towards the Goals.

The cost of inaction dwarfs the investment requirements needed to accelerate climate action. Some estimates indicate that weakly managed climate change could cut global GDP by up to 30% by 2100 under a 3°C scenario.[3] These estimates are likely to significantly understate the risks: tipping points and dangerous dynamics are likely to be triggered at much lower temperature thresholds than previously estimated, and could reverse growth and development and cause the migration of hundreds of millions of people. The case for decisive and accelerated action is clear: redirect and scale up investment in development now in ways that take careful account of climate and nature, to pursue an effective and attractive growth strategy defined by productivity and resilience that unlocks low-carbon, long-term and inclusive prosperity for EMDEs, generating millions of jobs and reducing poverty. The alternative is to delay, which would only serve to drive escalating risks, costs and damage, locking in an unstable world and lost opportunity.

The conditions for a big investment push have been made more challenging by the legacy impacts of the COVID-19 crisis and its aftermath on the debt and fiscal circumstances of developing countries, by new headwinds and uncertainties in the global economy, by immediate cutbacks and a more uncertain outlook in official development assistance, and by hesitation on the part of some major financial institutions to embrace net zero strategies. Nevertheless, we are at a moment of historic opportunity because of new possibilities and the large payoffs from a big investment push. The Baku to Belém Roadmap provides an important framework, behind which a wide spectrum of stakeholders can come together purposefully in finding the solutions that can deliver on the Paris Agreement and seize the opportunities from climate action.

[3] The world has not seen temperatures 3°C above today's since around 3 million years ago, when sea levels were 5 to 25 metres higher.

Table S1. Climate investment needs in EMDEs other than China in 2035

Category	Sub-category	Investment needs ($ billion)
Clean energy transition	Renewable and other low-emissions power generation	700
	Grids and storage	350
	Efficiency and electrification	850
	Low-emissions fuels and carbon capture, usage and storage (CCUS)	150
	Total	*2,050*
Adaptation and resilience	Agriculture, water and land management	40
	Resilient infrastructure	65
	Coastal protection and management	30
	Disaster risk management	55
	Protected ecosystems	5
	Health and social protection	40
	Institutional capacity, enabling factors, and inclusion	Not quantified
	Private sector resilience (indicative)	165
	Total	*400*
Loss and damage		*350*
Natural capital	Degraded land and soils	150
	Forests and biodiversity corridors	125
	Watersheds and freshwater systems	20
	Coastal ecosystems	35
	Urban nature and green infrastructure	20
	Total	*350*
Just transition		*50*
Total		**3,200**

Note: Estimates on the clean energy transition are based on analysis by the International Energy Agency (IEA), adapted to the IHLEG country coverage and timeframe. Estimates on adaptation and resilience were provided by the UNEP Adaptation Gap Report Finance team (UNEP, 2025) based on data from the ECONOGENESIS and ACCREU projects. Estimates on natural capital are based on Center for Global Commons and Systemiq (2025).

Our previous IHLEG reports have provided broad figures for necessary flows of investment and finance for 2030 and 2035. Here we give much more detail on how different kinds of investment and their finance could be fostered and generated. Thus we have an even stronger focus on the practicalities of implementation. We examine the practical challenges and necessary resources in each area.

An integrated climate finance agenda

Recent years have seen an intensification of both the investment imperative and opportunity. The imperative is reinforced by ever more worrying scientific evidence on accelerating climate impacts and a shrinking window for action. Added to that is the imperative to get global growth moving. Its sluggishness has exacerbated political, economic and social tensions. Fortunately, continuing very rapid technological progress and the experience of increasing deployment is demonstrating ever greater opportunities.

Delivering the $1.3 trillion target by 2035 requires more than mobilising money – it demands a coordinated push across three priorities:

- **First, countries must commit, in a demonstrably credible way, to act at the scale and pace necessary** to seize the investment opportunities in the green transition with the support of development partners.
- **Second, they must buttress the policy and institutional foundations that unlock high quality investments and attract and absorb capital, while tackling structural barriers** such as high debt burdens and constrained fiscal space and boosting domestic resource mobilisation.
- **Third, the international system must mobilise finance at scale, improve access and lower the cost of capital** for the countries and sectors that need it most, towards the goal of $1.3 trillion per year of external finance for climate action in EMDEs (other than China) by 2035.

The IHLEG's integrated climate finance agenda reflects this structure. At its core is a decisive shift in investment and technology to drive transformative change – rapidly deploying proven solutions, scaling up ones that are emerging, and ensuring equitable access for EMDEs. The creation of strong domestic foundations is essential, with the support of development partners: country-led investment strategies and platforms to align priorities and financing; debt and fiscal reforms to unlock public resources; domestic resource mobilisation encompassing strengthening public finance foundations, domestic financial markets, and the role of national development banks; and just transition strategies to foster fairness and political viability.

On this foundation, external finance must be expanded on an unprecedented scale and deployed with far greater impact. The big investment push required has three central implications:

- **First, the path to achieving the $1.3 trillion target cannot be achieved without a major expansion of private finance.** This requires a clear action agenda to connect large pools of capital with investment opportunities in EMDEs, while addressing high costs, risks and uneven quality of capital.
- **Second, development finance must be a cornerstone of the system, both through direct financing and by catalysing much larger flows.** MDBs, DFIs and other development institutions are essential to lowering risks, mobilising private investment, and aligning finance with long-term development goals.
- **Third, concessional finance, though smaller in volume, is indispensable:** it supports the poorest and most climate-vulnerable countries, is necessary for activities with high returns but where revenue streams are difficult to realise, and plays a catalytic role in unlocking other sources of capital.

Delivering on the commitments on bilateral climate finance embodied in the NCQG will be crucial. South–South cooperation can play an increasingly important role. There is

also potential to expand the role of high integrity carbon markets and with it the potential of cross-border, debt-free finance. Expanding concessional and innovative sources – including rechannelling of special drawing rights (SDRs), philanthropy, debt swaps and solidarity levies – can help meet the gap in concessional finance. At the same time, strengthening regulatory frameworks is necessary to improve the quality, predictability and accessibility of climate finance.

Taken together, these measures form a coherent roadmap from ambition to delivery – one that aligns investment, policy reform and financing flows in a mutually reinforcing cycle, enabling EMDEs to seize the growth opportunities of the green transition while building resilience and protecting the planet. Mobilising the investment and its finance will not be easy. But the alternative, failing to deliver on the Paris Agreement, would be much more difficult. Drifting and stumbling towards an unsustainable world, which would be catastrophic for many, should not be regarded as 'a realistic option'.

Domestic foundations for the $1.3 trillion target

Country-led investment frameworks and country platforms

Scaling up climate finance will require ramping up investment programmes and projects and tackling impediments to advancing them. Country-driven priority goals and investment priorities anchored by credible national strategies are critical to achieving the intertwined climate, nature and development goals. Countries need to develop integrated climate and development strategies by mainstreaming climate goals within national strategies, devising well formulated, credible investment programmes and projects with implementation pathways, and building institutional capacity to understand the impact of integrating climate risks into public budgeting and investment planning.

Country platforms have become a central focus of international discussions on climate and development finance. Their momentum has accelerated since 2024, when the Brazilian G20 Presidency placed them at the heart of deliberations on mobilising climate finance and reforming the international financial system. Looking ahead, country platforms are expected to become a mainstream instrument of the global development finance architecture. By 2035, a wide range of countries – including the least developed countries (LDCs) and small island developing states (SIDs) – could be using country platforms to guide finance towards priorities including the energy transition, adaptation and resilience, nature conservation and just transition. Early experience shows that country platforms can succeed only when they reflect country priorities and contexts.

Discussions within the COP30 Circle of Finance Ministers, the G20, the Coalition of Finance Ministers for Climate Action and other structures have identified several priorities to enhance the role of country platforms:

- **Launching a new generation of country platforms** even more closely tied to national priorities, choices and circumstances. The Circle of Finance Ministers has already recommended that interested developing countries move ahead with new platforms aligned with their own national strategies. At COP30 more than a dozen countries are expected to announce new platforms in addition to around 10 that are under implementation.
- **Embedding adaptation and resilience** into the new generation of country platforms.
- **Providing predictable early-stage support.** One of the strongest messages from the Circle is that country platforms cannot succeed without reliable early funding for programme readiness. The Green Climate Fund (GCF) has offered support to help launch the new round of country platforms. Private philanthropy can also play an important role.

- **Reducing fragmentation and improving coordination** among development partners.
- **Securing predictable and long-term finance from DFIs and donors**, with MDBs playing a key anchor role.
- **Ensuring strong private sector engagement from the outset.**
- **Strengthening domestic institutions and fostering inclusion.** Platforms can only be durable and effective if they are embedded in strong national institutions and respond to the needs of society.

Tackling debt distress and boosting fiscal space

Rising levels of debt and debt service now pose a significant threat to investments in climate and nature in many EMDEs and most developing countries that have sub-investment-grade credit ratings. Liquidity solutions, such as the G20-sponsored Debt Service Suspension Initiative and the ensuing Common Framework, have provided some relief but have not dealt with the core problems of the high levels and cost of debt service, the cost and composition of EMDE debt, and remaining exposure to external shocks. Most EMDEs have avoided outright debt default thanks to stringent fiscal austerity but this has led to massive underinvestment in sustainable development, jeopardising and undermining future development outcomes.

In this context, unlocking finance for climate and nature-related investments will require action in four areas:

- **Addressing the legacy of high debt** by: encouraging heavily-indebted countries with sound climate action to participate early in the Common Framework process; incorporating climate action investments into the macroeconomic frame of the Common Framework and other debt treatment processes; expanding eligibility of the Common Framework to include middle-income countries; pursuing all options for refinancing high-cost debt at affordable rates using fresh money from MDBs and restructuring maturities to 30 years; improving debt transparency so that debt restructuring can proceed more effectively and faster; and establishing a borrower forum for sharing experiences and expressing collective voice.
- **Lowering the cost of capital and expanding access to long-term financing** by: enhancing access to and extending maturities for MDB financing, including financing from regular windows that are well below market rates for most EMDEs; reviewing allocation criteria for concessional funds; developing innovative concessional or non-debt-creating climate finance; and limiting private external finance to projects with adequate financial returns and appropriate risk mitigation.
- **Ensuring macroeconomic stability and debt sustainability** by: pursuing domestic resource mobilisation (DRM) and structural reforms; revising fiscal rules to be consistent with desired speed and urgency of priority development spending, including public climate and nature-related spending; building a credible commitment for macroeconomic stability and debt sustainability; and integrating investment surges identified in nationally determined contributions (NDCs) and national adaptation plans (NAPs) into International Monetary Fund (IMF)/World Bank debt sustainability models.
- **Breaking the vicious cycle between vulnerability to climate shocks and unsustainable debt accumulation** by: including debt service pauses following large natural disasters in standard debt contracts; putting in place disaster-related pre-arranged financing; providing fast and predictable post-disaster financing; and working with insurance companies to identify gaps and innovate in risk management and risk pooling.

Boosting domestic resource mobilisation

Mobilising domestic resources – public and private – is foundational to accelerating climate investments and will continue to account for the majority of estimated climate financing by 2035. The key sources of domestic financing are public resources; private domestic financial and private sectors; and national development banks (NDBs). Robust domestic public resource mobilisation is the basis for fiscal sustainability and creditworthiness. It will enable increased government spending for transformative climate investments while managing debt sustainability. Fiscal resilience will also guard against procyclical financial flows and macro-critical impacts triggered by external shocks. Moreover, public resources are essential for activities for which private financing may not be available or affordable, such as fostering a just transition, investing in some types of adaptation, paying for loss and damage, and restoring natural capital.

To bolster public resource mobilisation, EMDEs and especially low-income countries should broaden the tax base and strengthen tax capacity; strengthen international tax cooperation to reduce tax avoidance and harmful tax competition; adopt carbon pricing to accelerate decarbonisation and raise revenues, while managing distributional constraints; phase out fossil fuel and other environmentally harmful subsidies in line with global efforts, while addressing the political economy of reform; enhance the efficiency and resilience of public spending; and scale up international support for capacity-building. The expanding digital infrastructure provides new opportunities for more effective public finance; so does the wider use of information linking direct and indirect taxation, embodied in VAT systems. And in larger economies, strengthening the tax capacities of cities and regions will play a crucial role.

Domestic private finance plays a critical role in aligning finance with climate goals and laying the foundation to attract private external finance. It encompasses banks, contractual savings institutions, capital markets and corporates. It also includes self-financing by households and small enterprises. The reform agenda encompasses three main priorities that overlap and are synergistic with the agenda to boost external private finance:

- **First, strengthen mechanisms to channel financing to climate-aligned investments** by: developing national climate investment plans (and project pipelines) and incentives with the private financial sector; designing public–private partnerships (PPPs) for climate-positive infrastructure; and building investor capacity and expertise in new green asset classes.
- **Second, reform and modernise local financial market policy, regulations and frameworks** by: modernising the investment rules to enable pension funds and insurers to invest in new assets; revising risk assessment, capital adequacy and liquidity frameworks to consider climate risks and the value of de-risking instruments; investing in climate-aligned corporate credit ratings, improving analytical methodologies, data availability and data sharing; providing technical assistance to market regulators; and enhancing financial inclusion for small businesses and households.
- **Third, increase catalytic finance and deploy it more effectively** by: enhancing the ability of MDBs/international finance institutions (IFIs) to provide catalytic financing in local currency; providing seed funding/grants to build pipelines, particularly early-stage equity and project-preparation grants; increasing local currency financing and de-risking mechanisms; and facilitating securitisation of green assets of local banks.

There is growing recognition that national development banks (NDBs) are well-positioned to be strong catalysts in scaling up transformative climate investments. NDBs, which are state-owned entities created by governments to support national

economic and social goals, have been longstanding financiers of projects that the private sector and financial markets have not been able to finance alone. As countries increase their national climate ambition and given the scale of the financing needs, NDBs are also increasingly expected to intensify their role beyond that of direct financiers to become catalysts that mobilise public and private financing.

Given the potential of NDBs, governments should take concerted steps to enhance their role:

- **First, governments should set sound governance and institutional frameworks along with sufficient financial capacity to scale up climate investments.** They should: provide NDBs with clear mandates and goals; ensure NDBs have sufficient capital and resources to deliver on climate financing goals and support NDBs' efforts to deepen domestic capital markets; create a favourable investment environment that incentivises green and climate-resilient investment; and ensure their transparency and accountability.
- **Second, NDBs should strengthen their ability to catalyse investments and mobilise climate financing, with government and international support.** They should: originate, develop and distribute strong project pipelines; and use innovative instruments to leverage access to domestic and international financial markets.
- **Third, NDBs should expand cooperation with MDBs, multilateral climate funds and other IFIs to access affordable finance and capacity-building support.** They should: foster partnerships with MDBs and other IFIs; improve access to concessional financing, risk-sharing instruments and technical assistance; strengthen their catalytic role, improve operational effectiveness and expand their capacity to deliver on climate mandates.

Managing a just transition

Managing structural change fairly, providing opportunity and protection to all, is a defining challenge of climate action. The low-carbon shift will disrupt industries and livelihoods even as it creates new opportunities, and whether it drives inclusive development or instability depends on how deliberately it is planned and financed. A just transition is not only about cushioning risks but about turning disruption into gains – creating decent jobs, resilient communities and more competitive, diversified economies. Well designed and implemented strategies can unlock good-quality jobs and inclusive skills systems, revitalise regions and communities, and strengthen social protection and resilience systems. By 2035, EMDEs will need to significantly scale up just transition spending. The challenges and responses will depend on country circumstances. While rigorous, country-specific assessments are still lacking, our illustrative estimates suggest requirements could amount to $50 billion per year by 2035.

New international frameworks and partnerships are emerging to support countries on this front, including the Just Transition Work Programme (JTWP) established at COP27 and operationalised at COP28, the Just Energy Transition Partnerships (JETPs) in South Africa, Indonesia, Vietnam and Senegal, and the International Labour Organization's Just Transition Guidelines, reaffirmed in 2023.

Experience from global guidance and emerging national practices is beginning to shape a clearer framework for just transition action. Across EMDEs, several elements are important for designing just transition strategies that are credible, durable and financeable:

- **Make the just transition a cross-cutting pillar** of climate and development strategy and finance.

- **Ensure equity and inclusion are explicit** since women, young people, informal and low-income workers, Indigenous Peoples, and other marginalised groups are often the most exposed to transition risks and least able to access new opportunities.
- **Empower local and regional actors.** The social and economic impacts of transitions are felt most directly at the local level. Empowering subnational governments with resources and decision-making authority enables them to plan for and shape more effective response strategies.
- **Strengthen accountability and monitoring.** Shared metrics – such as taxonomies for just transition investments – can help countries cost their plans, assess progress and mobilise finance more effectively.

Delivering on the $1.3 trillion in external finance

Mobilising $1.3 trillion per year in external finance for EMDEs (other than China) by 2035 will require a major expansion of traditional sources of climate finance as well as new and innovative sources of capital. Traditional sources that were included in the earlier $100 billion target encompass bilateral climate finance, multilateral finance from MDBs and Vertical Climate and Environmental Funds (VCEFs), and private finance mobilised by public support. These will remain core elements of the NCQG. External private finance will need to ramp up, accounting for half of the $1.3 trillion. South–South cooperation and carbon markets are expected to make a larger contribution than in the past. With a large prospective shortfall in concessional finance, new and innovative sources of climate finance will need to be pursued, including SDRs, debt swaps, voluntary levies, innovative blended finance and private philanthropy. Based on the scale and composition of investment and the sources of possible finance, we constructed possible scenarios to deliver on the investment goal of $3.2 trillion by 2035 and the external finance target of $1.3 trillion (see Figure S3 and Table S2). Below, we examine the practicalities of each type of finance in turn, highlighting how they interconnect and reinforce one another within the broader financing architecture.

We assess that $1.9 trillion (around 60%) of the financing needed for the $3.2 trillion of climate and related development investment by 2035 is expected to come from domestic resources:

- **Domestic public finance is expected to contribute about $1.15 trillion (around 60% of domestic resources).** Governments will have to take responsibility for most spending in sub-sectors where revenue is minimal: nature-related spending, loss and damage and just transition. In addition, public finance will anchor investments in long-term infrastructure, including for resilience, and can be used to leverage other sources of finance.
- **Domestic private finance is expected to contribute $750 billion (around 40% of domestic resources), mainly from domestic financial markets and from self-financing by corporates and households.** Domestic finance will be critical to laying the foundations for unlocking investment opportunities and attracting external finance. National development and commercial banks will have a key role in project origination. Securitisation that can attract institutional capital must also start at the local level. Countries with more mature local financial markets will have a greater share of domestic private finance.

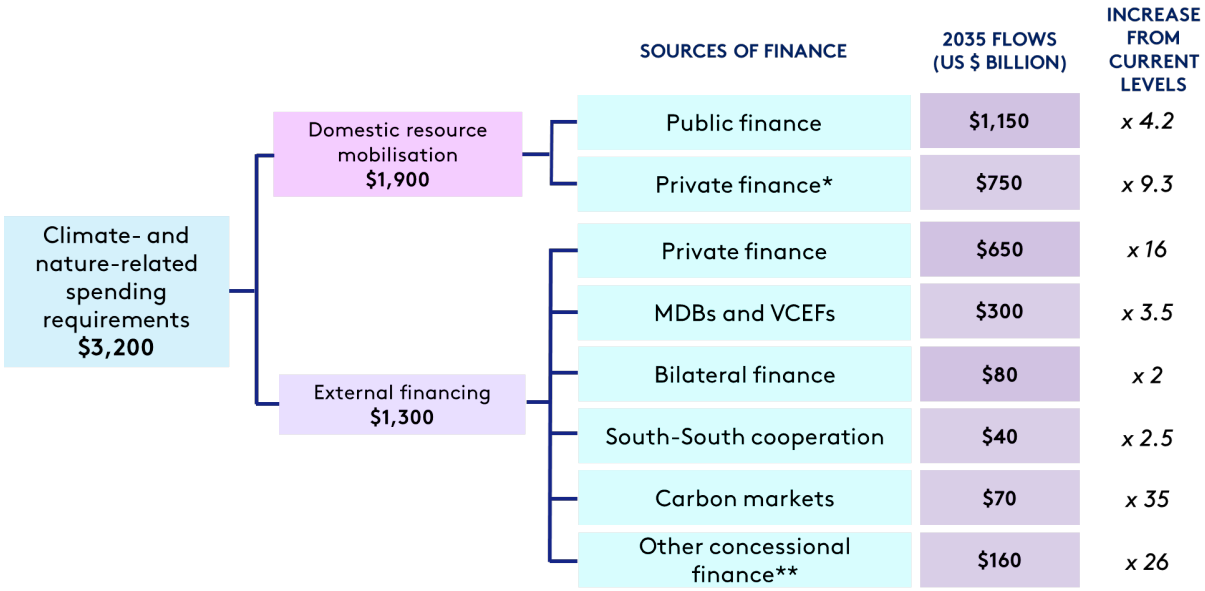
Our analysis estimates that $1.3 trillion (around 40%) will need to come from external finance each year by 2035. Figure S3 provides indicative ranges for the different sources of external finance that together could contribute to meeting this target, with the ranges for each type providing an indication of their potential contribution; some are subject to more uncertainty than others. The different sources of finance also vary in their

concessionality and tenor and therefore their suitability to support different types of investment needs varies too. There are also important potential synergies between the different pools of finance. Concessional finance is needed to finance responses to loss and damage and support spending where revenue streams are the most uncertain, such as investments in adaptation and resilience and natural capital in poor and climate-vulnerable countries. Concessional finance can also help reduce risk and the cost of capital and can therefore unlock other pools of capital, including private finance at scale. International development finance from MDBs, VCEFs and bilateral agencies are well suited to financing long-term public investments such as grids and transport infrastructure and can also play an important catalytic role in mobilising private finance.

- **Given the growing share of private investment and the large potential from global institutional capital, private finance can make the largest contribution to meeting the $1.3 trillion goal – about $650 billion (50% of external finance).** This will require a concerted effort to create the necessary conditions and tackle the cost of capital. A much more structured approach will be needed to mobilise private finance in new and more effective ways. External private finance would need to increase more than 15-fold from current levels by 2035, with a quarter of this requiring some form of blended finance.
- **International public finance led by developed countries must constitute the foundation of the $1.3 trillion goal based on the NCQG decision – about $650 billion (50% of external finance):**
  - **Financing from multilateral sources** – MDBs and VCEFs – will need to at least triple to reach $300 billion by 2035 (46% of international public finance) given their critical direct and catalytic role, with reasonable pathways to achieve this expansion.
  - **Financing from concessional sources and low-cost finance** will need to reach $350 billion by 2035 (54% of international public finance):
    - **Bilateral climate finance** must at least double by 2035 to reach $80 billion by 2035 (23% of concessional and low-cost finance).
    - **South–South cooperation** is also poised to make a much larger contribution and could reach $40 billion per year by 2035 (11%), given the leadership of many large emerging markets in the energy transition and infrastructure space.
    - **Carbon markets,** which so far have been insignificant, could play a much larger role with the efforts now underway under Article 6 of the Paris Agreement and more broadly to revitalise them, to reach $70 billion per year by 2035 (20%) – increasing 35 times from current levels.
    - **A major push on new and innovative sources of finance** could help fill the gap in concessional and low-cost finance, including through SDRs, debt swaps, voluntary levies and private philanthropy – potentially contributing around $160 billion by 2035 (46% of international public finance). This will require concerted effort, coalitions of willing countries, and leadership from major countries, both developed and emerging markets.

Thus, with a concerted and coordinated effort, there is an entirely reasonable path to deliver on the $1.3 trillion goal for external finance that is necessary to underpin the expansion of climate-related investments in EMDEs (other than China) to $3.2 trillion per year by 2035.

Figure S3. Mobilising the necessary financing to $1.3 trillion for EMDEs (other than China) by 2035



Notes: *'Private finance' includes self-financing by households; **'Other concessional' includes SDRs, debt swaps, voluntary levies and private philanthropy.

Table S2. Financing pathways to $1.3 trillion for EMDEs (other than China) by 2035

	2022 ($ bn)	2035 (range; $ bn)
Source of finance		
External private finance		
Mobilised	25	90–150
Direct	15	300–700
Multilateral climate finance		
MDB concessional	20	50–75
MDB regular windows	60	160–240
Multilateral climate funds	3	6–10
Concessional and low-cost finance		
Bilateral official climate finance	42	60–100
South–South cooperation	17	30–60
Carbon markets	2	30–140
Other concessional finance		
Voluntary levies	0	20–110
Special drawing rights	2	5–20
Innovative blended finance	0	10-20
Debt swaps	1	5–10
Private philanthropy	3	5–20
Total	**190**	**770–1,655**

Cross-border private climate finance

Private finance, domestic and external, is expected to make the largest contribution to the financing of the $3.2 trillion investment need underpinning the $1.3 trillion external finance goal. This reflects the changing nature of investment with a large shift to the private sector and the potential to harness private savings. In particular, the very large pool of global institutional capital (in excess of $150 trillion) can be harnessed to meet the large financing needs of EMDEs. As the work of the Circle of Finance Ministers, Glasgow Financial Alliance for Net Zero (GFANZ) and IHLEG have highlighted, this will require concerted efforts to overcome domestic and international obstacles, as well as targeted actions by MDBs, DFIs and donors to mobilise private finance.

To meet the Baku to Belém Roadmap's objectives, the private and public sectors, nationally and internationally, must establish new partnerships that can: co-sponsor investment platforms and transition plans; provide early equity and risk capital; 'jump-start' demand for green products in emerging markets; invest in project preparation ecosystems; and leverage corporates to act as pipeline accelerators. Unlocking private finance at scale also depends on lowering the cost of capital in EMDEs through smarter, scalable structuring and fit-for-purpose risk-sharing instruments and platforms. This includes the scaling-up of FX hedging solutions for both debt and equity and tackling specific risks over the project cycle. Achieving the Roadmap's targets for scale requires systemic mobilisation of long-term institutional capital including through securitisation instruments. This will require developing a new 'originate-to-distribute' multi-MDB asset class; co-creating and participating in scaled-up syndication instruments; engaging regulators to align prudential rules with real risk;[4] and improving and sharing data and adopting interoperable taxonomies. The private and public sectors have recently come together much more effectively in finding scalable solutions. These have now to be built upon in a systematic way. To reach the scale of financing targeted by 2035, it will be essential to tackle systemic constraints that raise the cost of capital and impede cross-border finance to EMDEs, notably the lack of adequate global financial safety nets, inadequacies in credit rating agency (CRA) methodologies and assessments, and unintended impacts of prudential regulations.

External private finance, which amounted to less than $40 billion in 2022, needs to increase more than 15-fold as the largest component of the $1.3 trillion target. This includes increasing mobilised private finance from around $25 billion in 2022 to $90–150 billion by 2035. Different parts of the system (MDBs, multilateral climate funds, donors) can play complementary roles in setting up scalable blended finance structures. As these efforts gain traction in creating private sector confidence and reducing actual and perceived risks, there will be an increase in direct private flows. Given the inherent uncertainties around both domestic and international efforts, total direct external finance could span a wide range, from $300 to $700 billion by 2035.

The upper end of the direct private climate finance range does not reflect a constraint in the potential supply of finance but rather constraints on demand, including the scope for private investment, creditworthiness, regulations affecting cross-border flows, the capacity to prepare large pipelines of bankable projects and absorptive capacity. The lower end of the range reflects limited progress in enhancing the enabling environment for direct private climate finance.

[4] There is evidence, e.g. from the GEMS database, of a major discrepancy between perceived risk and real risk, with the former being substantially larger in EMDEs.

Multilateral climate finance

MDBs and the VCEFs play a central role by helping countries to unlock investments for transformative change, provide low-cost and long-term finance, and catalyse private finance at scale. MDBs need to act as agents of system transformation in each of these areas through much stronger and bolder implementation of the 'better, bigger and more effective' Roadmap for MDB Reform, set out and agreed by the G20 in 2024. The larger development finance system harnessed through the International Development Finance Club (IDFC) and Finance in Common System (FiCS) has a key role to play in mobilising the whole ecosystem for transformative change.

Multilateral development banks (MDBs)

MDBs have a central role in the DFI system. They need to become much more proactive agents in supporting the investment push that is needed over the coming two decades, including through supporting countries to develop country platforms. They need to play a much more effective role in catalysing private finance, building on important steps they have taken over the past three years. They need to become a bulwark for affordable, long-term, predictable finance. Their concessional windows, especially the World Bank International Development Association's (IDA), are vital to meeting the needs of low-income and climate-vulnerable countries. Their regular windows provide below-market financing for most EMDEs and are therefore the most important source for long-term, low-cost finance that can be used to finance investments that will not attract suitable private finance – such as many types of public infrastructure, and investments in adaptation, resilience and natural capital.

MDB concessional finance is projected to more than double from $20 billion in 2022 to $50–75 billion by 2035 based on the commitment of donors and the ability of IDA to generate internal resources. MDB financing from their market-based windows has the greatest potential for a substantial increase. In line with the findings and recommendations of the G20 Independent Expert Group under India's 2023 presidency, financing from the market-based windows for climate action could triple or quadruple from $60 billion in 2022 to $160–240 billion by 2035. To achieve this expansion, MDBs would need additional resources from a further push on the implementation of the Capital Adequacy Framework, from hybrid capital and guarantees, and from new infusions of capital.

Recent assessments show that MDBs have substantial room to expand lending through further recalibration of risk. There is also considerable potential to attract more hybrid capital and portfolio guarantees. This can help MDBs ramp up their financing commitments for long-term transformation. Nevertheless, reaching the tripling target by 2035 will require well-timed capital increases amounting in aggregate to a minimum of $60 billion across the system.

Finally, MDBs have been pursuing institutional and collective efforts to enhance effectiveness and impact, including through a growing set of initiatives and platforms. Nevertheless, there is a long list of detailed issues on which MDBs can work better together. In climate and nature, where MDBs collectively are prime drivers of change, there is more scope for strategies to be identified and outcomes to be measured on a system-wide basis. In a period where flows from developed countries have been cut back, the multiplier and leverage capabilities of the MDBs have become even more important.

Enhancing the contribution of IDFC and FiCS

The Seville Commitment *[Compromiso de Sevilla]*[5] consolidated public development banks (PDBs) as a core pillar of the international financial architecture, with FiCS serving as the global platform convening the 530-plus PDBs worldwide. Within this system, the IDFC, with its 27 members representing more than $4 trillion in assets and $200 billion of annual climate commitments, is the largest provider of public development and climate finance and a key driver of systemic alignment.

IDFC and FiCS have embarked on a set of strategic initiatives that can make an important contribution to the Baku to Belém Roadmap. They have launched a major effort to scale up country platforms as operational hubs. They have launched a Global Guarantee Platform with the Multilateral Investment Guarantee Agency (MIGA) that will double the number of PDBs accessing capital markets and catalyse private finance. They have launched the Currency Risk Management and Resilience initiative with TCX (the Currency Exchange Fund), which is expected to deliver up to $2 billion in local-currency lending. They are fast-tracking technical assistance (TA) and project preparation through a TA workstream and catalogue. And, very importantly, they have launched a Transformational Finance for Climate Group as part of the Making Finance Work for Climate Initiative, which aims to bring together a broad coalition of PDBs, climate funds and private institutions around a common approach to fostering change with a focus on metrics and impact.

IDFC and FiCS can build on these initiatives to make an important contribution in scaling up climate finance and making it more effective in support of the Roadmap. Specifically, they can help:

- **Strengthen the recognition and role of national and sub-national development banks** by harnessing the collective voice and commitment of PDBs, climate funds and private financial institutions to develop a shared approach to the fostering of change in climate finance, addressing systemic barriers and leveraging catalytic opportunities, and shifting from volume-based metrics to impact-based accountability.
- **Support the scale-up of country platforms** as operational hubs through the approach set out in the Global Financing Playbook.
- **Scale up private capital mobilisation** through expanded use of guarantees and blended instruments, including by using the Global Guarantee Platform with MIGA; standardise impact measurement to strengthen investor confidence; help foster private sector engagement in nationally led country platforms; and help improve the management of currency risks, including through the Currency Risk Management and Resilience Initiative co-led by TCX and FiCS.
- **Improve the functioning of MDBs, DFIs, PDBs and climate funds as a system**, to accelerate pipeline development, facilitate faster co-financing, enable larger pooled transactions, and strengthen private sector partnership. Harmonised due diligence, procurement, M&E, and co-financing procedures will be central to this effort.

Vertical climate and environmental funds (VCEFs)

VCEFs such as the Green Climate Fund (GCF), Climate Investment Funds (CIF), Global Environment Facility (GEF) and Adaptation Fund bring essential concessional resources, grants and catalytic capital. Though small in size, these funds have high

[5] The Seville Commitment envisages a consolidation of the role of PDBs within the international financial architecture: Paragraph 30 acknowledges the role of national development banks in aligning finance with country-owned strategies and development priorities. Paragraph 37(i) explicitly references FiCS as the global platform fostering collaboration among multilateral, regional and national development banks.

leverage potential. VCEFs should follow through on the recommendations of the G20 IHLEG VCEF report produced during the G20 Brazilian Presidency. In particular, they should:

- **Improve access and equity,** including through further streamlining accreditation, and enhanced access for and engagement with LDCs, SIDs and vulnerable communities.
- **Strengthen country ownership** by supporting country platforms and programmatic approaches, and by building capacity and increasing reliance on nationally accredited entities.
- **Enhance collaboration among VCEFs and with the larger development finance ecosystem** through harmonisation of procedures, setting up of platforms, and utilising the comparative strengthen of the different parts of the system.
- **Mobilise finance at scale** by moving from project-by-project financing to catalytic mobilisation of larger capital flows, while making mobilisation targets explicit and linked to thematic priorities.
- **Streamline governance to make the funds more agile and coherent** through board-level reforms to speed up decision-making and avoid duplication; set implementation targets, including for project approvals and disbursements; and anchor replenishment in demonstrated efficiency, mobilisation and impact.

The NCQG decision calls to at least triple annual outflows from the operating entities of the UNFCCC Financial Mechanism by 2030. In line with this commitment, support from VCEFs is projected to increase from their current level of $3 billion in 2022 to $6–10 billion per year by 2035.

Concessional and low-cost finance

Delivering bilateral climate finance commitments

Bilateral climate finance commitments remain a central pillar of international public finance and of the NCQG. Notwithstanding the more challenging environment for official development assistance, it will be critical to uphold bilateral pledges and ensure that contributions grow in line with the NCQG goal. More effective deployment and use of bilateral climate finance is also critical. Bilateral climate finance should be principally targeted to low-income and climate-vulnerable countries, to building resilience and to natural capital. It is also essential that bilateral climate finance be used more effectively by placing a stronger focus on impact and results at the country level, protecting contributions to multilateral channels, and improving the leveraging of other pools of finance, including private capital mobilisation.

We estimate that bilateral climate finance could reach $60 to $100 billion by 2035. The lower end of the range assumes an increase of 50% relative to the 2022 level based on the current outlook. The upper end assumes an increase of 2.4 times the 2022 level by 2035, which is ambitious but potentially achievable. Bilateral climate finance should be seen as a core element in finance for progress towards the Sustainable Development Goals, and not as a 'competitor' for such finance.

South–South cooperation

South–South cooperation is emerging as a powerful channel for mobilising climate finance and investment across developing countries. Led by major emerging economies such as China, India, Brazil and South Africa, and supported by a growing ecosystem of Southern development banks and financial hubs, these flows are increasingly directed toward renewables, resilience and digital infrastructure rather than fossil fuels. Together, they could contribute an estimated $30–60 billion annually by 2035 to the $1.3 trillion

external finance target. Beyond finance, South–South partnerships are deepening technology exchange, policy learning and regional integration – offering models that are often more context-appropriate than traditional North–South assistance. Yet stronger coordination, transparency and shared safeguards are needed to unlock scale and ensure initiatives remain equitable, debt-sustainable and inclusive, delivering tangible benefits to the most climate-vulnerable communities.

Revitalising carbon markets

Carbon markets are set to play an increasingly important role within the broader climate-finance architecture, mobilising resources both domestically – through carbon pricing instruments such as taxes and emissions trading systems – and internationally, through the sale of high-integrity carbon credits. Cross-border finance primarily flows through three mechanisms: voluntary carbon markets, bilateral cooperative approaches under Article 6.2 of the Paris Agreement, and the UN-supervised Article 6.4 mechanism. Together, these channels can generate debt-free, results-based payments for mitigation in EMDEs, complementing public and concessional finance. Their scale will depend on several factors: the clarity and ambition of policy frameworks, which shape demand and carbon prices; the deployment of carbon-dioxide-removal technologies, which will influence the supply and cost of high-quality credits; and the strength of integrity and transparency standards that underpin market credibility.

Several reforms can strengthen the role and contribution of carbon markets: raising ambition on carbon pricing that meets local needs; developing high-integrity carbon credits with robust supply standards and wider access; demanding integrity with clear rules for use and claims; trusted, cross-border, digital market infrastructure; embedding equity and just transition principles; and a plurilateral push on a high-integrity carbon market coalition at COP30 (the recently announced Open Coalition on Compliance Carbon Markets). Carbon-market finance should also include finance for programmatic or large-scale change and not just project-by-project. This type of carbon-market finance is more easily integrated into overall action for sustainable development.

Drawing on projections from a range of market analyses and institutions, the potential value of cross-border carbon-market finance to EMDEs (other than China) could reach $30–140 billion per year by 2035, provided ongoing reforms deliver a high-integrity and scalable global regime.

New and innovative sources of concessional finance

There is a need to tap new and innovative sources of concessional and low-cost finance given the growing investment requirements for adaptation and resilience, loss and damage, and natural capital, particularly in low-income and climate-vulnerable countries. To date, these sources amount to only $6 billion and would need to increase to around $160 billion by 2035.

Tapping the potential of special drawing rights (SDRs)

SDRs continue to provide a potential source for mobilising climate finance, especially for poor and climate-vulnerable countries. To date, $107 billion has been rechannelled through IMF facilities. A further avenue, of great potential in leverage terms, is to rechannel SDRs through the MDBs, but this has not yet come to fruition. A concerted push is needed by major countries to overcome the obstacles that are impeding their contribution to the recycling of SDRs, including through MDBs.

Three additional reforms should be pursued to enhance the potential contribution from SDRs: the IMF should work with central banks to modernise reserve-asset rules, lowering the liquidity requirements that currently reduce lending capacity; G20 members

and SDR holders should expand rechannelling options to MDBs, providing new hybrid capital instruments to increase concessional lending; and the G20 and IMF should begin discussions on a new SDR issuance to prepare for future systemic shocks, including climate-related ones.

We assess that it may be possible to mobilise $5–20 billion per year in SDR resources by 2035. The range of potential contributions from SDRs reflects the potential to expand the voluntary rechannelling of unused SDRs, modernise the reserve-asset framework to unlock more affordable lending, and consider a new SDR issuance to provide liquidity during macro-critical shocks, including from climate change. The low end of the range reflects a constrained use of SDRs allocated to recycling. The upper end reflects higher levels of SDR recycling and an additional issuance by 2035.

Voluntary levies

Momentum has been building to introduce 'global solidarity levies' on high-emitting sectors and highly mobile cross-border tax bases through agreement among a coalition of the willing. These levies, mostly aligned with the polluter-pays principle, could raise substantial revenues for climate action and development. Some important carbon-generating international activities have largely escaped taxation: for example, international aviation and shipping have substantial tax privileges by not paying excise duty or value added tax.

At COP28, France, Kenya and Barbados launched the Global Solidarity Levies Task Force (GSLTF), now comprising 19 members, to identify feasible options and explore potential coalitions of willing countries to lead their implementation. The Task Force has been developing and assessing a wide range of options, with aviation and shipping remaining the most promising, notwithstanding the postponement of a decision on a shipping levy by the International Maritime Organization to next year. As a first step, a Premium Flyers Solidarity Coalition was launched under the Sevilla Platform for Action, with the aim of reaching agreement on a concrete proposal by COP30.

We anticipate that it may be possible to generate $20–110 billion in new resources from voluntary levies by 2035. The high end of the range reflects the adoption and implementation of some concrete proposals supported by a sizeable coalition and a substantial share of proceeds allocated to climate finance for EMDEs. This does not include some proposals that could raise significant revenues but that do not yet have sufficient political traction, such as financial transaction taxes, wealth taxes or taxes on crypto.[6] Conversely, the low end of the range reflects the adoption of a limited set of levies supported by a small coalition and with a limited allocation of proceeds to climate finance for EMDEs (other than China).

[6] Note that these are less directly related to emissions than the maritime and aviation taxes.

Innovative blended finance

New facilities such as Brazil's Tropical Forest Forever Facility (TFFF) – announced under its COP30 Presidency – illustrate how long-term, performance-based finance can reward countries for conserving tropical forests and other globally critical ecosystems. By providing sustained and innovative funding where domestic revenues are insufficient, this model could be extended to other priority objectives, from resilience and adaptation to sustainable land and water management.

Multiplying debt swaps

Debt swaps could be a means by which to mobilise additional financing from bilateral sources and philanthropy. They convert part of a country's external debt into commitments to invest in climate or nature priorities, often through national or trust funds. Whether there is a net increase in financing will depend on whether the contributions are coming from existing envelopes or from expanding the envelope of bilateral and philanthropic contributions.

Recent examples of debt swaps from Barbados show that there is potential to widen the scope and scale of debt swaps. Efforts to establish platforms such as the Caribbean Multi-Guarantor Debt for Resilience Facility launched by the Inter-American Development Bank (IDB), Caribbean Development Bank (CDB) and Development Bank of Latin America (CAF) can enhance coordination among MDBs, governments and private sector actors to expand and streamline interventions; and foster investor confidence by strengthening standards for transparency, monitoring and evaluation. Additional financing through debt swaps could amount to $5–10 billion by 2035, depending on progress along these lines.

Private philanthropy

Philanthropy can deliver what other forms of finance cannot: fast, flexible, risk-tolerant, grant-based resources that do not add to debt burdens. This makes it especially valuable for adaptation, loss and damage, natural capital, and just transitions. It can also fill gaps in concessional finance, for instance in capacity-building and country platforms, and leverage other pools of capital.

Despite its potential, philanthropy is not yet playing the role it could in climate finance. There is potential to expand the pool of private philanthropy and enhance its effectiveness. Among the priorities to consider are: shifting portfolios towards adaptation and loss and damage; co-financing at scale with MDBs, including through the Asian Development Bank-style Innovative Finance Facility for Climate in Asia and the Pacific (IF-CAP) facility; capitalising the loss and damage fund and supporting sovereign risk transfer; and funding an early-stage financing facility for country platforms. In addition to traditional philanthropic foundations, the corporate sector can be an important potential source of concessional finance for climate action. Depending on the strength of these efforts, the contribution from private philanthropy could range from $5 to $20 billion per year.

Aligning all finance with sustainability and improving the international regulatory framework

This agenda entails both the implementation of Paris Article 2.1(c)[7] and reform of the international regulatory framework.

[7] Article 2.1(c) of the Paris Agreement commits Parties to "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development." This provision broadens the scope

Delivering Article 2.1(c) requires a broad set of reforms across the international and domestic financial systems. These reforms must reduce the cost of capital for EMDEs, scale up private finance through blended structures and align regulatory frameworks with climate goals. National governments should create predictable investment environments; domestic policy frameworks must incorporate Paris-aligned outcomes into market incentives; central banks and supervisors should help embed climate risks into financial systems; and financial institutions and investors should accelerate alignment of portfolios with the Paris goals with a robust implementing framework.

Achieving the Paris Agreement goals requires not only scaling up climate finance but also reshaping the rules that govern global finance. Current international regulatory frameworks – such as prudential standards, sovereign risk assessments and credit rating methodologies – were not designed with climate change in mind. Reforming the international regulatory framework is indispensable to making all finance flows Paris-consistent and to reshape the financial architecture to mobilise capital at scale for climate action in EMDEs. Key priorities include:

- Integrating climate risks and climate investment opportunities into prudential regulation.
- Unlocking institutional investors and reforming non-bank rules.
- Harmonising climate data, taxonomies and disclosure standards.
- Reforming credit rating methodologies to reflect climate and resilience.
- Advancing international coordination and inclusive governance.

The way ahead

The science and experience tell us that climate action is ever more urgent. So too is the need to revive global growth. The imperative to act is ever stronger.

This report argues that notwithstanding the immediate difficulties, we are at a moment of great opportunity. Technology has leapt forward and continues to do so. It is now time to accelerate implementation of the agenda we have set out. A concerted and sustained investment push centred on the clean energy transition, adaptation and resilience, and nature is the only way to meet global climate and biodiversity goals: and it can also unlock strong, sustainable, inclusive and resilient growth – the growth story of the 21st century.

We finish with the following key priorities for decision-makers:

- A strategic and managed transition, with engagement and coordination by Finance Ministers to drive the transformation. Achieving a successful transition requires a purposeful, whole-economy approach underpinned by strong leadership from the top of government.
- Country-led strategies as the foundation. National investment strategies and plans for transformative change must form the bedrock of action, with country platforms serving as a key instrument to give confidence to investors, and to align finance, policy and implementation.

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of climate finance beyond targeted support, emphasising the alignment of all public and private financial flows – domestic and international – with climate objectives. It thus complements Articles 2.1(a) and (b), which focus on temperature and adaptation goals, by addressing the systemic transformation of the global financial system needed to achieve them.

- **Tackling debt and strengthening domestic foundations.** Managing and reducing the burden of debt and high servicing costs, while building robust systems for domestic resource mobilisation, is essential to create fiscal space and sustain investment.
- **A development finance system that acts in a unified and coherent way.** MDBs, DFIs, VCEFs and NDBs must work together as a coherent system to support country platforms, accelerate project origination, expand long-term affordable finance, and catalyse private investment.
- **Scaling up private investment and finance.** Mobilising private capital at scale is both a necessity and an opportunity. New partnerships and innovative financial solutions are emerging, and we are seeing strong entrepreneurship from the private sector. The task now is to make the public–private collaboration systematic and predictable.
- **Reinvigorating official development finance and South–South cooperation.** Credible delivery and greater effectiveness of bilateral climate finance from advanced economies remain vital, alongside the growing potential of South–South cooperation as a complementary source of finance and knowledge.
- **Innovative and predictable concessional finance.** Achieving adequate scale will require new and innovative sources, including carbon markets, SDRs, voluntary levies, expanding and leveraging philanthropy, and innovative blended finance initiatives such as the Tropical Forest Forever Facility. This is particularly important with adaptation, resilience and nature rising up the agenda.
- **Collaboration and shared purpose.** Delivering on this agenda demands a spirit of collaboration across institutions, coalitions and regional initiatives.

The *Baku to Belém Roadmap to 1.3T* prepared by the Presidents of COP29 and COP30, supported by the Circle of Finance Ministers' report, this report and other inputs such as the Circle of Economists, provides a shared and coherent vision, the agenda and the implementation strategy. Over the past few years, a well-defined institutional architecture has emerged to support delivery and breakthroughs. This includes the main international processes such as the COP, G20 and UN General Assembly, engagement by all the key international institutions including the World Bank, IMF and OECD, and a growing and mutually supportive ecosystem of coalitions and platforms, including the Circle of Finance Ministers, the Coalition of Finance Ministers for Climate Action, the Network for Greening the Financial System (NGFS), the Paris Pact for People and Planet, the Bridgetown Initiative and the V20.

The private sector is increasingly a driving force behind this agenda through collaborative initiatives such as GFANZ and the Global Investors for Sustainable Development Alliance, while civil society and think tanks are actively advancing shared priorities including the clean energy transition, adaptation and resilience, and natural capital. Together, these developments provide the foundation for concerted, coordinated and effective action. The Roadmap offers a strong basis for integrating these efforts into a coherent and actionable framework. It charts a way forward.

Now more than ever the world needs the spirit of collaboration and implementation that is so well conveyed by the word *mutirão*, which the COP30 President has used to describe the theme for the summit in Belém.

1. Introduction

Prepared by the Independent High-Level Expert Group on Climate Finance (IHLEG) at the request of the COP29 and COP30 Presidencies, this report provides an analytical foundation for the *Baku to Belém Roadmap to 1.3T*. These flows are essential to achieving the goals of the Paris Agreement and driving sustainable, resilient and inclusive growth. The IHLEG has been privileged to work closely with the COP30 Presidency and has benefitted enormously from engagement with the Circle of Finance Ministers and their work.

Three recent outcomes shape the global framework. At COP29, Parties agreed the New Collective Quantified Goal (NCQG), a commitment from developed countries to contribute US$300 billion[8] annually for developing countries. A broader goal was also set to reach at least $1.3 trillion per year by 2035. To guide delivery, COP29 adopted the Baku to Belém Roadmap, a structured bridge to COP30. In parallel, the COP30 Action Agenda, launched by Brazil, sets out six action areas and 30 objectives – from energy and industry to food systems, cities and social development – serving as 'super-leverage points' to accelerate breakthroughs such as tripling renewable energy capacity, halting deforestation and strengthening resilience.

The case for decisive action is clear: investing in development in ways that take careful account of climate and nature unlocks low-carbon and inclusive prosperity; delay drives escalating risks and costs; and accelerated action is an effective and attractive growth strategy, generating jobs, productivity and resilience. Recent international rulings, such as the International Court of Justice's *Obligations of States in Respect of Climate Change* advisory opinion, underline that protecting the climate and environment is not optional but a duty to uphold human rights. At the same time, tackling climate change and nature loss is one of the greatest economic opportunities of our era. It requires a new vision of transformation that goes beyond reducing carbon to building economies that are low-carbon, nature-positive and inclusive.

The chapters that follow examine: the scale of investment needs, the financing pathways to meet them, the reforms required in financial systems, and the priorities for collective action from all sources of finance to turn commitments into delivery.

1.1. Climate finance at a crossroads: a historic investment imperative and opportunity

The world faces an unprecedented investment challenge – and a historic opportunity – to drive sustainable and inclusive growth, build resilience, protect nature and meet climate goals. This opportunity arises from the large and well-documented payoffs of climate investments across multiple fronts. The greatest potential lies in accelerating the clean energy transition, where dramatic cost reductions and rapid technological advances – particularly in solar, wind and energy storage – have made renewables the cheapest source of new power in most regions. Investments in adaptation and resilience also deliver consistently high economic returns, with every dollar yielding at least $10 in benefits (Brandon et al., 2025). Equally, protecting and restoring natural capital generates very large direct and spillover gains: safeguarding ecosystems, stabilising the climate, and boosting productivity and growth in sectors such as agriculture, fisheries and water. Taken together, these opportunities demonstrate that investing in climate action is not only vital

[8] All figures stated in $ in the report are in US dollars unless stated otherwise.

for meeting global climate goals, but also one of the most effective strategies for driving long-term prosperity, resilience and inclusive development.

This transformation embodies what Stern (2025) describes as the new growth story of the 21st century: a model of development that is sustainable, resilient and inclusive, powered by rapid technological innovation, large-scale investment and systemic change across energy, transport, urban, land-use and industrial systems. Far from being a drag on growth, climate action is now the most dynamic driver of productivity, innovation and job creation – offering emerging markets and developing economies (EMDEs) a chance to leapfrog outdated, high-carbon models and build competitive, diversified economies. By investing boldly in this transformation, countries can generate growth that is not only faster, but fairer and more secure against the risks of climate and ecological instability.

EMDEs are at the heart of both the investment opportunity and the global effort to deliver on climate and nature goals. Seizing these opportunities will require a major investment push over the next two decades. Altogether, global climate investments must reach around $6.5 trillion annually by 2030, rising to $7.5 trillion by 2035. EMDEs (other than China) – in which potential future emissions growth is the greatest and vulnerability to climate impacts most acute – will account for roughly half of this increase, requiring an annual investment flow of $3.1–3.5 trillion by 2035. This investment in EMDEs other than China is critical to generate the sustainable economic development and growth required to meet the goals of the Paris Agreement and to advance the Sustainable Development Goals.

Meeting this challenge demands decisive action – not only overcoming hesitation, but moving with conviction to scale up investment and ensure that finance is accessible and affordable. Climate investment must be treated not as a cost to defer, but as the most urgent and high-return growth opportunity of our time. Yet too often, policy and financial decision-makers still cast climate action as a fiscal and financial burden, rather than recognising its role as a driver of resilience, competitiveness and prosperity. The evidence is clear: delaying investment will only magnify the costs of inaction, through escalating damages, stranded assets and missed opportunities for jobs and growth.

What is needed now are clear policy direction and strategic investment choices – shifting rapidly from outdated, polluting, high-carbon assets to climate-resilient, high-return investments in clean energy, sustainable land and food systems, resilient infrastructure, restored natural ecosystems, and adaptive social systems to ensure a just transition. Unlocking this transformation will require a major strengthening of domestic and institutional foundations to prepare and absorb capital, coupled with international reforms to lower the cost of finance and expand access. By tackling these barriers head-on, EMDEs and the international community can mobilise the scale and quality of finance required – and capture the historic opportunity to deliver growth, resilience and sustainable development together.

Global climate finance has doubled in six years, reaching $1.9 trillion in 2023 according to the Climate Policy Initiative (Naran et al., 2025), but this remains less than a third of the $6.3–6.7 trillion that we estimate is needed annually by 2030. It is crucial to recognise the importance of increasing flows now rather than focusing only on a flow of finance 10 years from now. Delay is dangerous. The bulk of past flows have been concentrated in advanced economies and China, while EMDEs other than China have received only a small share despite substantial need. The gap between actual spending and what is needed is particularly large in the case of adaptation to climate impacts.

The cost of inaction dwarfs the investment requirements needed to accelerate climate action: weakly managed climate change could cut global GDP by up to 30% by 2100

under a 3°C scenario (NGFS, 2024a). In fact, this likely understates the risks as tipping points and dangerous dynamics could reverse growth and development and cause the migration of hundreds of millions of people. Decisive investment could unlock millions of jobs, reduce poverty and set EMDEs on a path to long-term prosperity. The choice is clear – redirect and scale up investment now, or face escalating damage, an unstable world and lost opportunity.

The conditions for a big investment push have been made more challenging by the legacy impacts of the COVID-19 crisis and its aftermath on the debt and fiscal circumstances of developing countries, by new headwinds and uncertainties in the global economy, by immediate cutbacks and a more uncertain outlook in official development assistance, and by hesitation on the part of some major financial institutions to embrace net zero strategies. Nevertheless, the Baku to Belém Roadmap provides an important avenue for most of the world and a wide spectrum of stakeholders to come together purposefully in finding the solutions that can deliver on the Paris Agreement and seize the opportunities from climate action.

1.2. From missed promises to the $1.3 trillion target

The $100 billion climate finance goal, pledged in 2009, was met in 2022 – but with persistent shortcomings in access to and quality of finance, and in accountability for how funds are reported, delivered and used. In 2022, just 28% of developed countries' public climate finance came as grants, and mobilised private flows remained modest at $21.9 billion (OECD, 2024).

COP29 reset the ambition on climate finance. Parties adopted the *Baku to Belém Roadmap to 1.3T* and a New Collective Quantified Goal (NCQG) of at least **$300 billion in public finance** annually by 2035, with developed countries taking the lead. Unlike the $100 billion goal, the NCQG includes contributions from South–South cooperation – finance from developing countries to other developing countries – and counts the full volume of multilateral development bank (MDB) finance, rather than only the portion attributed to developed countries.

The $1.3 trillion target recognises that a much higher volume of external finance than the NCQG would be necessary to meet the investment requirements. Beyond the NCQG's public finance floor, much higher volumes of private finance would be critical and indeed can be mobilised given the investment opportunity. There is also a need for additional and innovative sources of concessional finance. This $1.3 trillion and its constituent elements reflect the scale and diversity of financing needed to meet climate and development goals in EMDEs (other than China), while reaffirming that powerful responsibility for scaling up public finance that lies with developed nations. More than a great moral responsibility, this is also in their self-interest in terms of achieving a safer and more prosperous world for all.

1.3. The investment imperative and opportunity

As we argue in this report, EMDEs (other than China) will need $3.2 trillion annually in climate- and nature-related investments by 2035 – over $2.6 trillion more than in 2023. This is broken down into:

- The clean energy transition – $2.05 trillion
- Adaptation and resilience – $400 billion
- Coping with loss and damage – $350 billion
- Natural capital – $350 billion
- A just transition – $50 billion.

While these figures represent a major step up, they should not be seen simply as additional costs. The required investment will later increase productivity and growth and will generate substantial savings by reducing dependence on fossil fuels, lowering import bills, cutting harmful subsidies and avoiding stranded assets. For example, the clean energy transition could save around $500 billion annually by 2030 from reduced fossil fuel investment alone, while renewable energy additions since 2000 already saved more than $400 billion globally in 2023 (IEA, 2023; IRENA, 2025a).[9] Redirecting the $1.8 trillion spent annually on environmentally harmful explicit subsidies in fossil fuels, agriculture and fisheries and other sectors towards sustainable practices would further protect ecosystems, reduce input costs and enhance food security – achieving powerful increases in productivity and development objectives across the board (see Section 4.3).

Beyond increased productivity and direct savings that advance growth and development, climate investments avoid the much larger economic and social costs of inaction. Climate-related disasters already impose losses of hundreds of billions of dollars each year, and damages will reach many trillions annually without urgent action. Investments in health, air quality and ecosystem restoration deliver outsized gains – reducing healthcare costs, boosting productivity and creating jobs across multiple sectors.

Meeting this challenge requires matching each investment need to the right mix of finance: domestic public and private resources, external private capital, finance from the multilateral development banks (MDBs) and development finance institutions (DFIs), concessional flows and innovative instruments. Capital must be deployed in ways that reflect the risk, return and time horizon, and must be accessible and affordable for the countries and communities that need it most. For example, renewable power will likely be privately financed but much of the capital for adaptation and nature will involve a strong element of public funds.

1.4. An integrated climate finance agenda: from investment plans to upscaled delivery

Delivering the $1.3 trillion target by 2035 requires more than mobilising money – it demands a coordinated push across three priorities:

- **First, countries must act at the scale and pace necessary** to seize the investment opportunities in the green transition with the support of developmental partners.
- **Second, they must buttress the policy and institutional foundations** that unlock high-quality investments and attract and absorb capital, while tackling structural barriers such as high debt burdens and constrained fiscal space.
- **Third, the international system must mobilise finance of high quality and at scale**, improve access, and lower the cost of capital for the countries and sectors that need it most.

The IHLEG's integrated climate finance agenda reflects this structure. At its core is a decisive shift in investment and technology to drive transformative change – rapidly deploying proven solutions, scaling up emerging ones, and ensuring equitable access for EMDEs. Strong foundations are essential: country-led investment strategies and platforms to align priorities and financing; debt and fiscal reforms to unlock public resources; domestic resource mobilisation to strengthen national capacity; and just transition strategies to foster fairness and political viability.

[9] The IRENA estimate of $467 billion reflects fuel expenditures that would have occurred if the same amount of electricity had been produced by fossil plants, calculated using prevailing coal and gas prices and standard thermal efficiency assumptions.

On this foundation, external finance must be expanded on an unprecedented scale and deployed with far greater impact. The big investment push required has **three central implications:**

- **First, the only path to achieving the $1.3 trillion target is a major expansion of private finance** – but this requires a clear action agenda to connect large pools of capital with investment opportunities in EMDEs, while addressing high costs, risks and uneven quality of capital.
- **Second, development finance must be a cornerstone of the system,** both through direct financing and by catalysing much larger flows. MDBs, DFIs and other development institutions are essential to reducing risks, mobilising private investment and aligning finance with long-term development goals.
- **Third, concessional finance, though smaller in volume, is indispensable:** it supports the poorest and most climate-vulnerable countries and plays a catalytic role in unlocking other sources of capital. Expanding concessional and innovative sources will be critical – including rechannelling special drawing rights (SDRs), philanthropy, debt swaps, solidarity levies, and high-integrity carbon markets.

South–South cooperation can also play an increasingly important role. At the same time, strengthening regulatory frameworks is necessary to improve the quality, predictability and accessibility of climate finance.

This vision is anchored in justice and inclusivity, both within and between countries. At the domestic level, equity, social protection and opportunities for women, youth and vulnerable communities are not only moral imperatives but also drivers of resilience and sustainable growth. At the global level, international cooperation must ensure that poorer and more climate-vulnerable countries are not excluded from access to finance, technology or opportunities to participate in the green economy. Traditional models have systematically undervalued nature and ignored the costs of its destruction; by contrast, Indigenous knowledge demonstrates how stewardship and balance can sustain both people and the planet. Aligning climate action, nature protection and inclusion – across societies and borders – is therefore the surest path to unlocking new sources of productivity and long-term prosperity.

Taken together, these measures form a coherent roadmap from ambition to delivery – one that aligns investment, policy reform and finance flows in a mutually reinforcing cycle, enabling EMDEs to seize the growth opportunities of the green transition while building resilience and protecting the planet. Mobilising the investment and its finance will not be easy. But the alternative, failing to deliver on the Paris Agreement, would be much more difficult.

Now more than ever, the world needs the spirit of collaboration and implementation that is so well conveyed by the word *mutirão*, which the COP30 President has used to describe the theme for the summit in Belém.

2. Investment and technology as drivers of transformative change

The starting point is agreeing the priorities for investment: finance matters only insofar as it enables and scales up those priorities and drives changes in the real economy. Clean energy, adaptation and resilience, loss and damage, natural capital and the just transition each require a distinct mix of public, private, domestic and international finance, which can only be designed once the scale and structure of need are clear.

Technology and robust supply chains are equally decisive, since even abundant capital cannot deliver transformation if affordable and resilient solutions remain concentrated in a few economies.

This chapter therefore first sets out the core investment priorities, before turning to how technology and supply chains can ensure they are realised at scale, inclusively, and with lasting impact.

2.1. Investment priorities

Investment growth rates in EMDEs has been declining since the mid-2010s, continuing a trend that began well before the COVID-19 pandemic. After averaging almost 10% per year in the 2000s, investment growth in EMDEs fell to around 5% in 2010–24, with both public and private investment weakening amid rising debt, tighter financial conditions and global uncertainty (Adarov, 2025). This slowdown has eroded the foundations of growth in human, physical, social and natural capital, leaving many countries less able to seize technological opportunities or withstand intensifying climate and geopolitical shocks. Fiscal strategies focused narrowly on debt consolidation risk reinforcing these pressures by constraining the fiscal space required for productive investment in climate, nature and development. One major consequence has been that progress towards many of the Sustainable Development Goals has been deeply inadequate. The latest assessment by the United Nations concluded that progress has been insufficient on just under two-thirds of the targets for 2030 that accompany the Goals (UN, 2025). One person in 12 still experience hunger, and billions lack access to safe drinking water, sanitation and hygiene. Growing impacts from climate change, such as more intense and frequent extreme weather events, are also hampering progress towards the Goals.

What is needed instead is a major investment push – combining short-term fiscal measures to support growth and employment with sustained structural investment to drive inclusive, sustainable and resilient development over the next two decades (Adarov, 2025; Bhattacharya et al., 2025). For EMDEs, this requires scaling up public and private investment to levels not seen before, underpinned by reforms that expand fiscal space through boosting growth and domestic revenue mobilisation and improved investment efficiency, while international cooperation, concessional finance and private capital mobilisation play a catalytic role. The central question is therefore not only *how much* to invest, but *where* and *how* to direct investment to maximise sustainable growth and resilience outcomes.

What matters is not just the volume of investment, but its allocation: into sectors that can simultaneously meet rising demand for energy, food, housing and services; create industries and decent jobs; and build resilience to escalating climate risks. **Five broad areas define this agenda**: the clean energy transition, adaptation and resilience, loss and damage, natural capital, and the just transition. Each represents a distinct investment priority with its own financing needs and policy challenges, yet they are deeply

interconnected – investments in one area shape risks and opportunities in the others. **Cities** are a key thread that runs through them all as centres of population, infrastructure and emissions. Urban choices on transport, housing, services and planning will determine whether these investment priorities translate into inclusive, resilient and low-carbon growth. These climate investments are a core part of investments to progress towards the SDGs.

The following subsections outline the opportunity, the challenge and the policy and financing priorities in each area. Together, they provide a framework for how upscaled and well-directed investment can drive structural transformation in EMDEs while ensuring fairness, equity and sustainability.

The clean energy transition

The opportunity

The clean energy transition is both a climate imperative and the foundation of economic transformation for EMDEs. For these regions, scaling up clean energy means cheaper and more secure power, jobs and industrial growth, and major health and fiscal benefits. As the UN Secretary-General has highlighted, there is now an unprecedented moment of opportunity to "supercharge the new energy era". Sharp cost declines, expanding manufacturing capacity and record deployment have made renewables the cheapest, fastest and most secure path to development in EMDEs if international finance and policy support can be mobilised at scale (UN, 2025a).

Key opportunities are emerging on several fronts:

- **Record-breaking cost-competitiveness:** renewables are now cheaper than fossil fuels in almost every region. In 2024, 91% of new renewables projects were cheaper than the lowest-cost fossil alternatives (IRENA, 2025a). Battery costs have fallen 93% since 2010, enabling reliable clean power systems (IRENA, 2025a). The 'solar revolution' has seen costs for solar PV fall by nearly 90% since 2010 and capacity grow more than tenfold, giving EMDEs a natural comparative advantage as falling costs align with abundant solar potential (IRENA, 2025a).
- **Global momentum and proof of scale: g**lobal renewable capacity grew by a record 582 GW in 2024, accounting for 91% of all new power additions – a third consecutive record year (IRENA, 2025b). Countries like China – which installed more renewable capacity in 2024 than the rest of the world combined – demonstrate what is possible when policy and finance align. Nowhere has this transformation been more dramatic than in solar power, which accounted for over three-quarters of renewable energy additions in 2024 with around 450 GW added that year alone, making solar the largest source of new electricity generation worldwide (IRENA, 2025b). Leaders in EMDEs such as India, Brazil, Morocco and Pakistan are showing how quickly progress can accelerate when the conditions are right (Ember, 2025a; IEA, 2025; IRENA, 2025c).
- **Transformative social and economic impacts:** clean energy delivers immediate and tangible benefits for people and economies. It reduces import bills, cuts pollution and improves health – particularly for women and children, who are most affected by polluting fuels. Expanding access to clean power also drives inclusive growth and energy security, reducing household expenditure and exposure to volatile fossil prices. At the same time, it is a major source of job creation: under IRENA's 1.5°C Scenario, renewable energy employment could rise to around 30 million jobs by 2030 and 40 million by 2050 (IRENA, 2024), supporting new livelihoods across both urban and rural economies.

- **Vast untapped renewable potential in EMDE:** EMDEs hold most of the global renewable resources – African countries alone have 60% of global solar potential (IEA, 2022).
- **Economy-wide and industrial spillover effects:** clean energy investment catalyses broader structural transformation beyond the power sector. It accelerates industrial opportunities in green hydrogen, clean manufacturing and battery production, while supporting the electrification of transport, buildings and industry. These investments stimulate local value chains, strengthen technological capabilities and enhance resilience by reducing exposure to global fossil fuel shocks. By powering growth across multiple sectors, clean energy can become the backbone of a more competitive, diversified and climate-resilient development model for EMDEs.

The challenge

Clean energy investment is expanding globally, but most EMDEs remain far from realising their potential. Investment flows remain heavily skewed towards advanced economies and China, leaving EMDEs – which have captured less than one in five dollars of global clean energy investment since the Paris Agreement (UN, 2025a) – severely underfunded on this front, despite having abundant renewable resources. The result is a widening global divide in progress on the clean energy transition: while technology costs are falling, high financing barriers, weak grids and policy uncertainty stall progress on renewables projects, and persistent fossil dependence risks locking in costly and volatile energy systems. Reversing this imbalance is essential not only for achieving global climate goals but also for driving inclusive growth and resilience.

Existing challenges include:

- **Large investment gaps:** EMDEs other than China attracted only 17% of global clean energy investment in 2024, with Africa securing just 2% (IEA, 2025). In these regions, clean energy investment needs to rise seven-fold from current levels to about $2.05 trillion annually by 2035.
- **Uneven progress across EMDEs:** only a handful of EMDEs – including India, Brazil, Morocco, Vietnam and Pakistan – are deploying renewables at scale, while progress in most other EMDEs remains limited or uneven, often constrained by financing policy and grid bottlenecks. Renewable capacity in Africa must quadruple to 300 GW by 2030 to align with the 1.5 °C pathway, and in ASEAN countries it must triple to 370 GW (IRENA et al., 2025). Current growth rates are far below these trajectories.
- **Infrastructure bottlenecks:** weak, outdated and underfunded grids block deployment. Globally, 1,650 GW of renewable projects are stuck in grid interconnection queues, with the most acute constraints in Africa and South Asia (IEA, 2025).
- **High cost of capital:** EMDEs other than China face a triple financing challenge: they are in most need of scaled-up capital flows but have limited access due to poor sovereign risk ratings, and where finance is available, it is prohibitively expensive (IRENA et al., 2025). The cost of capital for renewables in Africa and South Asia is two to three times higher than in advanced economies, undermining affordability despite low technology costs (Erdogan and Hatton, 2025).
- **Policy and institutional gaps:** while 75% of updated nationally determined contributions (NDCs) reference renewable energy, few include quantified, bankable targets or mechanisms to attract investment (IRENA et al., 2025). Weak permitting, unclear regulations and underperforming utilities slow down deployment and deter private finance. Tariffs, subsidies and procurement systems often still favour fossil fuels, perpetuating distortions.

Global commitments are clear but delivery is lagging behind the pace needed: at COP28, countries pledged to triple renewable capacity and double energy efficiency by

2030, while Sustainable Development Goal (SDG) 7 calls for universal access to "affordable and clean" energy. Meeting the tripling goal for renewable capacity would mean reaching 11.2 TW of global renewable capacity by 2030, but current national plans would deliver 7.4 TW, only about two-thirds of what is needed (IRENA et al., 2025). By 2035, EMDEs must build mostly renewable power systems supported by modern grids, storage and electrified sectors, while phasing out coal, halting new oil and gas, and halving energy intensity. Achieving universal access to clean, affordable power is both an economic and social imperative, demanding national strategies aligned with global goals, trillions in investment, and an inclusive, equitable transition that drives lasting transformation.

Investment priorities

Closing the gap demands a major redirection of capital away from fossil-fuel infrastructure and towards four strategic clean-energy priorities that can meet rising demand, cut costs and strengthen energy security, as described in Table 2.1.

Table 2.1. Four investment priority areas for clean energy investment in EMDEs

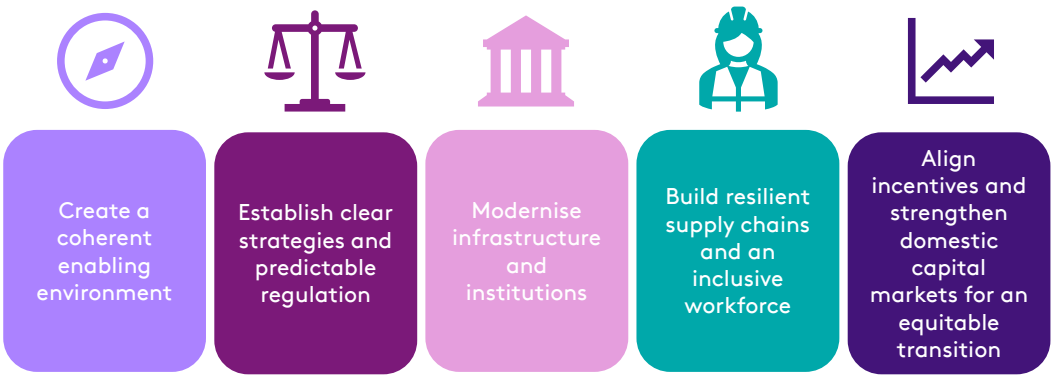
Priority area	What it means
Renewable and other low-emission power generation	Scaling up solar, wind, hydro and geothermal power is central to meeting rising demand and reducing fossil dependence. Falling costs make these technologies the cheapest option in almost every region, with strong potential for job creation and industrial development. Other low-carbon sources – such as nuclear or bioenergy – also have a role to play in diversifying energy systems and ensuring reliable, low-emission supply.
Grids and storage	Investment in transmission, distribution and flexibility must at least double to integrate variable renewables. Modernisation through digitalisation, automation and advanced storage solutions is critical to balance supply and demand and avoid stranded renewable potential.
Efficiency and electrification	Demand-side investment in buildings, transport and industry is essential to curb energy intensity while raising living standards. Opportunities include electric vehicles (EVs), efficient appliances, retrofits and stronger building codes, which together can deliver immediate savings and health benefits.
Low-emission fuels and carbon capture, usage and storage (CCUS)	Green hydrogen, sustainable fuels and targeted carbon capture have a smaller role than renewables today but are critical for decarbonising heavy industry, transport and other hard-to-abate sectors, while also opening up new industrial opportunities.

Note: Estimates on the clean energy transition are based on analysis by the International Energy Agency (IEA), adapted to the IHLEG country coverage and timeframe.

Policy foundations

Finance will not flow at the necessary scale without supportive national policies. Experience across regions shows that where clear strategies, predictable regulation and strong institutions are in place, investment rises quickly. Five policy priorities stand out – see Box 2.1.

Box 2.1. Five policy priorities for a clean energy transition in EMDEs



Create a coherent enabling environment – Governments need integrated energy transition plans that set out long-term goals, clarify the respective roles of public and private investment, and embed transition pathways in NDCs, national laws, and fiscal and industrial strategies. Cross-ministerial coordination (across energy, finance, industry and environment departments) is essential to provide certainty and avoid conflicting signals.

Establish clear strategies and predictable regulation – Investors respond to stability and clarity. Strong renewable and efficiency targets, phase-out commitments for new unabated coal, streamlined permitting and transparent offtake frameworks (e.g. auctions, power purchase agreements [PPAs] and feed-in tariffs) are critical. Examples such as India's solar auctions and Morocco's wind PPAs show how predictable frameworks unlock private capital.

Modernise infrastructure and institutions – Expanding and digitalising grids, scaling up storage and reforming utilities are prerequisites for greater renewables penetration. Integrated power planning, improved governance of state-owned utilities, and regional interconnections can reduce bottlenecks and lower costs. Successful examples include Kenya's transmission expansion, India's Green Energy Corridors and Brazil's transmission auctions.

Build resilient supply chains and an inclusive workforce – Diversifying supply chains through domestic manufacturing of solar, wind and batteries captures more value locally and reduces vulnerability. Equally, training, reskilling and inclusion policies ensure workers benefit from new energy industries and coal-dependent regions are not left behind. Kenya's solar workforce programmes and South Africa's Just Energy Transition Partnership illustrate how to combine opportunity with social protection.

Align incentives and strengthen domestic capital markets for an equitable transition – Redirecting fossil fuel subsidies (which amounted to $602 billion in low- and middle-income countries in 2023 [IISD and OECD, 2025]) towards renewables, efficiency and universal access is a top priority. At the same time, expanding domestic green and sustainability-linked bond markets, green lending facilities and supportive central bank regulation can mobilise local savings at scale. Broader 'transition finance' instruments are also vital for industry, efficiency and electrification investments that may not fit strict green taxonomies. Ensuring meaningful participation from women, men and local communities – who face differing energy costs, constraints and opportunities – helps identify real investment bottlenecks, increases uptake of new technologies, and strengthens the legitimacy of reforms.

Implications for finance

Meeting investment requirements – around $2.05 trillion annually by 2035 – will require mobilising capital far beyond what public sources can provide. Most finance will need to come from private investors but this depends on **three enabling conditions that are especially critical for the clean energy transition:**

- **Unlocking scalable pipelines of investable projects:** abundant renewable resources will not translate into deployment unless there are credible, bankable projects. For the clean energy transition, national and sectoral investment platforms, supported by project preparation facilities and regional vehicles, are vital to convert technical potential into pipelines that attract institutional and private capital at scale.
- **Strengthening domestic financial foundations and attracting institutional investors:** clean power systems require sustained long-term capital. Expanding local bond markets, green lending and securitisation mechanisms can channel domestic savings, while clearer pathways for institutional capital – including pension and insurance funds – are essential to match the scale and duration of finance needs for the energy transition.
- **Lowering the cost of capital as the decisive priority:** energy is a capital-intensive sector, and high financing costs are the single biggest barrier to renewables in EMDEs. In many parts of Africa and South Asia, capital costs for clean energy projects are often two to three times higher than in advanced economies, making fossil fuels more competitive. Scaling up guarantees, risk-sharing instruments and currency hedging through MDBs and DFIs can sharply reduce the weighted average cost of capital, tipping the balance towards clean energy and unlocking private finance flows.

Adaptation and resilience

This section benefitted from close collaboration with the UNEP *Adaptation Gap Report* team led by Paul Watkiss, who leads UNEP's work on adaptation financing needs (UNEP, 2025), and with Systemiq's team that prepared the recent report *Returns on Resilience: Investing in Adaptation to Drive Prosperity, Growth and Competitiveness (Systemiq, 2025)*, led by Guido Schmidt-Traub and Julia Turner. Their input and analysis were instrumental in shaping the assessment of adaptation investment needs, financing gaps and strategic priorities for building resilience in EMDEs.

The opportunity

Climate resilience is as critical to development as clean energy. For EMDEs, escalating shocks threaten lives, livelihoods and macroeconomic stability, with disasters causing significant setbacks to development progress. Adaptation is both an economic and social imperative: it can reduce devastating losses and delivers strong development dividends. Yet a large financing gap persists, and resources must reach the most vulnerable to ensure durable, inclusive resilience. Well-directed investments can generate high returns – protecting assets, strengthening fiscal sustainability and improving wellbeing – **with opportunities including:**

- **High economic returns:** resilient infrastructure yields a median 4:1 benefit–cost ratio; every $1 invested in adaptation generates at least $10 in benefits, with average economic internal rates of returns (EIRR) of 25% (Brandon et al., 2025; Rising et al., 2025). In low- and lower-middle income countries, economic benefit–cost ratios could reach 5:1 by 2050 (Rising et al., 2025).
- **Avoided losses and lives saved:** early investment in adaptation prevents large economic and human losses. Bangladesh has reduced cyclone-related mortality 100-fold in four decades through shelters, early warning systems and community preparedness (GCA,

2019). India's Heat Action Plans now protect millions in more than 30 cities, preventing deaths and lost productivity, and reducing health costs (GCA, 2019).

- **Macroeconomic and fiscal stability:** stronger resilience limits the severity of impacts on sovereign creditworthiness, protects tax bases, and reduces sovereign creditworthiness risk. Greater climate resilience improves credit ratings and borrowing terms (Cevik and Jalles, 2020; Gomez-Gonzales et al., 2025).
- **Social, environmental and economic benefits:** adaptation delivers multiple dividends – improving health, restoring ecosystems, creating jobs and reducing emissions while enhancing productivity and service reliability. Resilience investments could generate up to 280 million jobs in EMDEs over the next decade (Systemiq, 2025), while green roofs and shaded corridors reduce heat and energy demand, and mangroves and wetlands protect coasts, store carbon and sustain livelihoods. Emerging evidence also highlights growing health-related adaptation needs, with investments in 'climate services for health' – linking climate data to disease surveillance, early warning and health-system planning – shown to strengthen resilience and reduce mortality and economic losses (WRI, 2025).
- **Equity driving stronger resilience and development gains:** addressing the different constraints faced by women and men in accessing information, finance, land and technologies can unlock large efficiency gains. Studies show that closing these gaps could boost productivity, reduce food insecurity for 45 million people and improve resource management (Deininger et al., 2023; Mane et al., 2025). Moreover, adaptation finance directed to locally targeted interventions can reduce the impact of climate damages by 38–72% (Rexer and Sharma, 2024). Redirecting more resources to women's organisations, local communities and Indigenous Peoples can ensure investments are effective and durable.

The challenge

Adaptation remains highly mismatched with escalating climate risks in EMDEs. Despite mounting evidence that well-designed adaptation measures deliver high economic returns – reducing losses, creating jobs and strengthening fiscal resilience – adaptation is still largely viewed as public expenditure rather than a productive investment. The latest UNEP *Adaptation Gap Report* (2025) confirms that adaptation progress remains far too slow and finance flows far below need, with the funding gap widening as climate impacts intensify (UNEP, 2025). Without urgent action, intensifying hazards and slow-onset threats will collide with gaps in finance, institutions and delivery, leaving countries dangerously exposed. Adaptation is about risk reduction before impacts occur; without it, residual and irreversible damages – addressed through loss and damage mechanisms – will grow exponentially. Inaction will drive rising vulnerability, weaken fiscal stability and deepen inequality, with climate impacts translating into mounting human, economic and social costs:

- **Escalating hazards without matching resilience:** climate impacts are intensifying faster than resilience systems are being put in place. Over 90% of disaster-related deaths between 1970 and 2021 occurred in developing countries (WMO, 2023), and the least developed countries are now about 10% poorer than they would have been without climate change (Rising et al., 2025; Systemiq, 2025). Without stronger resilience, chronic physical risks such as shifting rainfall and sea-level rise could reduce global GDP by up to 15% by 2050 under current policies (NGFS, 2024b); if acute shocks and nature degradation are included, the losses are far greater (Systemiq, 2025).
- **Rising macro-financial fragility:** climate vulnerability already raises borrowing costs – sovereign credit spreads increase by up to 23% per unit of vulnerability (Gomez-Gonzalez et al., 2025) – and credit ratings are projected to fall by about one notch on

average by 2050 (Rising et al., 2025). Governments face twin fiscal pressures: surging expenditures for disaster response and reconstruction, and falling revenues from disrupted economic activity. In low-income countries, these dynamics risk a vicious cycle of debt and disaster, where higher borrowing costs further constrain adaptation spending.

- **Declining productivity and economic potential:** higher temperatures are already reducing labour productivity, particularly in economies in hotter countries that are reliant on outdoor or weather-exposed work (Rising et al., 2025). These hidden costs weaken competitiveness and erode the foundations of inclusive growth.
- **Growing burden on households:** households are forced to absorb the rising costs of climate impacts, driving poverty and exclusion. In Bangladesh, for example, rural families already spend $2 billion annually out of their own pockets on disaster recovery – double the government's spending – with female-headed households devoting up to 30% of expenditure (Eskander et al., 2022; 2023).
- **Deepening inequity and exclusion:** poor and marginalised groups, particularly women, Indigenous Peoples and local communities, remain most exposed yet least supported. Inaction risks entrenching poverty, widening social divides and undermining trust in climate policy.
- **Runaway costs from underestimated needs:** current estimates of the costs of adaptation understate true need and fail to capture emerging risks and cascading impacts. Without urgent investment in innovation and anticipatory measures, future costs will rise far higher and overwhelm already scarce resources.

Structural barriers in finance, policy, and delivery systems explain why adaptation is not being scaled up, despite its urgency and the high returns from doing so. EMDEs other than China will need around $400 billion annually for adaptation by 2035, yet current commitments are only a fraction of this – even if developed countries double adaptation finance to $40 billion per year by 2025 (in line with the Glasgow Climate Pact), the gap will remain vast. Finance flows are also fragmented and inequitable: less than 17% of international public adaptation finance reaches local actors directly, and only 4% of adaptation official development assistance (ODA) in 2022 had gender equality as a principal objective (UNEP, 2023; Cichocka et al., 2024), slowing down delivery and bypassing those most exposed. Measurement and investment challenges add further constraints, since adaptation lacks a standardised metric and its benefits – often public goods – are difficult to monetise, limiting private returns and slowing down capital mobilisation. Finally, delivery systems are weak: adaptation remains too often reactive and project-based, with limited institutional capacity for planning, budgeting and pipeline preparation, keeping responses piecemeal rather than programmatic.

The global adaptation agenda is advancing but ambition lags behind. The Global Goal on Adaptation (GGA), established under the Paris Agreement to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change, was advanced at COP28 through the UAE Framework for Global Climate Resilience and a two-year UAE–Belém work programme to define indicators by 2026. More countries are also preparing National Adaptation Plans (NAPs), and recent calls from the CVF Leaders' Declaration (V20, 2025a) and the 15th V20 Ministerial Communiqué (V20, 2025b) have urged that adaptation finance be scaled up rapidly, mainstreamed in MDB operations, and channelled directly to climate-vulnerable countries. Without predictable, scaled-up finance, the GGA risks remaining aspirational, with disagreements persisting on indicators,

reporting and alignment with Article 2.1(c) of the Paris Agreement.[10] The real test, ahead of COP30 in Belém, is whether the GGA can drive investment and accountability. By 2035, resilience must be fully embedded in growth and development strategies, with climate-proofed infrastructure, risk-layered sovereign finance and locally led initiatives that reach the most vulnerable: these are measures that will not only protect lives and assets but also reduce sovereign risk and enable more stable, inclusive growth.

Investment priorities

Adaptation requires a systemic approach, combining hard infrastructure with soft measures that build institutional capacity and social resilience. For EMDEs, scaling up investment in eight interlinked areas is essential to reduce risk, unlock growth and protect the most vulnerable – see Table 2.2.

Table 2.2. Eight investment priority areas for adaptation in EMDEs

Priority area	What it means
Agriculture, water and land management	Climate-smart agriculture, resilient water management and integrated land management are critical to secure food and water supplies. Investments in drought-resistant seeds, efficient irrigation and watershed restoration can stabilise rural livelihoods and strengthen value chains.
Resilient infrastructure	Climate-proofing energy, transport, water and digital systems is cost-effective if done at the design stage, avoiding lock-in of vulnerabilities. Extending resilience to schools, hospitals and housing ensures that critical social infrastructure continues to function under climate stress.
Coastal protection and management	Small island developing states (SIDs) and coastal economies face rising sea levels, storm surges and erosion. Effective strategies combine engineered defences (e.g. dykes), spatial planning and nature-based solutions such as mangrove restoration or coral reef conservation.
Disaster risk management	Early-warning systems, flood protection infrastructure and zoning deliver some of the highest benefit–cost ratios of any adaptation measure.
Protected ecosystems	Forests, wetlands and grasslands regulate water cycles, protect soil and buffer against extreme events. Scaling up ecosystem-based adaptation delivers high returns but often needs to be combined with other solutions to reduce residual risk.
Health and social protection	Resilient health systems are vital as climate-sensitive diseases rise and extreme heat intensifies. Adaptive social protection, including cash transfers and care services, shields vulnerable households from shocks and accelerates recovery.
Institutional capacity, enabling	Embedding adaptation in fiscal frameworks, technical standards and planning systems improves efficiency and accountability. Addressing the different climate risks, responsibilities and

[10] Article 2.1(c) calls on governments to "make financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development" (see Chapter 5.1).

factors, and inclusion	constraints faced by women, men and marginalised groups – such as access to information, finance, land and decision-making – helps ensure adaptation investments reach the people who implement them and therefore work in practice.
Private sector resilience	Firms, micro, small and medium-sized enterprises (MSMEs) and farmers face direct exposure to climate shocks. Supporting them to climate-proof assets, diversify supply chains and disclose risks can unlock major private investment in resilience.

Note: Estimates on adaptation and resilience were provided by the UNEP Adaptation Gap Report Finance team (UNEP, 2025) based on data from the ECONOGENESIS and ACCREU projects.

Policy foundations

Even where investment opportunities are clear, finance will not flow at scale without strong enabling conditions. National governments – especially Ministries of Finance – must integrate climate risks into economic and fiscal planning, while international partners support with finance, data and capacity. Four policy priorities stand out – see Box 2.2.

Box 2.2. Four policy priorities to scale up adaptation in EMDEs

Ensure that climate resilience is fully incorporated into fiscal and planning systems – Treat adaptation as a core economic priority, embedding it in budgets, NAPs, NDCs and debt sustainability analyses. This includes costing NAPs, linking them to national development plans and expenditure frameworks and setting measurable indicators. Climate budget tagging in countries including Rwanda and Indonesia shows how national spending can be aligned with resilience goals.

Empower locally led and inclusive delivery – Direct resources to municipalities, women's organisations and Indigenous Peoples to ensure effectiveness and legitimacy. This requires dedicated funding windows, simplified access procedures, and fiscal transfer systems tied to resilience indicators.

Strengthen national systems for adaptation investment planning – Move from fragmented projects to programmatic pipelines integrated into fiscal frameworks. Tools like climate budget tagging and the Asian Development Bank's Climate Adaptation Investment Planning Program demonstrate how NAPs can be translated into investment-ready pipelines. Country Platforms can provide a key channel for scaling up such approaches, helping countries develop resilience investment strategies and coordinate actors around nationally owned priorities, backed by strong institutional capacity and long-term planning.

Blended instruments such as resilience bonds and insurance pools can complement national systems.

Provide the incentives and enabling conditions for the private sector to scale-up – Firms have three roles: financing their own resilience, supplying adaptation goods and services, and co-financing wider systems. Policymakers can support this by providing better data on risks, resilience standards in procurement, and disclosure requirements. Blended finance and guarantees can further de-risk private participation.

Implications for finance

Adaptation finance must shift from fragmented projects to a scaled, programmatic, predictable and inclusive agenda. This requires mobilising international and domestic resources, crowding in private capital, and ensuring finance reaches the most vulnerable.

- **Deliver higher ambition levels of international public finance.** Developed countries must exceed the Glasgow Pact pledge to double adaptation finance, while improving the quality of finance. This means more grants and highly concessional resources, streamlined access, and stronger project preparation pipelines.
- **Raise the priority of adaptation in public budgets.** Domestic public finance will remain the backbone of adaptation, particularly in areas with low commercial returns such as health, social protection and disaster risk management. Ministries of Finance must integrate adaptation into recurrent spending and infrastructure planning, repurposing harmful subsidies and redirecting public investments towards resilience.
- **Expand the role of private finance.** About one-quarter of adaptation needs could be met through private investment, especially in agriculture, resilient infrastructure, and adaptation goods and services.[11] MDBs and DFIs can play a catalytic role through blended facilities, resilience credit lines and aggregation of small-scale projects into bankable portfolios. Private actors also have a leadership role to play – by stress-testing portfolios for physical climate risks, integrating resilience covenants into lending, and redirecting capital towards resilient and nature-positive assets rather than fragile or high-risk ones. Emerging instruments such as resilience-linked loans, catastrophe bonds and dedicated adaptation funds can help scale up markets while delivering both resilience outcomes and financial returns.
- **Improve tracking and measurement.** Progress on adaptation will remain difficult to scale up without robust methods to measure and report finance flows, outcomes and impact. Governments and financial institutions should strengthen adaptation tagging, establish common metrics and taxonomies, and embed results measurement frameworks into public budgets, MDB reporting and private-sector disclosure systems. Better data and classification will enable accountability, comparability and more effective targeting of resources.
- **Strengthen social protection and equity.** Adaptive cash transfers, poverty graduation programmes and investment in care infrastructure ensure finance reaches those most affected. Experience with measures such as the Philippines' cash transfer programme after Typhoon Yolanda shows how linking disaster finance with social protection accelerates recovery.
- **Harness digital systems.** Mobile money, e-vouchers and digital identification enable rapid, transparent delivery of adaptation finance to households and communities. Digital platforms also reduce transaction costs and open new opportunities for innovative financing models.

[11] This excludes investments in financing and investing in their own resilience.

Loss and damage

The opportunity

Loss and damage (L&D), the third pillar of climate action alongside mitigation and adaptation, refers to irreversible climate impacts that cannot be avoided or adapted to – ranging from lost assets and incomes to displacement, health impacts and the loss of biodiversity and cultural heritage. For EMDEs, these impacts are already eroding fiscal stability, human development and long-term growth. L&D finance is not just about compensation but about restoring stability and enabling recovery. It operates at the end of a continuum: the less we invest in mitigation and adaptation, the greater the burden of loss and damage.

When well designed, L&D systems can:

- **Accelerate recovery and protect fiscal space.** Pre-arranged finance, sovereign risk-pooling and insurance can release liquidity within days of a shock, reducing reliance on emergency appeals and preventing fiscal crises that follow delayed recovery.
- **Enable 'build back better' reconstruction.** Recovery that integrates resilience and equity avoids repeated cycles of destruction and repair, strengthens public balance sheets and safeguards long-term development gains.
- **Advance justice and inclusion.** Directing L&D finance through community, women's and Indigenous organisations ensures support reaches those most affected, strengthens social cohesion, and helps address non-economic losses such as health, cultural identity and sense of place.
- **Strengthen global stability.** Predictable, rules-based L&D finance reduces political and social fragility in vulnerable states, bolsters investor confidence and underpins cooperation in the multilateral system.

The challenge

Loss and damage from climate impacts is rising far faster than the systems to manage it. EMDEs, constrained by limited fiscal space, face escalating shocks that exceed adaptation capacity and strain recovery. Under-investing in mitigation and adaptation today magnifies future losses, while degraded ecosystems erode natural buffers.

With low insurance coverage, inadequate risk-transfer mechanisms and fragmented international support, the risks of inaction are profound:

- **Irreversible human and economic damages.** When climate hazards overwhelm adaptive capacity, the consequences are severe. Between 1993 and 2022, extreme weather and climate-related events killed 765,000 people and caused $4.2 trillion in recorded damages (Adil et al., 2025). 2024 alone saw $320 billion in direct losses from natural disasters (MunichRe, 2025). When cascading and ecosystem impacts are included, total disaster costs now exceed US$2.3 trillion annually (UNDRR, 2025). These are residual impacts, beyond what adaptation could avert, and they fall hardest on countries with the least fiscal space.
- **Widening gap in protection.** Fewer than 10% of disaster losses are insured in EMDEs (compared with 45% in Europe and 56% in the US) (MunichRE, 2025). Without stronger pre-arranged finance and social protection, households and governments must absorb losses directly, fuelling debt distress and perpetuating vulnerability.
- **Persistent macroeconomic drag.** For many EMDEs, climate shocks are already eroding debt sustainability and constraining long-term growth. Disaster recovery costs and lost revenues are forcing fiscal trade-offs that crowd out investment in health, education and resilience. Countries represented by the V20 platform for most climate-vulnerable

countries would be 20% wealthier today in the absence of climate impacts (which caused losses of $525 billion from 2000 to 2019) (V20, 2022). Continued inaction risks locking climate-vulnerable economies into permanent growth losses.

- **Impacts beyond adaptation's limits.** As global warming intensifies, more impacts will exceed the scope of feasible adaptation – whether hard limits like submerging coastlines or soft limits where governance and finance fall short – leaving entire communities without viable options.
- **Cycle of fragmented, reactive responses.** Reliance on ad hoc donor appeals and short-term rebuilding will perpetuate vulnerability, ensuring repeated destruction and repair rather than resilience.
- **Deepening inequality and exclusion.** Poor and marginalised groups – especially women, Indigenous Peoples and informal workers – will bear the heaviest burdens, while non-economic losses such as cultural heritage, health and ecosystems remain under-addressed.

Global policy has laid the foundations for an L&D architecture, but finance remains far below need. After decades of debate – from Vanuatu's 1991 proposal for an international insurance and compensation mechanism for countries vulnerable to sea-level rise, to the Warsaw Mechanism in 2013 and Paris Agreement Article 8 – countries agreed at COP27 to establish a dedicated fund. The Fund for Responding to Loss and Damage (FRLD) was then operationalised at COP28 and disbursed its first $250 million in 2025. Yet pledges remain under $1 billion, far below the **$350 billion per year** EMDEs (other than China) may require by 2035; and progress is threatened by political fragility – underscored by the US withdrawal from the FRLD Board in 2025. By 2035, loss and damage finance must be fast, inclusive and reliable. Grants will remain vital but must be complemented by insurance and contingency instruments to provide rapid liquidity and resilient reconstruction. Frameworks in every EMDE should combine these tools, channel funding directly to local actors and embed equity to strengthen resilience and social cohesion.

Investment priorities

Unlike adaptation, which aims to prevent or reduce climate impacts, L&D investments respond to impacts that adaptation cannot avert. They must provide rapid relief, support recovery and enable resilient reconstruction when adaptation limits are breached. Four priorities stand out – see Table 2.3.

Table 2.3. Four investment priority areas for loss and damage in EMDEs

Priority area	What it means
Forecast-based and pre-arranged finance	Linking forecasts to pre-arranged financing enables early disbursement of support before or as disasters strike. These mechanisms bridge the gap between adaptation and L&D by containing imminent losses once impacts become inevitable. Bangladesh's anticipatory cash transfers ahead of major floods, for instance, reduced asset losses and food insecurity, showing that modest ex-ante investments can avert far greater post-disaster costs.
Rapid response and liquidity provision	Liquidity must flow within days after a disaster, not months. Regional insurance pools (e.g. CCRIF, SEADRIF) and MDB contingent credit show payouts within one to two weeks are possible. Expanding such systems moves the response from unpredictable

	donor appeals to reliable, rules-based instruments that stabilise economies immediately after shocks.
Recovery, rehabilitation and livelihood restoration	Post-disaster recovery goes beyond physical reconstruction and involves restoring essential services, rebuilding livelihoods and strengthening social protection systems. The 2022 Pakistan floods, which required $16 billion for rehabilitation and reconstruction, show how fiscal constraints can delay recovery (Ministry of Planning Development & Special Initiatives, 2022).
Resilient reconstruction and, in some cases, planned relocation	In cases where adaptation limits are exceeded, multi-year programmes must help communities rebuild safely or relocate where necessary. Fiji's 2014 relocation of Vunidogoloa village highlights both the necessity and the cost of such measures, underscoring the need for sustained grant support (Link et al., 2025).

Policy foundations

Financial mechanisms alone cannot address L&D. Governments and international partners must build the policy frameworks that make responses fast, inclusive and effective. The four central priorities are described in Box 2.3.

Box 2.3. Four policy priorities to tackle loss and damage in EMDEs

Recognise loss and damage as macro-critical – Ministries of Finance and central banks must treat climate losses as systemic financial risks. Incorporating L&D into fiscal frameworks and debt sustainability analyses allows governments to plan for recurrent shocks.

Strengthen national systems for risk assessment and reporting – Comprehensive registries of economic and non-economic losses, aligned with UNFCCC methodologies, can provide the data needed for policy design and international negotiations.

Ensure equitable and locally led delivery – Policy frameworks should reflect the different vulnerabilities and capacities of women, men and marginalised groups, and enable local leadership in design and implementation. Integrating L&D with social protection systems allows support to be scaled up rapidly and reach the households and communities most at risk.

Anchor loss and damage in international governance and technical support systems – Strong frameworks for the UNFCCC Loss and Damage Fund and Santiago Network are essential, with transparent governance, harmonised standards and demand-driven technical assistance.

Implications for finance

Addressing L&D requires a mosaic of instruments. No single tool can meet the diverse needs, which range from sudden shocks to slow-onset events. Finance must be adequate, predictable and just – ensuring resources reach those most affected without worsening debt distress.

Three priorities stand out:

- **Prioritise grants as the foundation of L&D finance.** Grants are indispensable for humanitarian relief, recovery and non-economic losses. Locally led grants, such as Scotland's support to Malawi after cyclones, demonstrate high effectiveness but remain small compared with need. Predictable, upscaled grants are essential to rebuild trust and credibility.
- **Use concessional loans, insurance and catastrophe bonds selectively and fairly.** MDB loans and insurance pools can provide liquidity but must not shift burdens onto already indebted states. Payouts must be adequate, affordable and timely, with grants covering the majority of losses.
- **Mobilise innovative sources of international finance.** New levies and taxes aligned with the 'polluter pays principle' (e.g. on aviation, shipping and fossil fuel profits) could provide predictable resources at scale. Without such mechanisms, ad hoc pledges will never match the scale of need.

Natural capital

Nature and climate are deeply interconnected: healthy ecosystems regulate carbon, water and temperature, buffer against extreme weather and sustain the foundations of food, health and livelihoods. Conversely, climate change accelerates biodiversity loss and ecosystem degradation, weakening resilience and amplifying risks to growth and stability. There is growing recognition of these interlinkages across the global policy and finance agenda, yet natural capital still receives insufficient attention and investment. Recognising and reflecting the true value of natural capital in economic and financial decision-making is essential to aligning growth, fiscal and investment strategies with sustainability.

A companion report to this analysis, *Making Natural Capital Count* (Center for Global Commons and Systemiq, 2025), sets out a roadmap for embedding natural capital into economic and financial systems and mobilising investment at scale. It focuses on how governments, firms and financial institutions can bring nature "onto the balance sheet" by integrating ecosystem value into national accounts, fiscal frameworks and corporate reporting; aligning incentives and financial instruments to reward stewardship; and building shared data and valuation infrastructure. Its conclusions, which inform this section, emphasise that the tools to value nature already exist, but they must now be systematically applied to drive investment, reduce macro-financial risks, and turn natural capital from a neglected externality into a recognised driver of climate resilience, competitiveness and long-term prosperity. This section also benefitted from input from Nicola Ranger, who leads the Earth Capital Nexus initiative at the Grantham Research Institute on Climate Change and the Environment. Her analyses and insights were instrumental in shaping the assessment of investment priorities, financing opportunities

and policy actions needed to integrate natural capital into development and financial strategies in EMDEs.

The opportunity

Nature is critical infrastructure: forests, soils, wetlands, rivers and oceans underpin every sector of the economy and provide vital services such as food, water, energy, climate regulation and coastal protection. Addressing climate change and safeguarding nature are two sides of the same challenge: driven by the same pressures and reinforcing one another, neither can succeed in isolation. Ecosystems absorb carbon, regulate rainfall and buffer against floods, storms and drought in ways that no engineered system can replicate, yet they face rapid and irreversible collapse if tipping points are crossed. Unlike a water grid, the water cycle cannot be rebuilt. Natural capital is therefore the foundation of resilient and prosperous economies, not a 'nice to have', and its protection is essential for long-term growth, stability and wellbeing.

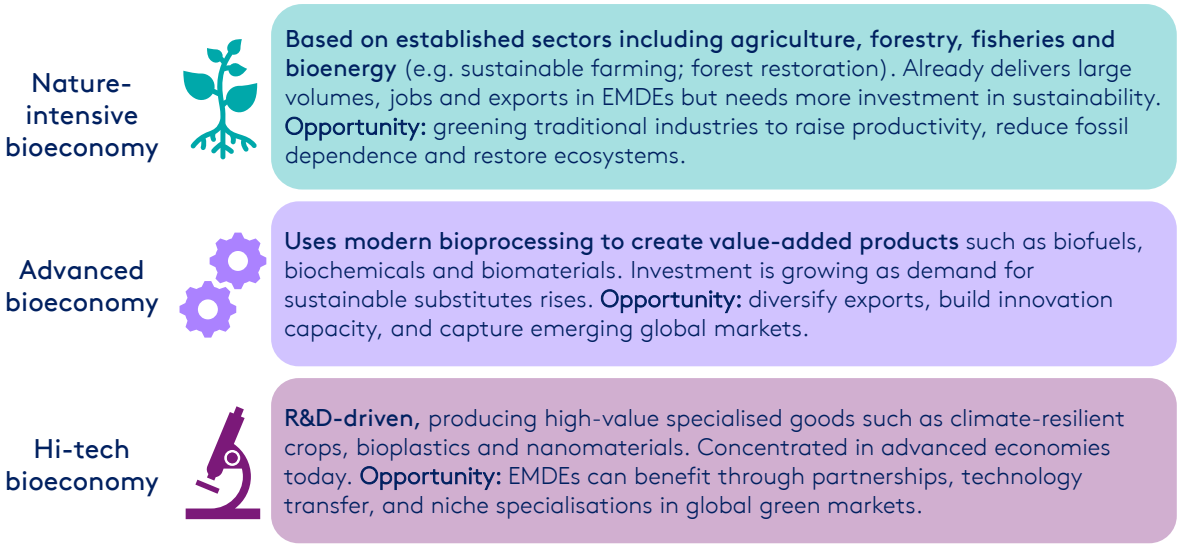
For EMDEs, scaling up investment in nature offers major economic, climate and social gains, including:

- **Economic growth and returns.** Every dollar invested in land restoration generates $7–30 in benefits through higher productivity, improved water quality and avoided damage from climate change (Verdone and Seidl, 2017). Restoring one billion hectares could unlock $1.8 trillion annually in global benefits (UNCCD, 2024a).
- **Climate change mitigation and disaster resilience.** Healthy ecosystems act as natural buffers, reducing disaster risks by absorbing excess water, stabilising soils, regulating local climates and lessening the impact of floods, droughts and storms. Mangroves, wetlands and reefs are natural defences, reducing flood and storm damage by tens of billions of dollars per year while also storing carbon and sustaining fisheries (World Bank Group, 2021). Nature-based solutions (NbS) for disaster risk reduction outperform grey infrastructure in the majority of cases (Vicarelli et al., 2024).
- **Jobs, livelihoods and the bioeconomy.** Scaling up nature restoration and sustainable agriculture could create millions of jobs, especially for youth in Africa, while improving food security and rural incomes (ILO et al., 2022). A thriving bioeconomy (see Box 2.4) can further drive circular and innovative business models, creating new job and export opportunities in EMDEs, all while regenerating natural capital rather than depleting it (Nature Finance and World Bioeconomy Forum, 2024).
- **Equity and inclusion.** Indigenous Peoples, local communities and women are often the best stewards of ecosystems, yet they receive a fraction of climate and nature finance (Blundell et al., 2025; Sorsby et al., 2025). Where rights are secured and finance is governed locally, biodiversity and livelihoods both improve (Dawson et al., 2021). Directing resources to these groups ensures more durable, effective investments.
- **Macro-financial opportunity.** Embedding ecosystem value and risks into fiscal frameworks, debt analyses and financial regulation can lower sovereign spreads, reduce fiscal stress from disasters and attract investment – making natural capital a driver of macroeconomic stability and creditworthiness (Center for Global Commons and Systemiq, 2025).

Box 2.4. The bioeconomy: a nature-positive growth opportunity for EMDEs

The bioeconomy, which links biological resources with science, technology and innovation, offers EMDEs a powerful pathway to growth, resilience and new markets. Unlike extractive models, a circular and regenerative bioeconomy can create jobs, diversify exports, reduce pressure on ecosystems, and position countries at the forefront of global green markets while regenerating natural capital.

Several EMDEs are already leading in this sector, including Colombia and countries in Eastern Africa through the BioInnovate Africa programme. **Colombia's bioeconomy strategy** aims to generate 2.5 million jobs and 10% of GDP by 2030, built on hundreds of sustainable bioproducts and patents. **BioInnovate Africa,** operating across Kenya, Uganda, Tanzania, Ethiopia and Rwanda, supports scientists and entrepreneurs in developing bio-based solutions such as biodegradable packaging, biofuels and climate-smart agriculture. These two examples show how targeted policies, regional innovation networks and finance can turn nature-positive innovation into competitiveness.



Source: Authors, based on Nature Finance and World Bioeconomy Forum (2024)

The challenge

Despite its fundamental role, natural capital is being depleted at alarming rates. Failure to invest in protecting and restoring ecosystems is already undermining growth, fiscal stability and social resilience, and the risks will escalate sharply if action continues to be slow. Capital flows still fuel environmental harm: in 2023, around $1.8 trillion in *explicit environmentally harmful subsidies* were provided – mainly for fossil fuels and agriculture – while substantially larger, less transparent public and private financial flows continued to support unsustainable activities (see Section 4.3). Without a decisive shift in incentives and investment flows, natural capital loss will accelerate, deepening economic fragility, worsening food insecurity and entrenching social inequality.

The risks of inaction include:

- **Escalating economic costs.** Land degradation already affects more than 3 billion people and costs the global economy nearly $900 billion annually (UNCCD, 2022; 2024a; 2024b). Degraded land, soils and ecosystems already shave points off GDP in many EMDEs: in Pakistan, degraded ecosystems reduce national income by 6.5% of

GDP; in Malawi, 80% of farmland is degraded, undermining agriculture – the main source of jobs and exports (World Bank Group, 2022a, 2022b). These are not isolated shocks but a structural macro-fiscal risk (Ranger et al., 2025). The collapse of just three ecosystem services – wild pollination, marine fisheries, and timber provision in native forests – could reduce global GDP by $2.7 trillion by 2030, with low-income countries losing more than 10% (Johnson et al., 2021). Macro-modelled second-round effects show GDP losses of more than 6% even in advanced economies, and over 10% under a global pandemic scenario, with climate hazards amplifying the economic hit from ecosystem decline (Ranger et al., 2024).

- **Systemic macro-financial risks**. Around 40% of bank lending from the world's largest banks is tied to firms reliant on vulnerable ecosystems or harmful subsidies, creating systemic risks and abrupt repricing as regulations tighten (Gardes-Landolfini et al., 2024). Nature loss also erodes fiscal space by shrinking tax bases, raising disaster-related expenditures, and weakening sovereign credit ratings.
- **Erosion of economic value and distorted investment signals.** If natural capital continues to be excluded from economic and financial decision-making, markets will keep mispricing risk and rewarding depletion over restoration (Center for Global Commons and Systemiq, 2025). This will generate mounting hidden liabilities – declining wealth masked as growth, misallocated capital, and delayed recognition of nature-related risks that could trigger abrupt asset repricing and financial instability.
- **Deepening inequality and vulnerability.** Poor and rural households, women and Indigenous Peoples depend the most on nature but are least able to withstand shocks. Without scaled up and inclusive finance for nature, these groups will face worsening poverty, food insecurity and displacement. In parallel, reforms such as subsidy removal or land-use restrictions, if not carefully managed, can create short-term livelihood losses, underscoring the need for just transition policies that combine social protection and reskilling, and for inclusive decision-making that builds the social legitimacy needed for durable climate and nature action.

Nature is rising up the global agenda, with all three Rio Conventions stepping up action. COP30 in Belém will highlight forests and nature-based solutions under the UNFCCC; the Convention on Biodiversity's Global Biodiversity Framework (GBF) has set targets to conserve 30% of land and oceans, phase out $500 billion in harmful subsidies and mobilise $200 billion annually by 2030; and more than 100 countries have pledged land degradation neutrality under the UN Convention to Combat Desertification (UNCCD) (i.e. a state where the amount and quality of land resources remain stable or increase over time). Yet finance for these pledges still trails far behind finance for climate measures, and fragmented action risks displacing communities or degrading ecosystems. Integrated approaches are essential: there is no path to meeting the Paris Agreement targets or the GBF goals without tackling climate, biodiversity and land degradation together.

EMDEs other than China will need $350 billion annually for nature investment by 2035. But finance alone is not enough: natural capital must be treated as core infrastructure, embedded in fiscal and financial systems, and reflected in budgets, debt analyses and corporate balance sheets. Agriculture, forestry and fisheries must shift to nature-positive practices; threatened ecosystems must be restored; and frontline communities – especially women and Indigenous Peoples – must govern resources. By 2035, a thriving bioeconomy should be driving jobs, exports and innovation while regenerating ecosystems. The priority is not just to scale up nature-positive finance but to flip the numbers – redirecting trillions from destructive to regenerative investments through robust policy and regulatory reforms.

Investment priorities

Natural capital investment is central to achieving climate and biodiversity goals, yet it is often omitted from headline figures because the costs are private or difficult to isolate at the global level. Oceans also matter: covering 70% of the planet and absorbing a quarter of annual CO_2 emissions, they are the world's largest carbon sink and critical to food, jobs and trade. While in this respect this report focuses on coastal ecosystems, where investment models are more advanced, the open ocean as a global common good demands urgent international action to strengthen governance, manage high-seas fisheries and curb destructive practices such as deep-sea mining.

Table 2.4. Five investment priority areas for natural capital in EMDEs

Priority area	What it means	Examples of measures and opportunities
Degraded land and soils	Restoring fertility of croplands, rangelands and soils degraded by erosion, nutrient loss or salinisation, essential for food security, water regulation and carbon storage; sustainable agriculture.	Regenerative agriculture in Sub-Saharan Africa; soil carbon enhancement in South Asia; rangeland restoration.
Forests and biodiversity corridors	Protecting intact forests, restoring degraded areas, and maintaining ecological corridors that sustain rainfall, absorb carbon and host biodiversity.	Amazon and Congo Basin forest protection; agroforestry schemes; biodiversity corridors in Southeast Asia.
Watersheds and freshwater systems	Restoring rivers, wetlands and aquifers to ensure water supply, reduce flood/drought risk and filter pollutants.	Wetland restoration; upstream catchment reforestation; buffer zones for rivers and lakes.
Coastal ecosystems	Safeguarding mangroves, reefs, seagrasses and saltmarshes that protect coasts, store blue carbon and sustain fisheries and tourism.	Mangrove replanting in South Asia; coral reef rehabilitation in the Caribbean; seagrass protection in West Africa.
Urban nature and green infrastructure	Integrating nature into fast-growing cities to reduce heat stress, manage floods, improve health and complement grey infrastructure.	Medellín's 'green corridors' project, Colombia; urban forests, parks and green roofs in African and Asian megacities.

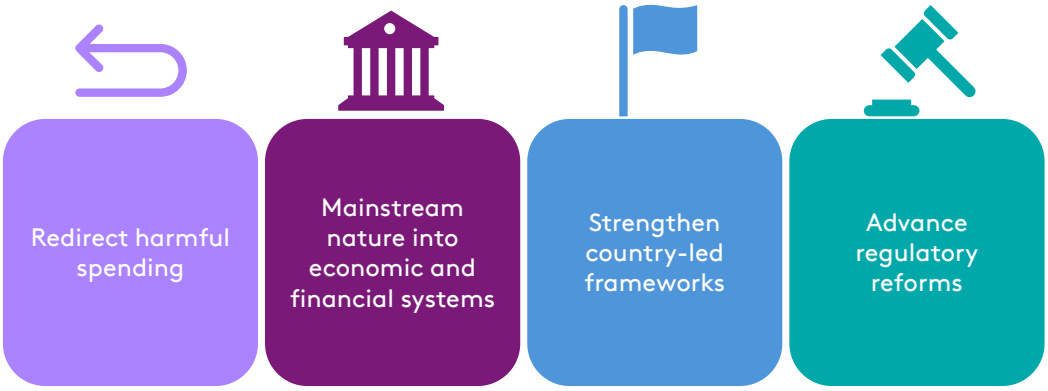
Note: Estimates on natural capital are based on Center for Global Commons and Systemiq (2025).

Policy foundations

Financing nature is challenging because of deep-rooted market failures. The benefits of healthy ecosystems – such as carbon storage, flood protection and soil fertility – are largely public goods that markets undervalue or ignore, while private value chains and livelihoods all depend on them. At the same time, harmful subsidies and weak regulation

continue to incentivise destruction. This means private capital rarely flows at the scale needed without policy reform, public leadership and risk-sharing mechanisms. Addressing these failures is essential to crowd in investment and align financial flows with nature-positive outcomes. The four central policy shifts required are described in Box 2.5.

Box 2.5. Four policy priorities to restore natural capital in EMDEs



Redirect harmful spending – Fiscal policy is the most direct lever governments control. Repurposing just a fraction of the $400 billion in public agricultural subsidies can shift incentives towards soil health, water conservation and biodiversity, while freeing up fiscal space for investment and creating predictable revenue streams that crowd in private capital.

Mainstream nature into economic and financial systems – Natural capital must be treated as macro-critical. Ministries of Finance can integrate natural capital into budgets, fiscal frameworks and sovereign risk analysis, while central banks and supervisors can recognise biodiversity loss as a systemic risk on a par with climate change. Disclosure standards such as those from the Task Force on Nature-related Financial Disclosures (TNFD) provide the tools for investors and firms to measure, manage and align capital flows.

Strengthen country-led frameworks – Scaling up finance requires aligning all sources of capital behind country-owned priorities and plans. Integrating NDCs, NAPs and National Biodiversity Strategies and Action Plans (NBSAPs) into coherent investment strategies, building capacity for project pipelines and supporting locally led approaches – including through Indigenous Peoples' organisations and women's groups – will ensure finance is effective and equitable. (These themes are explored further in Section 4.1 on country platforms and planning frameworks.)

Advance regulatory reforms – Finance will only shift at scale if the underlying rules and risk frameworks change. This means integrating nature-related risks into credit ratings, sovereign debt sustainability analyses and prudential supervision; aligning financial flows with the Global Biodiversity Framework; and requiring disclosure of nature dependencies and impacts in line with the TNFD. These reforms are already being piloted: for example, FSD Africa is working with African financial institutions to test natural capital accounts and biodiversity stress-tests. Regulatory action sets the guardrails for both public and private finance, ensuring subsidies, investment and capital markets all move towards nature-positive outcomes (see further Sections 4.1 and 5.5).

Implications for finance

Mobilising finance for natural capital is not a one-size-fits-all challenge. Conservation, restoration, infrastructure, agriculture and innovation have very different economics – some of these generate cashflows, others deliver public goods through avoided losses and resilience. Returns can come not only as revenues, but through reduced disaster bills, lower sovereign spreads or greater fiscal headroom. The right mix of public and private, concessional, domestic and international finance must therefore be tailored to each type of investment.

Public finance must underpin conservation and public goods, while private finance drives the transition:

- *Conservation and restoration* often lack direct revenue streams and will continue to rely on public budgets, concessional resources and grants. These should be deployed strategically – through blended structures, guarantees and results-based finance – to de-risk projects and crowd in private capital.
- **Nature-based infrastructure (NbI),** such as mangroves for coastal protection or wetlands for flood control, delivers measurable public benefits such as reduced disaster costs or lower insurance premiums but generates little direct cashflow. It is therefore best financed through domestic budgets with targeted international support. By contrast, the transition of firms and sectors to nature-positive models must be led by private finance, with public policy shaping incentives and standards.

Productive-sector transitions must be private-led, but enabled by strong policy. Agriculture, forestry, fisheries and water-intensive industries should be primarily financed by the private sector, with governments setting the regulatory and fiscal frameworks that make nature-positive practices the norm. Instruments such as sustainability-linked loans and bonds tied to outcomes like deforestation-free supply chains or improved soil health can unlock investment at scale. Nestlé's work on upscaling regenerative agriculture across its supply chains and IDB Invest's Natura sustainability-linked bond in Brazil (2024) illustrate how finance can drive nature-positive business models.

Innovation and the bioeconomy depend on venture and growth capital. Public co-investment, concessional windows and procurement can de-risk new technologies – ranging from agri-tech to bio-based materials – so they can attract private equity and commercial lenders. The International Finance Corporation (IFC) and partners' new Nature Accelerator in Southern Africa, launched with mining company Anglo American and bank RMB, is an example of how to build replicable, financeable nature-smart solutions with strong private-sector participation.

Sovereign and international finance are central to protecting global public goods. Tropical forests and other ecosystems at risk from tipping points require large-scale international public finance, complemented by sovereign instruments that align fiscal sustainability with conservation. Recent debt conversions in Ecuador and Barbados – backed by MDB and the U.S. International Development Finance Corporation (DFC) guarantees – mobilised hundreds of millions for ecosystems while easing debt risks, showing how liability management can be linked to durable conservation outcomes. New facilities such as Brazil's proposed Tropical Forest Forever Facility (TFFF) could take this further by sustaining finance for globally critical ecosystems where domestic revenues are insufficient (see Section 5.4).

Insurance and resilience finance must expand, with a sharper focus on scalable solutions. Instruments such as Mexico's parametric reef insurance or resilience bonds linked to mangroves show how ecosystems can be financed as risk-reducing services, but

the challenge is to replicate and scale up these models across regions and asset classes. Aggregating risks across portfolios, using public or MDB backstops, and embedding nature into mainstream insurance markets are critical to move from pilots to systemic coverage.

A roadmap for embedding natural capital into economic and financial decision-making and for mobilising investment at scale is described in *Making Natural Capital Count* (Center for Global Commons and Systemiq 2025), which was written as a companion report to this report.

Just transition

The opportunity

Managing structural change fairly is a defining challenge of climate action. The low-carbon shift will disrupt industries and livelihoods even as it creates new opportunities, and whether it drives inclusive development or instability depends on how deliberately it is planned and financed. A just transition is not only about cushioning risks but about turning disruption into gains – creating decent jobs, resilient communities and more competitive, diversified economies. **The areas below show where well-designed strategies can deliver the greatest opportunities:**

- **Unlocking quality jobs and inclusive skills systems.** In many EMDEs, where most workers are in the informal economy and youth unemployment is high, the transition offers a chance to build modern skills systems and new pathways to decent work. Large-scale reskilling for fossil fuel and emissions-intensive workers, combined with upskilling and training for new entrants into green sectors such as renewable energy, sustainable agriculture, forestry and circular industry, can open up pathways to decent jobs and social mobility. Done right, these efforts can reduce existing gender and social inequities rather than replicate them. South Africa's Just Energy Transition Partnership (JETP) shows how retraining and social protection can be embedded in investment plans backed by international finance (Government of South Africa, 2024).
- **Revitalising regions and communities.** Many EMDEs depend heavily on fossil fuels, mining, or land-intensive industries concentrated in a few regions. Targeted diversification programmes can prevent regional decline and stimulate new sources of income. Ghana's Energy Transition Framework, for example, aims to create nearly 400,000 renewable energy jobs while cushioning fossil-fuel-reliant communities (Government of Ghana, 2025).
- **Strengthening social protection and resilience systems.** Weak safety nets and limited fiscal space heighten vulnerability to transition shocks. Expanding adaptive safety nets, wage subsidies and care systems can buffer against short-term impacts while building long-term resilience. Bangladesh's Delta Plan 2100 integrates resilience with social services to safeguard the most vulnerable, for example (General Economics Division, 2018). Financing these measures requires integrated investment plans – combining concessional resources, development banks and private capital – to fund retraining, SME diversification, and local infrastructure in transition-affected regions.

The challenge

Poorly managed low-carbon transitions risk dislocation and instability. In EMDEs, where fossil dependence, large informal labour markets, and limited fiscal and institutional capacity intersect, structural shifts can erase jobs, deepen inequality, and strain already-fragile safety nets. Without proactive planning, predictable finance and social dialogue, the low-carbon shift could undermine rather than reinforce inclusive development.

The scale and nature of these risks vary across contexts (Atteridge et al., 2022). In fossil fuel–dependent economies like Colombia and Nigeria, declining coal, oil and gas demand threatens both fiscal revenues and local economies. In coal-intensive but more diversified economies such as Indonesia and Vietnam, impacts are concentrated in coal regions but ripple nationally through energy price reforms and public-sector revenues. In labour-intensive and agrarian economies such as Bangladesh or Malawi, transitions in garment manufacturing, agriculture and irrigation systems risk displacing millions of low-paid or smallholder workers. Tailored, country-specific strategies are therefore essential to turn disruption into opportunity and ensure transitions are fair.

The main risks of unmanaged transitions are clear:

- **Job and livelihood losses.** Coal, oil and gas workers could lose livelihoods without being provided with alternative jobs or retraining. Informal workers – often women and youth – risk exclusion from reskilling programmes. In agriculture and nature-based sectors, smallholders may face productivity shocks and income losses if they do not gain access to finance or technology.
- **Fiscal shocks and distributional pressures.** Fossil-fuel subsidy reforms and declining fossil fuel revenues can squeeze fiscal space and raise energy and transport costs for poor households if not cushioned by social protection and targeted transfers.
- **Sector-wide disruption beyond fossil fuels.** Transition pressures extend well beyond coal, across manufacturing, transport, agriculture and land-use systems. Garment workers in Bangladesh face risks from global supply chain decarbonisation; informal drivers in Ghana could be displaced by electrified public transport; smallholder farmers in Kenya and Malawi face costs in shifting to climate-smart practices; and heavy industry in India and Egypt faces rising decarbonisation costs with wide employment impacts (see further Section 4.4).
- **Macroeconomic and systemic fragility.** In many EMDEs, high fossil dependence, limited diversification and weak safety nets make unmanaged shifts especially destabilising. In addition, limited institutional capacity, low social trust and external shocks – such as new carbon border measures or shifting trade patterns – can magnify transition risks and undermine stability unless managed through inclusive planning and international support.

New international frameworks and partnerships are emerging to support countries. The Just Transition Work Programme (JTWP), established at COP27 and operationalised at COP28, provides a global platform for dialogue, learning and resource mobilisation. JETPs in South Africa, Indonesia, Vietnam and Senegal are testing financing models that combine decarbonisation with social protection and regional development. The Just Transition Guidelines of the International Labour Organization (ILO), reaffirmed in 2023, set global benchmarks for labour rights and safeguards (ILO, 2016). The Climate Investment Funds (CIF) are piloting innovative approaches in countries such as Angola and Mongolia, using AI-driven skills-mapping and participatory planning (CIF, 2024). MDBs including the African Development Bank (AfDB), Asian Development Bank (ADB) and European Bank for Reconstruction and Development (EBRD) are beginning to integrate just transition into country strategies, linking financial support with reskilling, subsidy reform and regional resilience. Together, these developments show that just transition is no longer peripheral but central to achieving the Paris Agreement targets.

Investment priorities

By 2035, EMDEs other than China will need to significantly scale up just transition spending. While rigorous, country-specific assessments are still lacking, our illustrative estimates suggest requirements could amount to **$50 billion per year by 2035**. Though

modest compared to clean energy or adaptation needs, such spending is catalytic: it secures the political licence to transition and protects vulnerable populations. Investment priorities cluster around three areas and must extend beyond coal to include garment manufacturing, transport, agriculture and heavy industry – sectors in which millions of livelihoods are at stake (see Table 2.5).

Table 2.5. Three investment priority areas for the just transition in EMDEs

Priority area	What it means	Examples of progress
Workers	Reskilling and redeployment for those employed in fossil fuel or emissions-intensive sectors, as well as upskilling of new entrants (e.g. women in the clean energy sector)	South Africa's retirement schemes and training for coal workers; Vietnam's reskilling roadmap for 120,000 coal miners.
Communities	Diversifying fossil fuel–dependent regions and investing in place-based development, infrastructure and SMEs.	Ghana's National Energy Transition Framework aims to create nearly 400,000 jobs in renewables while cushioning affected communities (Government of Ghana, 2025). Colombia is piloting energy community programmes to sustain livelihoods in coal-dependent territories (Duran Prieto et al., 2025).
Social and institutional systems	Expanding safety nets, cash transfers, health and education services, and programmes that address the different needs and constraints faced by women, men and marginalised groups during the transition.	Bangladesh's Delta Plan 2100 links diversification with social services; Nigeria's Gender-Inclusive Transition monitoring, reporting and verification (MRV) requires 50% participation of women and youth in projects (Tarfa et al., 2024).

Policy foundations

Finance for a just transition will only flow if underpinned by strong policy and institutions. In EMDEs – where labour informality, fiscal constraints and institutional fragmentation are acute – policy frameworks must integrate justice into national planning, strengthen labour and social systems, and enable participatory, place-based delivery – see Box 2.7.

Box 2.7. Three policy priorities to foster a just transition in EMDEs

Institutional integration – Coherent institutional arrangements are the backbone of an effective just transition. Ministries of Finance, Labour, Energy, Planning and Social Development must work in concert to embed justice across macroeconomic, sectoral and fiscal frameworks. This includes aligning national development plans, long-term strategies and budget processes so that social and environmental goals are pursued together rather than in silos. Ministries of Finance, in particular, have a pivotal role in ensuring that transition priorities are reflected in expenditure frameworks, public investment plans and fiscal incentives. Because transitions are experienced locally, subnational governments and local authorities must also be empowered – both financially and administratively – to plan and implement transition measures suited to regional realities.

Labour and social protection policies – Following the ILO's Just Transition Guidelines, governments should expand portable benefits, strengthen collective bargaining and embed large-scale reskilling and upskilling into industrial and labour-market policy. In EMDEs, where most workers are informal and youth unemployment is high, these strategies must go beyond cushioning against job losses to create new, quality employment in growing green sectors – such as renewables, regenerative agriculture, sustainable forestry and care services. Investing in training and inclusion can unlock productivity, competitiveness and social stability.

Participation and coherence – Inclusive, place-based approaches are critical to legitimacy and durability. Engagement must go beyond formal workers to include informal labour, small enterprises, women's groups and community organisations, whose livelihoods are directly affected by the transition. Structured social dialogue – among governments, employers, unions and civil society – can build trust, anticipate tensions and ensure that transition measures reflect local priorities. In EMDEs, local governments and community platforms have a particularly vital role in coordinating delivery, ensuring coherence with broader goals such as housing, education and SME development.

Implications for finance

Financing a just transition is less about building large-scale infrastructure – such as the renewables, grids or transport systems central to the clean energy transition – and more about structuring finance to support people and places with the right timing, helping workers, communities and vulnerable groups adapt as economies decarbonise. In EMDEs, where fiscal space is limited and social investments often yield public rather than commercial returns, concessional and innovative instruments are indispensable. Principles to guide this agenda are still being refined, but emerging

consensus points to embedding justice in all investments, aligning international and domestic finance with country-led strategies and ensuring that just transition finance is treated as integral, not residual, to the transition.

Five priorities stand out:

- **Concessional resources as the foundation.** Grants and concessional lending are indispensable for funding reskilling, social safety nets and regional diversification. These investments are not always commercially viable but are essential to protect vulnerable groups and secure the political licence to transition.
- **Blended and innovative finance to crowd in private capital.** MDBs can structure blended facilities that channel resources into transition funds and attract private investors. Sovereign instruments – such as sustainability-linked bonds with just transition targets – are also being explored as a way to align financial markets with social outcomes.
- **Domestic revenue mobilisation.** National reforms can provide sustainable domestic finance streams. Recycling revenues from carbon taxes or fossil-fuel subsidy reform can fund social protection, retraining and local economic diversification, reducing reliance on external support and improving fiscal resilience.
- **Capacity-building and institutional strengthening.** Building the capabilities of public institutions, financial intermediaries and local governments is essential for designing and managing transition policies, engaging communities and integrating social dimensions into investment planning. International partnerships and South–South learning can accelerate skill development, knowledge exchange and implementation capacity.
- **Sequencing and alignment of finance over time.** Different stages of transition require different instruments: short-term concessional finance for safety nets and retraining; medium-term blended finance for industrial diversification and SME growth; and long-term investment in inclusive infrastructure and services. Coordinating these flows across governments, donors, MDBs, labour unions, private capital and civil society ensures that justice is embedded across all climate investments, not treated as an afterthought.

Special focus: cities

The opportunity

Cities are where climate and development will be won or lost. Already home to over half of humanity, they will absorb most of the population growth to 2050, especially in Africa and Asia, with many new residents settling in secondary and peri-urban areas where infrastructure gaps are greatest (UN DESA, 2019; OECD et al., 2025; Ritchie et al., 2025). By mid-century, more than two-thirds of the world's population will live in urban areas (Ritchie et al., 2025). Cities concentrate people, assets and emissions, making them both highly exposed to climate risks and pivotal to decarbonisation and resilience. For EMDEs, urbanisation is both a challenge and an opportunity: with the right investments and policies, cities become engines of productivity and low-carbon growth – compact, connected, clean and inclusive.

Key opportunities include:

- **Driving productivity and competitiveness.** Cities are the engines of economic growth – home to over 80% of global GDP generation and the majority of new jobs (UN DESA, 2022). As hubs of industry, services and innovation, they concentrate talent, infrastructure and markets, enabling productivity gains through proximity and scale. For EMDEs, compact, transit-oriented urban design can unlock major efficiency

dividends – reducing infrastructure costs, congestion and energy use, while enhancing labour mobility and business connectivity. Low-carbon urban development could generate up to $24 trillion in net economic benefits by 2050, with the strongest gains in EMDEs, where urban growth is fastest (NCE, 2018).

- **Transforming urban energy and mobility systems.** Cities account for more than two-thirds of global energy demand and thus are central to the transition to cleaner, more affordable energy (IEA, 2024a). By expanding distributed renewables – such as rooftop and community solar, district energy and battery storage – urban areas can enhance local energy security and resilience. On the demand side, electrifying transport, improving building efficiency and promoting compact, connected development can reduce emissions, congestion and air pollution while lowering costs for households and businesses. With the right policies and finance, cities can lead national energy transitions and deliver tangible economic and social benefits.
- **Improving urban health, resilience and quality of life.** Investing in modern urban infrastructure – such as reliable water supply, sanitation, waste management, drainage and climate-resilient cooling – directly improves public health and reduces the spread of disease. Greener public spaces and improved air quality enhance mental and physical wellbeing, while nature-based solutions such as urban wetlands and tree canopies reduce heat stress and flood risk. Strengthening these systems not only protects lives but also boosts productivity and economic stability, particularly for low-income and informal settlements most exposed to climate hazards.
- **Fostering circular and inclusive economies.** Cities can become hubs of circular growth by turning waste into resources, water into a reusable asset, and derelict areas into productive zones. Expanding recycling and composting, reusing construction materials and promoting local green industries – such as repair, remanufacturing and renewable energy – can create large numbers of decent local jobs. At the same time, inclusive planning that expands access to affordable housing, transport and public services helps reduce inequality and strengthen social cohesion.

The challenge

If rapid urbanisation in EMDEs is not managed with strong planning, finance and inclusive governance, it will lock cities into patterns of high emissions, vulnerability and inequality for decades to come. Less than 10% of required climate finance reaches cities directly (CCFLA, 2024), with most EMDE municipalities lacking the creditworthiness, borrowing authority or fiscal strength to mobilise capital at scale.

The risks of inaction are profound and include:

- **Locked-in emissions and inefficiency.** Cities generate around 70% of global greenhouse gas emissions, placing them at the heart of the climate challenge (IEA, 2024a). Without integrated planning, rapid urban expansion risks entrenching car-dependent, energy-intensive systems that are costly to maintain and hard to reverse. Urban form and infrastructure choices made in the next decade will determine emission pathways and energy demand for generations, especially in EMDEs, where urban populations are growing fastest (Lwasa et al., 2022).
- **Rising climate exposure in urban areas.** By 2050, 1.6 billion urban residents could face extreme heat and 650 million water scarcity. Floods already account for 35–40% of disasters in urban areas (C40 Cities et al., 2018; UNDRR, 2025). Many EMDE cities face additional challenges from degraded ecosystems, inadequate drainage and weak emergency response systems.
- **Vulnerability of informal settlements.** Over 1 billion people already live in informal settlements, often located on hazard-prone land with insecure tenure and limited

services, making them the populations the most exposed to heat, floods and disease. In many EMDEs, the pace of informal growth outstrips the ability of local authorities to provide resilient infrastructure.

- **Widening inequality and exclusion.** The greatest impacts fall on poor households, women and marginalised groups, who often face higher risks but have the least protection, resources and voice in decision-making. When governance is not inclusive, these vulnerabilities are often overlooked or inadequately addressed, weakening the overall resilience of cities. Without deliberate efforts to include affected communities in planning and resource allocation, rapid urbanisation risks deepening social fragmentation and eroding public trust.

Despite these challenges, cities are showing leadership and innovation. More than three-quarters of signatory cities of the Global Covenant of Mayors (GCoM) have targets more ambitious than their national NDCs, and over half intend to reach them faster (Global Covenant of Mayors for Climate and Energy, 2023). GCoM and other networks such as C40 Cities and the International Council for Local Environmental Initiatives (ICLEI) are enabling knowledge exchange, joint advocacy and shared access to technical expertise. At COP28, the Coalition for High Ambition Multilevel Partnerships (CHAMP) was launched to strengthen national–local collaboration and formally recognise cities as co-creators of climate solutions. These initiatives demonstrate both the ambition and agency of cities in shaping the transition. Yet the finance gap remains stark: the Intergovernmental Panel on Climate Change (IPCC), as cited in C40 Cities (2024) estimates that only 7–8% of climate finance needed for a just urban transition currently reaches cities, underlining the urgency of systemic reform.

Investment priorities

Urban investment cuts across all pillars of this report – clean energy, adaptation, loss and damage, natural capital and just transition – but cities are where these priorities intersect on the ground. Four core priorities stand out (see Table 2.6).

Equity must be central. Over one billion people already live in informal settlements, with the share exceeding 50% in Sub-Saharan Africa (Bettencourt and Marchio, 2025). Upgrading housing, drainage and services in these areas is essential to avoid maladaptation and strengthen social cohesion.

Table 2.6. Four investment priority areas for cities in EMDEs

Priority area	What it means
Transport	The most capital-intensive need is for public transport and non-motorised infrastructure. Strong governance and electrification are essential. The expansion of Bogotá's e-bus programme and Lagos's Bus Rapid Transit (BRT) system shows what is possible.
Buildings and distributed energy	Public investment is needed for efficiency retrofits and rooftop solar. Targeted initiatives – like Ahmedabad's cool roofs (India) and Mexico City's school retrofits – demonstrate high social and climate returns.
Basic services	Investment is needed in solid waste management to reduce methane emissions and enact major health gains. Water/wastewater upgrades, though smaller in scale, are indispensable for resilience. Urban greening, trees and permeable

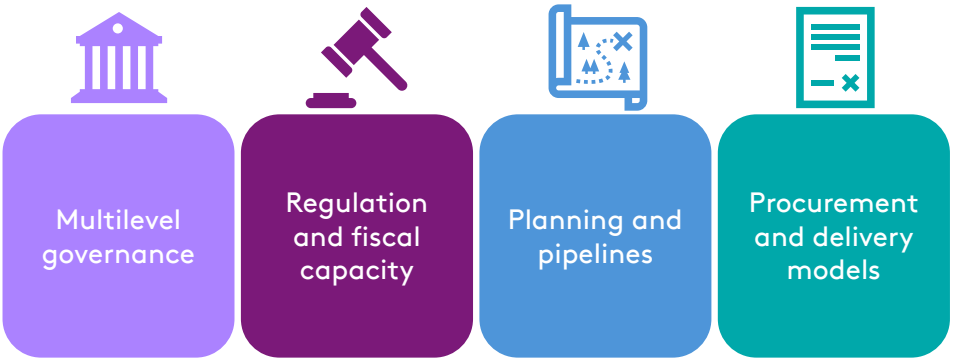
	surfaces provide low-cost, high-return resilience and health benefits.
Adaptation to heat and floods	Heat action plans are low-cost and high-impact. However, flood protection requires major investment in both grey and green infrastructure, from building engineered defences to protecting and restoring wetlands and mangroves.

Note: Based on Deuskar et al. (2025)

Policy foundations

Even where urban investment needs are clear, most municipalities lack the enabling conditions to finance them. National governments, local authorities and international partners must work together to strengthen fiscal, regulatory and institutional frameworks. Four priorities are described in Box 2.8.

Box 2.8. Four policy priorities for cities in EMDEs



Multilevel governance – Stronger coordination between national and local levels is essential. Most EMDE cities lack the fiscal autonomy or borrowing authority needed to access finance directly. National governments should embed city priorities in NDCs and NAPs, create predictable intergovernmental transfers and establish co-financing windows for urban infrastructure. The CHAMP initiative launched at COP28 illustrates how recognising cities as formal partners can unlock ambition and resources. In India, national support for municipal bonds, through credit ratings and partial guarantees, has enabled cities such as Pune and Ahmedabad to raise funds directly on capital markets for climate-aligned projects.

Regulation and fiscal capacity – Predictable rules and a stronger fiscal base make urban investment viable. Enforceable building codes, transport demand measures and standards for stormwater and nature-based solutions create markets for low-carbon infrastructure. Reforms to property tax systems, land value capture and user charges can expand the revenue base. Colombia's land value capture mechanisms around transit corridors have financed metro and BRT expansion, while Kenya's property tax reforms are gradually strengthening municipal revenues. Over time, these measures help cities build creditworthiness and attract external finance.

Planning and pipelines – Bankable urban climate projects start with credible plans and data. Cities need climate-smart land-use plans aligned with national strategies, backed by MRV systems and professional project preparation units. Standardised templates and cost–benefit metrics can reduce transaction costs and increase investor confidence. For example, South Africa's Cities Support Programme has helped metropolitan municipalities

develop climate-compatible infrastructure plans that feed into both local and national investment pipelines. In Sierra Leone, Freetown's community-led tree-planting initiative has also shown how strong planning can crowd in international climate finance while addressing local adaptation priorities.

Procurement and delivery models – Smarter delivery models can mobilise private expertise and capital. Aggregated tenders for e-buses, energy performance contracts for building retrofits, and public–private partnerships (PPPs) for waste management are already demonstrating results. In Colombia, Bogotá has adopted 'bus-as-a-service' procurement models that help operators and the city manage the high upfront costs and infrastructure needs of electrification, while Mexico City has implemented energy-efficiency retrofits in public buildings through technical support and PPP-based advisory assistance. Including clear social safeguards and requirements that respond to the different mobility and safety needs of women, men and low-income groups helps ensure projects improve access, safety and service quality for those who rely on them most.

Implications for finance

Unlocking climate finance for cities is not simply a matter of scaling up flows: it is about ensuring that resources reach the local level, in forms and volumes suited to urban realities. Most investments are local-currency, service-based and require long payback horizons – yet international finance is still geared to sovereign, large-scale projects. By 2035, success will mean many more EMDE cities with investment-grade profiles, active participation in domestic bond markets, and predictable access to MDB and climate fund support.

There is a need to:

- **Anchor finance in domestic systems.** Most urban investments, from transport to drainage, are financed and serviced in local currency. Strengthening municipal revenue bases, improving transfers and supporting prudent fiscal decentralisation are critical to mobilising domestic public finance and reducing reliance on foreign currency borrowing.
- **Scale up concessional and blended finance.** MDBs, national development banks (NDBs) and climate funds must create dedicated urban climate windows that combine concessional resources, technical assistance and project preparation. This is particularly urgent for adaptation and resilience measures that lack clear cashflows, such as drainage or heat action plans.
- **Move from projects to programmatic platforms.** Aggregated investment programmes can reach the ticket sizes needed to attract institutional investors while reducing transaction costs. For example, programmatic approaches to urban flood protection can combine hard defences with nature-based solutions across entire basins, creating investable portfolios rather than isolated projects.
- **De-risk private investment.** Guarantees, subordinated debt and pooled credit lines can help overcome the perception of high risk in city-led projects, especially in secondary cities. Instruments such as green municipal bonds, when paired with MDB or NDB credit enhancements, can expand access to private investors.
- **Ensure finance reaches vulnerable communities.** Without safeguards, climate investment risks reinforcing inequality by favouring central districts over informal settlements. Dedicated grant and concessional windows can target slum upgrading, affordable housing retrofits or drainage in flood-prone, low-income areas.

2.2. Technology and robust supply chains

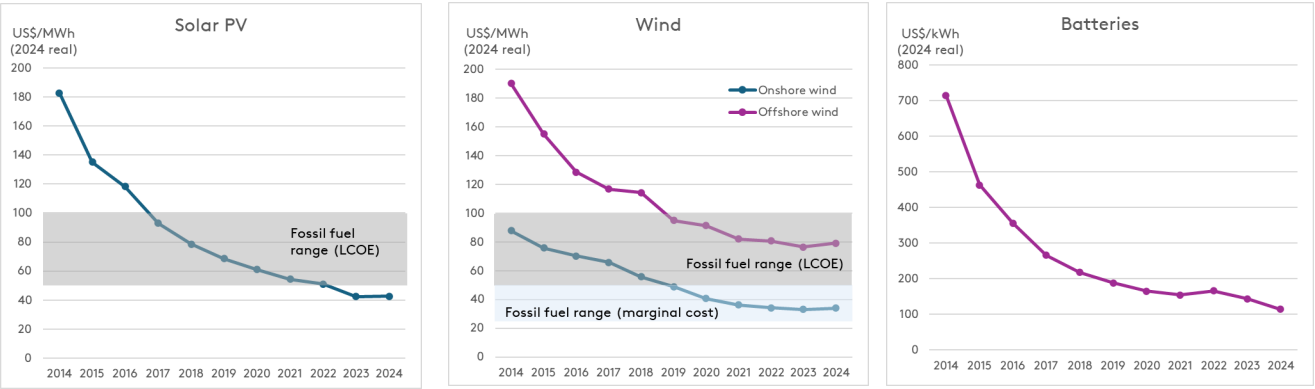
Transformative change powered by technology

Technology is reshaping the economics and possibilities of climate action, driving breakthroughs that make transitions faster, cheaper and more effective. Renewables are now the lowest-cost source of new electricity in most markets, supported by dramatic cost reductions in solar, wind and storage over the past decade (IRENA, 2025a; UN, 2025a). Indeed, following decades of innovation, the cost of solar and wind is already lower than that of fossil fuels (see Figure 2.1) (Ember, 2025b). Low-cost but high-quality electric vehicles suggest that the future of automobiles is electric (Stern, 2025).

Digitalisation and AI are amplifying these advances by making systems more adaptive and transparent. AI is optimising grid management, enabling predictive maintenance and supporting resilient agriculture production. Satellite and sensor networks allow real-time monitoring of ecosystems, emissions and risks, while blockchain is emerging as a tool for transparent flows in carbon and disaster-response finance. Taken together, these developments represent systemic change: lowering costs, creating synergies across sectors and opening pathways for EMDEs to leapfrog directly to cleaner and more efficient models of growth.

These technological shifts underpin what Stern (2025) describes as the new growth story of the 21st century – a development model where rapid innovation, large-scale investment, and system-wide transformation across energy, transport, urban planning, agriculture and industry drive sustainable, resilient and inclusive prosperity. Accelerated diffusion of clean technologies, supported by digitalisation and AI, is already reshaping global value chains, reducing costs and increasing productivity. Economic tipping points are emerging as renewables, electric mobility and other low-carbon solutions become cheaper and more accessible than fossil-based alternatives. For EMDEs, this represents not a constraint but a new engine of growth, offering opportunities to leapfrog outdated technologies, create high-quality jobs, enhance health and resilience, and expand fiscal space through reduced import dependence. The challenge now is to ensure that the gains of this transformation are broad-based – embedding resilience, inclusion and just transition policies so that the new growth story delivers prosperity for all.

Figure 2.1. The cost of electrotech is now lower than fossil fuels



Source: Recreated from Ember (2025b). Data from Ember (2025b), IRENA (2025a), BloombergNEF (2024)

Technology driving transformation across systems

Clean energy technologies are advancing faster than expected and form the foundation of decarbonisation. Solar, wind and energy storage are being deployed at scale, supported by smart and distributed grids. India has built gigawatt-scale solar parks, (Shah, 2020) while Chile is advancing green hydrogen (Ministry of Energy of Chile, 2022), and Brazil is a biofuel production pioneer (IEA, 2024b). E-mobility is accelerating. For example, in 2024 Mexico's electric vehicle (EV) output nearly doubled compared with 2023, and Vietnam is one of the fastest-growing electric two- and three-wheeler markets (REN21, 2025). Energy efficiency has emerged as the 'first fuel', with smart appliances and advanced materials reducing demand in households and industry (IEA et al., 2025; Numata et al., 2025). AI-enabled grid management could further improve the integration of renewables, with studies suggesting it could cut up to around 1.8 gigatonnes of CO_2 equivalent annually by 2035 (Stern et al., 2025). For EMDEs, the opportunity to leapfrog to modern energy systems is unprecedented – but seizing it requires access to affordable finance, technology and skills.

Adaptation technologies deliver some important economic returns. In India, for example, the app Farmer.Chat, which is linked to digital public infrastructure led by the government of India, provides extension agents and rural farmers with agricultural information that supports them to protect crops against droughts and disease, enhancing crop yields (Hamilton, 2024). Google's FloodHub now provides flood forecasts up to five days in advance in more than 80 countries, offering a glimpse of how digital tools can protect lives at scale (Matias, 2024). But limited connectivity, information, finance gaps and gender disparities still prevent millions of smallholders and vulnerable households from accessing these technologies. Technology needs to be coupled with strategic policies that reduce the gap between private innovation and socioeconomic needs.

Digital and bio-based innovations are transforming how ecosystems are managed and valued. Brazil's DETER satellite-based system allows real-time deforestation monitoring, underpinning policy enforcement (CPI, 2025a). In the steep terrain of Nepal, drones reseed degraded land (UNDP, 2024), while across Africa precision agriculture boosts yields with fewer inputs, and smart irrigation monitors soil moisture and saves water (Zaied and Okoth, 2025). In Eastern Africa, the regional initiative BioInnovate Africa focuses on using bio-based technologies to tackle socioeconomic challenges (Nature Finance and World Bioeconomy Forum, 2024). New bioeconomy industries have the potential to create new value chains: in Brazil, biotechnology applications are enabling new uses of the fruit açaí beyond its traditional commercialisation as pulp, including in natural dyes and cosmetics. The use of ingredients from native species in new markets promotes diversified value chains that utilise species to the fullest, increasing income and advancing circular economy practices (CPI, 2025b; Alavarsa-Cascales et al., 2022). Together, these examples illustrate how technology can make natural capital a driver of development rather than a casualty of climate change.

Urban innovation is becoming a decisive factor in whether cities drive climate solutions or compound risks. Smart grids and electrified public transport are cutting emissions, while mobility platforms in Bogotá and Lagos reduce congestion and air pollution (Hidalgo and Gutiérrez, 2013; LAMATA, 2022). Sometimes old technologies can be applied in new ways, as in the case of aerial cable cars in Medellín, Colombia, which connect marginalised neighbourhoods on hillsides with the mass transport system of the city, improving job access (Dávila and Daste, 2013; Stern, 2025). Adaptation measures such as green roofs and reflective materials are protecting residents from heat (C40 Cities, 2022), while AI-driven flood modelling is helping city authorities anticipate extreme events

(Jain et al., 2023). With two billion additional people set to live in cities by 2050 (UN DESA, 2019), scaling up such innovations will be critical for climate-smart urbanisation.

Technology can make responses to loss and damage faster and fairer. After Pakistan's 2022 floods, satellite mapping accelerated the targeting of relief. Digital twins (virtual models of an object, system or process) such as NVIDIA's Earth-2 now simulate the impacts of extreme weather in unprecedented detail, offering new opportunities to strengthen preparedness and reduce costs (Hoffmann et al., 2023).

A just transition depends on technology being used as a tool of empowerment. Inclusive design – such as solar-powered tools for women farmers, clean cooking solutions and digital finance platforms – ensures technology reduces inequality while boosting productivity. Building green innovation ecosystems and vocational training, especially for women and youth, will be vital to ensuring technology becomes a driver of inclusive development rather than exclusion.

The promise – and the risk of a widening divide

For EMDEs, the potential gains from these technological shifts are immense. A country building out its power sector today has the option to bypass coal or oil and instead deploy modern grids anchored in renewables, distributed storage and digital management. Transport systems can be electrified from the outset, avoiding decades of oil dependence and air pollution. Urban growth can be directed through smart planning, electrified public transport and climate-resilient infrastructure. Agriculture can benefit from mobile-based weather advisories, AI-driven crop management and biofertilisers that boost productivity without environmental damage. These pathways are not only cleaner: they are also cheaper, reduce import bills for fossil fuels, create domestic industries in clean technology and generate millions of jobs across manufacturing, installation, operation and services.

Yet access remains highly unequal. Clean-technology manufacturing is concentrated in a handful of economies, especially China, which accounts for more than 80% of global solar manufacturing capacity and over 70% of batteries (IEA PVPS, 2024; Lombardo et al., 2025). Dependence on such concentrated supply chains leaves EMDEs exposed to price volatility and trade disruptions. Some EMDEs are making efforts to position themselves as part of global cleantech supply chains and markets, such as India, which is working towards exporting solar panels. However, EMDEs often have to confront barriers in building domestic manufacturing capacity, including limited fiscal space and shortages of skilled labour (Stern, 2025). At the same time, large subsidy packages and local content requirements in advanced economies aim to attract massive private investment and production back to their markets, accelerating domestic clean-tech deployment – such as the United States' Inflation Reduction Act (IRA) (though some IRA funding disbursements are currently under temporary review or pauses) and the European Union's Net Zero Industry Act (NZIA). However, these policies risk diverting capital, manufacturing capacity and skilled labour away from EMDEs, exacerbating existing asymmetries in access to clean technology and green industrial opportunities. Domestic barriers in EMDEs further restrict uptake, from weak grids and digital infrastructure to shortages in skilled labour and the high cost of capital. One result is that Africa, despite holding 60% of the world's best solar potential, accounts for less than 1% of installed PV capacity (IEA, 2022). Without action to expand access, build skills and diversify supply chains, the technology revolution could deepen inequalities rather than drive inclusive development.

Enabling innovation, diffusion and resilient supply chains

Innovation and diffusion must go hand in hand. Global 'missions' for hard-to-abate sectors could accelerate breakthroughs, while regional hubs in Africa, Asia and Latin America would build capacity to manufacture and adapt technologies locally.

Finance is decisive for making technology affordable and investable. Concessional and blended finance can lower risks and costs, while MDBs can catalyse early-stage deployment and local innovation. Domestic capital markets – through green bonds, securitisation and risk-sharing facilities – also need to mobilise more resources for climate technologies.

Resilient supply chains are essential to securing affordable access. With most solar and battery production concentrated in China, global transitions are vulnerable to disruption. EMDEs can capture more value by investing in refining and processing critical minerals, such as cobalt in the Democratic Republic of the Congo or lithium in Latin America, and by moving up the value chain into assembly. Circular economy solutions, such as India's large-scale battery recycling or the EU's solar panel reuse schemes, can further reduce raw material demand while creating jobs.

Global governance must keep markets open and fair. Protectionist industrial policies risk fragmenting clean-tech markets. Cooperation through the World Trade Organization, G20 and climate forums is essential to maintain transparency, align standards and support fair technology transfer. Joint approaches to critical minerals, such as stockpiling and shared refining capacity, could help reduce vulnerabilities.

Human capital and inclusion are as important as hardware. Training workers for renewables installation and maintenance, expanding digital access in rural areas, and supporting women-led enterprises can ensure the transition delivers jobs and equity.

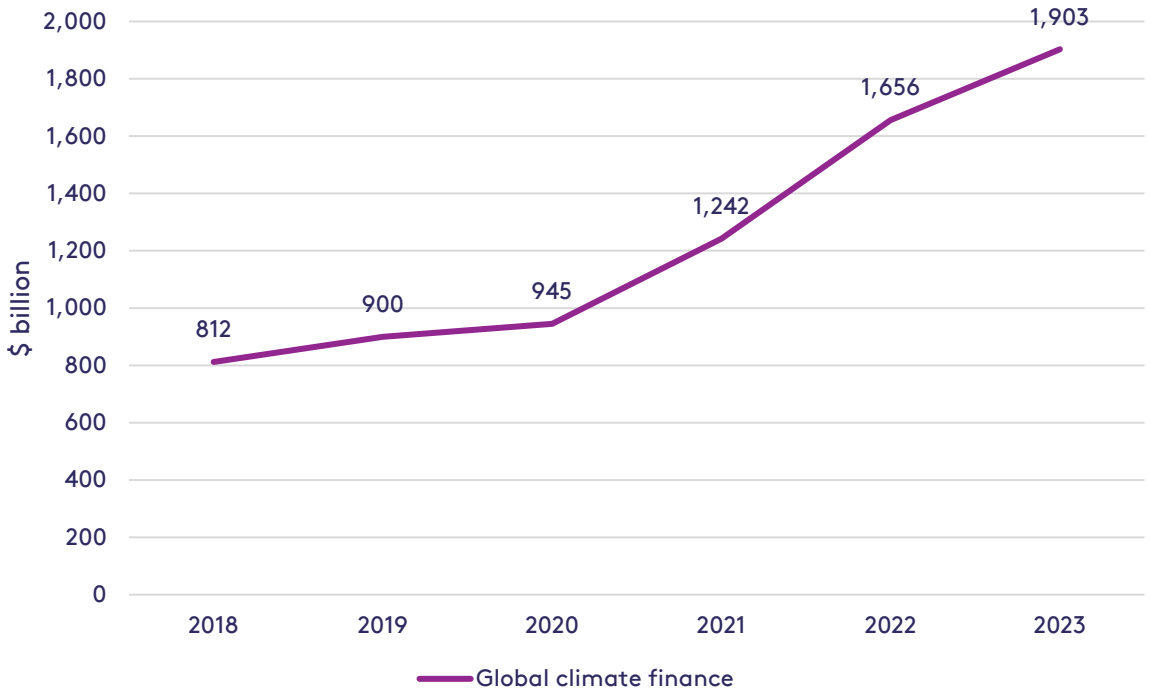
3. The state of climate finance and financing pathways

3.1. Where are we on climate finance?

The current landscape of climate finance

Global climate finance is increasing but is still far below what is needed. Climate finance flows have more than doubled since 2018, reaching a record high of $1.9 trillion in 2023 (approximately 1.8% of global GDP). Yet this remains only a fraction of the $6.3–6.7 trillion required annually by 2030 to meet Paris Agreement goals (Bhattacharya et al., 2024; Naran et al., 2025). At the same time, explicit fossil fuel subsidies have surged, doubling since 2015 and reaching $1.1 trillion in 2022 (IISD and OECD, 2025).

Figure 3.1. Evolution of global climate finance flows from 2018 to 2023 ($ billion)



Sources: Naran et al. (2025)

Finance remains unevenly distributed and heavily skewed towards mitigation and advanced economies (Naran et al., 2025). Most private investment continues to flow domestically within advanced economies and China, while international flows to other EMDEs remain minimal. Private finance has expanded overall but still falls far short of the scale required in EMDEs, with only a small fraction directed across borders. Households and firms drive much of this activity through investments in renewable energy and energy efficiency, underscoring the concentration of finance in markets with strong consumer demand, stable policy frameworks and developed capital markets. Meanwhile, public finance has come under growing pressure: official development assistance (ODA) and climate-related outflows have declined in real terms, and the composition of public finance remains heavily debt-based. Grants and concessional resources account for only a small share of global climate finance, leaving many climate-vulnerable countries reliant on

costly borrowing despite already high debt burdens. These patterns highlight a widening gap between where climate finance is most needed and where it is currently mobilised.

The latest official data on the delivery of the $100 billion climate finance goal (established at COP15 in 2009 and extended until 2025) cover the period up to 2022, as reported in the Organisation for Economic Co-operation and Development's (OECD) *Climate Finance Provided and Mobilised by Developed Countries* (OECD, 2024) and the UNFCCC's *Sixth Biennial Assessment* (SCF, 2024) (see Table 3.1). According to the OECD (2024), developed countries collectively provided and mobilised $115.9 billion in climate finance for developing countries in 2022, thereby meeting the $100 billion goal. This marked a 30% increase from 2021, reflecting steady growth across most channels. Multilateral development banks (MDBs) accounted for a large share of the increase, with climate finance from MDBs to low- and middle-income countries expanding by 226% between 2013 and 2022 (ibid.). Bilateral public finance, which was intended to form the backbone of the commitment, has grown more slowly and accounted for roughly one-third of total flows (ibid.). Private finance mobilised through public interventions also increased, reaching $21.9 billion in 2022, though it remains modest relative to needs (ibid.). Adaptation finance represented just 28% of total flows in 2022, and support to least developed countries (LDCs) and small island developing states (SIDs) remained limited in both share and per-capita terms (ibid.).

While comprehensive global data beyond 2022 are not yet available, early signals point to strong multilateral momentum and only moderate growth in bilateral flows. MDB climate finance reached a record $125 billion in 2023 (of which $74.7 billion went to low- and middle-income countries), then rose a further 10% to $137 billion in 2024, with $85.1 billion for low- and middle-income countries (AfDB et al., 2025). MDB-mobilised private co-finance also jumped 33% in 2024 (and 16% in low- and middle-income countries) (ibid.). At COP29, MDBs collectively pledged to increase this further to $120 billion a year by 2030 for low- and middle-income countries, including $42 billion for adaptation and $65 billion mobilised from the private sector, a trajectory consistent with the 2024 outturn. On the bilateral side, available country group updates suggest only modest increases: EU institutions and Member States report public climate finance of €28.6 billion in 2023 and €31.7 billion in 2024 (around 11%) (European Council, 2024), while US international public climate finance rose from $5.8 billion in FY 2022 to more than $9.5 billion in FY 2023 (White House, 2023). However, recent political shifts in Washington have introduced uncertainty over future disbursements and policy continuity, with changes under the new administration slowing or reversing progress on US climate-finance commitments.

Preliminary data released by the OECD in October 2025 suggest that aggregate climate-finance flows in 2023 remained broadly in line with 2022 levels, reflecting steady engagement by developed countries in meeting their commitments and sustaining leadership on climate finance (OECD, 2025a). While comprehensive OECD accounting for 2023–2024 is not yet available, early updates point to a moderate uptick in bilateral flows, a large increase in MDB finance, and a notable step-up in private finance mobilised via MDBs (building on the OECD-tracked rise in mobilised private from $14.4 billion [2021] to $21.9 billion [2022]). Overall, while the $100 billion target has been achieved in aggregate terms, enhancing the quality of finance, including its concessionality and accessibility (see Section 3.3), will be key priorities for the post-2025 climate finance framework.

Table 3.1. Assessment of finance provided and mobilised by developed countries for climate action in developing countries ($ billion)

Source	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Public finance from developed countries provided via bilateral, regional and other channels										
Biennial assessment (BA), 2022, 2024[1]	23.1	23.9	29.9	33.6	28.1	31.8	31.7	31.9	34	42.7
OECD, 2024	22.5	23.1	25.9	28	27	32	28.7	31.4	34.5	41
Officially supported export credits from developed countries										
BA, 2024	Not reported separately									
OECD, 2024	1.6	1.6	2.5	1.5	3	2.7	2.6	1.9	2.1	2.4
Public climate finance attributed to developed countries provided via multilateral channels										
BA, 2016, 2018, 2020, 2022, 2024[3]										
Multilateral climate funds (including UNFCCC funds)	1.9	2.5	1.4	2.4	2.2	3.1	3.5	3.8	4.1	3.3
MDB climate finance	14.9	16.6	17.4	19.7	24.1	25.8	30.5	33.2	30.5	33.2
OECD, 2024	15.5	20.4	16.2	18.9	27.1	30.5	34.7	36.9	38.7	50.6
Total public climate finance provided by developed countries										
BA (aggregated based on data reported in the BA as above)	39.9	43	48.7	55.7	54.4	60.7	65.3	68.1	n/a	79.2
OECD, 2024	39.5	45.1	44.6	48.5	57.1	64.8	66	70.2	75.3	94
Private climate finance mobilised by developed countries										
BA, 2024[3]	12.8	16.7	13.2	15.7	19.8	25.6	21.7	22.7	25.9	33.7
OECD, 2024	12.8	16.7	n/a	10.1	14.5	14.7	14.4	13.1	14.4	21.9
Total climate finance mobilised by developed countries										
BA (aggregated based on data reported in the BA as above)	52.7	59.7	61.9	71.4	74.2	86.3	87	90.8	n/a	112.9
OECD, 2024	52.4	61.8	n/a	58.5	71.6	79.9	80.4	83.3	89.6	115.9

Sources/notes: **1.** Table 2.7, p.89, 2022 BA Technical report for period 2013-2020, and Table 2.1., p.74, 2024 BA Technical report for period 2019-2022. **2.** Fig. 1, p.5 of BA's Summary and Recommendations for 2013-2014 (2016); Fig. 1, p.6 in BA's Summary and Recommendations for 2015-2016 (2018); Fig. 2, p.8, the BA's Summary for 2017-2018 (2020); Fig. 2, p.9 of BA's Summary for 2019-2020 (2022); Fig. 2, p.11 of BA's Summary and Recommendations for 2019-2022 (2024). **3.** BA, 2022 includes mobilised private climate finance by the MDBs and by bilateral, regional institutions.

Developments in the formal climate negotiations

At COP29 in 2024, Parties adopted a New Collective Quantified Goal (NCQG) on climate finance to replace the $100 billion goal. The NCQG, grounded in Article 9 of the Paris Agreement, aims to "significantly scale up climate finance to support mitigation and adaptation and contribute to making financial flows consistent with low-emission, climate-resilient development". It reaffirms all aspects of Article 9, including commitments to provide and mobilise climate finance from all sources, enhance access, achieve balance between mitigation and adaptation, and address systemic barriers such as high costs of capital.

The NCQG establishes a new framework with three key quantitative elements:

- **A collective goal for developed countries to take the lead in mobilising at least $300 billion per year by 2035** for climate action in developing countries:

  *Reaffirms, in this context, Article 9 of the Paris Agreement and decides to set a goal, in extension of the goal referred to in paragraph 53 of decision 1/CP.21, **with developed country Parties taking the lead**, of **at least USD 300 billion per year by 2035** for developing country Parties for climate action:*

  *(a) **From a wide variety of sources**, public and private, bilateral and multilateral, including alternative sources;*

  *(b) **In the context of meaningful and ambitious mitigation and adaptation action, and transparency in implementation;***

  *(c) Recognizing the voluntary intention of Parties to count **all climate-related outflows from and climate-related finance mobilized by multilateral development banks** towards achievement of the goal set forth in this paragraph.*

  (UNFCCC, Decision 1/CMA.6, paragraph 8, emphasis added)
- **A call to scale up total finance from all sources to at least $1.3 trillion annually by 2035**, reflecting the full spectrum of public, private, and innovative flows:

  Calls on all actors to work together to enable the scaling up of financing to developing country Parties for climate action from all public and private sources to at least USD 1.3 trillion per year by 2035. (UNFCCC, Decision 1/CMA.6, paragraph 7)
- **A commitment to at least triple annual outflows from the operating entities of the UNFCCC Financial Mechanism by 2030** relative to 2022 levels:

  *Decides that a significant increase of public resources should be provided through the operating entities of the Financial Mechanism, the Adaptation Fund, the Least Developed Countries Fund and the Special Climate Change Fund and also decides to **pursue efforts to at least triple annual outflows from those Funds from 2022 levels by 2030 at the latest** with a view to significantly scaling up the share of finance delivered through them in delivering on the goal contained in paragraph 8 above.*

  (UNFCCC, Decision 1/CMA.6, paragraph 16, emphasis added)

The NCQG is embedded in a stronger accountability architecture than its predecessor. It is linked to the Enhanced Transparency Framework (ETF), mandates biennial progress reviews by the Standing Committee on Finance (SCF), and ties delivery to the Global Stocktake. The decision also introduces the ***Baku to Belém Roadmap to 1.3T*** (UNFCCC, Decision 1/CMA.6, paragraph 27), which sets milestones through to COP30 and beyond to operationalise the NCQG – calling for at least tripling UNFCCC fund outflows, scaling up concessional and grant-based finance, strengthening adaptation support, and improving access for LDCs and SIDs.

The $300 billion goal builds on – but differs substantially from – the $100 billion commitment (see Table 3.2). It represents a collective *floor*, not a ceiling, and broadens

the scope of contributors and flows. While developed countries remain responsible for taking the lead, other Parties may make voluntary contributions without that affecting their recipient status. The NCQG also explicitly includes all outflows from MDBs and mobilised private finance, whereas earlier accounting methods only attributed a share of MDB finance to developed-country shareholders. By embedding the goal in the ETF, the new framework ensures greater transparency and consistency in tracking, though discussions continue on how to classify 'grey zone' flows such as catalytic private investments driven by policy reforms, Article 6 carbon-market revenues and solidarity levies.

The $1.3 trillion target goes beyond the $300 billion goal in scope and ambition. It encompasses the full range of finance for climate action in developing countries – including public, private, philanthropic, household and alternative mechanisms – recognising that achieving the Paris goals will require financing at an order of magnitude consistent with global investment needs. While the $300 billion target provides a measurable baseline for public and mobilised finance, the broader call acknowledges the importance of leveraging *all sources* and signals a shift from *mobilisation targets* to *systemic transformation* of global finance. The underlying principle is that public resources must be used strategically to unlock much larger volumes of private and blended investment – the 'billions to trillions' transition – through more effective coordination among all actors.

The NCQG decision foresees that by 2027, Parties will reach consensus on the scope and methodologies for tracking the $300 billion goal and initiate pilot approaches for both quantitative elements ahead of the first progress report due in 2028. Technical work will focus on clarifying the treatment of multilateral flows, voluntary contributions and grey-zone categories, while engaging data providers and financial institutions to build a consistent evidence base for the $1.3 trillion target. Establishing a robust monitoring framework will require improved data quality, comparability and transparency. Activity-level data will be essential for accurately tracking the $300 billion goal and avoiding double counting, while the broader $1.3 trillion target may be assessed through aggregate indicators that capture overall trends. In parallel, greater attention will be needed to monitor not only the volume but also the *effectiveness* of finance: its accessibility, alignment with country priorities and implications for debt sustainability (Falduto and Jachnik, 2025).

There remains significant debate about what the NCQG does cover and what it does not. The *scope and boundaries* of both the $300 billion goal and the $1.3 trillion scale-up call are still being clarified, with 'grey zones' between them (ibid.). Questions persist on how to treat multilateral outflows, voluntary contributions, catalytic private finance, Article 6-related revenues and solidarity levies. These definitional and measurement issues will determine how progress is tracked and compared over time, and are critical to ensuring transparency, accountability and trust in implementation. The Baku to Belém Roadmap thus provides both a near-term implementation track and a foundation for a more comprehensive post-2025 climate-finance framework.

Table 3.2. Comparing the $100 billion goal, $300 billion goal and $1.3 trillion target

Feature	$100 billion goal (2009–2025)	$300 billion goal (NCQG by 2035)	$1.3 trillion target (by 2035)
Legal basis	Agreed in the *Copenhagen Accord* (COP 15) and reaffirmed in *Decision 1/CP.21*, para. 53, under Article 9 of the Paris Agreement	Established in *Decision 1/CMA.6 (New Collective Quantified Goal on Climate Finance)* adopted at COP 29 (Baku)	Also contained in *Decision 1/CMA.6 (NCQG)*, para. 7 ("Calls on all actors ... to scale up financing ... to at least $1.3 trillion per year by 2035")
Contributors	Developed countries only	Developed countries 'take the lead'; other Parties may contribute voluntarily	All actors and sources (public and private, bilateral and multilateral, including alternative sources) are called upon to contribute to the scale-up
Scale	$100 billion per year by 2020 (extended until 2025); met in 2022	At least $300 billion per year by 2035 (para. 8) – a collective floor with developed countries leading	At least $1.3 trillion per year by 2035 (para. 7)
Scope of flows	Public and private, bilateral and multilateral flows; assessments typically counted only MDB finance attributable to developed-country shares	Same categories of flows (para. 8a), but explicitly "recognizing the voluntary intention of Parties to count all climate-related outflows from and finance mobilized by MDBs" (para. 8c); broader treatment of grant-based and concessional finance for adaptation (para. 14)	Full spectrum of finance for climate action in developing countries, including public, private, philanthropic, household and solidarity mechanisms (para. 7 read with preambular text)
Balance of finance	Predominantly mitigation-focused; adaptation finance remained under 30% of flows in 2022	Explicit reference to both mitigation and adaptation (para. 8b); further decision (para. 16) to "pursue efforts to at least triple annual outflows from the operating entities of the Financial Mechanism ... by 2030 at the latest," supporting a better balance	Encompasses all uses of finance for climate action and resilience – including mitigation, adaptation, loss and damage, just transitions and nature – to meet overall investment needs
Accountability/ transparency	No direct link to the Paris Agreement Enhanced	Embedded in the ETF; biennial progress reports by the SCF from 2028	Broader and more aggregated in scope; progress to be guided by

	Transparency Framework (ETF); progress tracked ex post through OECD and UNFCCC Standing Committee on Finance (BA)	onwards (para. 30); linked to the Global Stocktake and subject to periodic reviews (para. 36)	the *Baku to Belém Roadmap to 1.3T* (para. 27), with additional methodological work and indicators to be developed under the SCF
Key ambiguities/ outstanding issues	Scope of 'mobilised' finance, degree of concessionality and grant share	Voluntary contributions from other Parties; treatment of all MDB outflows and mobilised finance; methods to avoid double-counting (para. 8c)	Attribution of 'grey-zone' flows – such as catalytic private investment from policy reforms, Article 6 market revenues, or solidarity levies – and their relationship to the narrower $300 billion goal

3.2. Investment priorities and financing pathways

What do we need for climate finance by 2035?

The $1.3 trillion of external finance target by 2035 is anchored in the investment and spending needed to deliver on the Paris Agreement climate goals and related development goals by 2035. By our estimate, climate and related development spending in EMDEs (other than China) needs to grow six-fold from about $550 billion in 2022 to $3.2 trillion by 2035, a compound growth rate of about 15%. The current system is unlikely to deliver such growth. It may be able to make inroads in selected sectors and selected countries, but it will leave large gaps.

The $3.2 trillion figure is derived from the assessment of the investment priorities described in Chapter 2 and is summarised in Table 3.3 and Figure 3.2:

- **Accelerating the clean energy transition – $2.05 trillion per year by 2035:** this includes renewable and other low-emissions energy generation; grids and storage; energy efficiency, electrification and decarbonisation of demand (including transport, buildings and industry); and low-emission fuels and carbon capture.
- **Adaptation and resilience – $400 billion per year by 2035:** this includes investments to protect against coastal and inland flooding, building resilience in key sectors including infrastructure and agriculture, disaster risk reduction and private sector resilience, both corporate and household. Estimating adaptation investment requirements is inherently challenging, given the diversity of physical risks, the wide range of adaptation measures, and the dependence of costs on local conditions and institutional capacity. Nevertheless, the UNEP Adaptation Gap Report and related modelling efforts have provided progressively refined estimates of the scale of investment needed to build climate resilience. While other studies present varying figures, these estimates broadly converge within a similar range.
- **Coping with loss and damage – $350 billion per year by 2035:** this includes both reconstruction costs and social impacts. There is some uncertainty on these costs both because of uncertainty about the incidence of future shocks and the impacts of slow onset effects.
- **Protection and restoration of natural capital – $350 billion per year by 2035:** this includes spending to protect forests and biodiversity corridors, restore degraded land,

soils, watersheds and freshwater systems, protect coastal ecosystems and foster urban nature and green infrastructure.

- **Fostering a just transition – $50 billion per year by 2035:** countries will face differential adjustment costs given the nature of their transition to a low-carbon, climate-resilient, nature-positive economy. These costs can only be assessed once there are well articulated transition plans with assessment of impacts on people and places. Our estimate is currently based on the limited country evidence we do have.

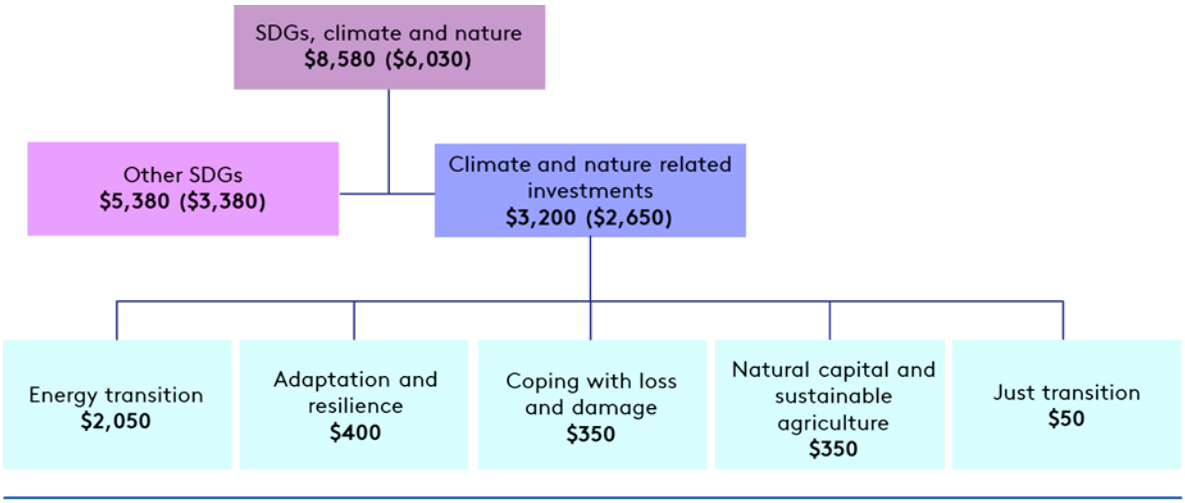
Table 3.3. Climate investment needs in EMDEs other than China in 2035 ($ billion)

Category	Sub-category	Investment needs ($ billion)
Clean energy transition	Renewable and other low-emissions power generation	700
	Grids and storage	350
	Efficiency and electrification	850
	Low-emissions fuels and carbon capture, usage and storage (CCUS)	150
	Total	*2,050*
Adaptation and resilience	Agriculture, water and land management	40
	Resilient infrastructure	65
	Coastal protection and management	30
	Disaster risk management	55
	Protected ecosystems	5
	Health and social protection	40
	Institutional capacity, enabling factors, and inclusion	Not quantified
	Private sector resilience (indicative)	165
	Total	*400*
Loss and damage		*350*
Natural capital	Degraded land and soils	150
	Forests and biodiversity corridors	125
	Watersheds and freshwater systems	20
	Coastal ecosystems	35
	Urban nature and green infrastructure	20
	Total	*350*
Just transition		*50*
Total		3,200

Note: Estimates on the clean energy transition are based on analysis by the International Energy Agency (IEA), adapted to the IHLEG country coverage and timeframe. Estimates on adaptation and resilience were provided by the UNEP Adaptation Gap Report Finance team (UNEP, 2025) based on data from the ECONOGENESIS and ACCREU projects. Estimates on natural capital are based on Center for Global Commons and Systemiq (2025).

Figure 3.2. The investment imperative for EMDEs other than China for 2035

Investment/spending requirements for climate and sustainable development
($ billion per year by 2035, increment from current in parentheses)



Source: Authors' calculations

The characteristics of the investment and the country context will determine the scale and type of finance needed, given that:

- The type of investment influences its potential for financing by public and/or private sources
- The appropriate structure of finance reflects investment revenue streams, risks and payback periods
- Country creditworthiness affects access to and cost of capital.

While the formulation of the pathways to the $1.3 trillion target focuses on external finance, it is important to note that domestic finance plays a core anchor role in the mobilisation of external finance. Moreover, creditworthiness will be a key determinant of the ability to attract private finance.

There are three attributes that determine the type of financing required:

- Who undertakes the investment: in the period ahead, a major shift is anticipated in who is undertaking the investment, with the private sector playing a dominant role. Public investment is expected to account for just over $1.1 trillion or somewhat more than one-third of the $3.2 trillion in total investment by 2035. Private corporates, principally domestic, are projected to account for $1.4 trillion and households for $650 billion. Public investments will be principally covered by budget outlays, but some investments can be supported by DFIs and even the private sector. Private corporate investments can be autonomously financed by the private sector where there is a clear commercial rate of return. But many private investments may require blended finance. Households are significant investors in the energy transition but also in resilience and natural capital and are on the frontline in coping with loss and damage. Some of this spending will be covered by self-financing but some can be covered by bank credit and some will require support from public budgets.
- The revenue streams and time horizons: the different priorities of investments and their sub-categories (see Table 3.3) have different characteristics in terms of their revenue streams, risks and payback periods. Some will generate a commercial rate of return,

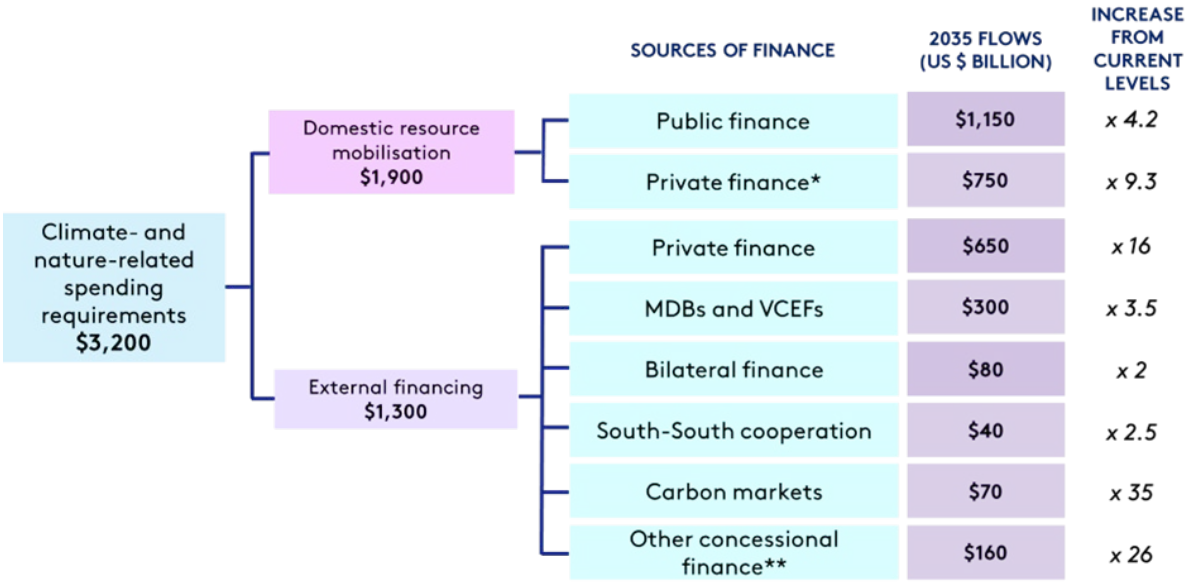
some will entail actual and perceived risks that would require blended finance, and some may not generate an adequate revenue stream even if they have strong economic benefits, which means concessional finance would be required.

- **The creditworthiness and therefore access of countries to international capital markets:** there is wide variation in creditworthiness among EMDEs that affect both the access and cost of private finance. Nineteen EMDEs accounting for 44% of EMDE GDP are classified as investment grade. These countries enjoy the best borrowing terms but nevertheless, except for a few, face higher borrowing costs than advanced economies. Another 72 countries are classified as non-investment grade or speculative and have much higher borrowing costs. Forty-eight countries are not rated or classified: most of these are poor and climate-vulnerable countries with very limited access to private finance.

These characteristics of the types of investment and of borrowing countries will determine the kind of finance that is best suited to support specific investments in different countries. On the supply side, there are a range of financing sources, domestic and international. Domestic financing sources consist of public finance, domestic financial markets, national development banks (NDBs) and self-financing by corporates and households. International sources consist of bilateral finance from rich (Annex 1) countries as well as South–South cooperation, concessional and non-concessional finance from MDBs and vertical climate funds, cross-border private finance, and new sources of low-cost finance such as special drawing rights (SDRs), debt swaps, solidarity levies, innovative blended finance and private philanthropy.

Figure 3.3 illustrates the potential mix of financing required to meet investment needs of $3.2 trillion in EMDEs (other than China) by 2035, showing the division between domestic resource mobilisation and external financing, each further broken down into their respective sub-sources. The different sources of finance vary in their concessionality and tenor and therefore their suitability to support different types of investment need varies too. There are also important potential synergies between the different pools of finance.

Figure 3.3. Mobilising the necessary financing to $1.3 trillion for EMDEs (other than China) by 2035



Notes: *'Private finance' includes self-financing by households; **'Other concessional' includes SDRs, debt swaps, voluntary levies and private philanthropy. Source: Authors' calculations

We assess that $1.9 trillion (around 60%) of the financing needed for the $3.2 trillion of climate and related development investment by 2035 is expected to come from domestic resources:

- **Domestic public finance is expected to contribute about $1.15 trillion (around 60% of domestic resources).** Governments will have to take responsibility for most spending in sub-sectors where revenue is minimal: nature-related spending, loss and damage and just transition. In addition, public finance will anchor investments in long-term infrastructure, including for resilience, and can be used to leverage other sources of finance.
- **Domestic private finance is expected to contribute $750 billion (around 40% of domestic resources),** mainly from domestic financial markets and from self-financing by corporates and households. Domestic finance will be critical to laying the foundations for unlocking investment opportunities and attracting external finance. National development and commercial banks will have a key role in project origination. Securitisation that can attract institutional capital must also start at the local level. Countries with more mature local financial markets will have a greater share of domestic private finance.

We further assess that $1.3 trillion (around 40%) will need to come from external finance each year by 2035:

- **Given the growing share of private investment and the large potential from global institutional capital, private finance can make the largest contribution to meeting the $1.3 trillion goal – about $650 billion (50% of external finance).** This will require a concerted effort to create the necessary conditions and tackle the cost of capital. A much more structured approach will be needed to mobilise private finance in new and more effective ways. External private finance would need to increase more than 15-fold from current levels by 2035, with a quarter of this requiring some form of blended finance.
- **International public finance led by developed countries must constitute the foundation of the $1.3 trillion goal based on the NCQG decision – about $650 billion (50% of external finance):**
  - **Financing from multilateral sources** – MDBs and VCEFs – will need to at least triple to reach $300 billion by 2035 (46% of international public finance) given their critical direct and catalytic role, with reasonable pathways to achieve this expansion.
  - **Financing from concessional sources and low-cost finance** will need to reach $350 billion by 2035 (54% of international public finance):
    - **Bilateral climate finance** must at least double by 2035 to reach $80 billion by 2035 (23% of concessional and low-cost finance).
    - **South–South cooperation** is also poised to make a much larger contribution and could reach $40 billion per year by 2035 (11%), given the leadership of many large emerging markets in the energy transition and infrastructure space.
    - **Carbon markets,** which so far have been insignificant, could play a much larger role with the efforts now underway under Article 6 of the Paris Agreement and more broadly to revitalise them, to reach $70 billion per year by 2035 (20%) – increasing 35 times from current levels.
    - **A major push on new and innovative sources of finance** could help fill the gap in concessional and low-cost finance, including through SDRs, debt swaps, voluntary levies and private philanthropy – potentially contributing around $160

billion by 2035 (46% of international public finance). This will require concerted effort, coalitions of willing countries, and leadership from major countries, both developed and emerging markets.

Mobilising $1.3 trillion per year in external finance for EMDEs (other than China) by 2035 will require a major expansion of traditional sources of climate finance as well as new and innovative sources of capital. Table 3.4 provides indicative ranges for the different sources of external finance that together could contribute to meeting this target, with the ranges for each type providing an indication of their potential contribution; some are subject to more uncertainty than others.

Table 3.4. Financing pathways to $1.3 trillion for EMDEs (other than China) by 2035

	2022 ($ bn)	2035 (range; $ bn)
Source of finance		
External private finance		
Mobilised	25	90–150
Direct	15	300–700
Multilateral climate finance		
MDB concessional	20	50–75
MDB regular windows	60	160–240
Multilateral climate funds	3	6–10
Concessional and low-cost finance		
Bilateral official climate finance	42	60–100
South–South cooperation	17	30–60
Carbon markets	2	30–140
Other concessional finance		
Voluntary levies	0	20–110
SDRs	2	5–20
Innovative blended finance	0	10-20
Debt swaps	1	5–10
Private philanthropy	3	5–20
Total	**190**	**770–1,655**

Source: Authors' calculations

The big investment push required has three central implications:

- **First, the path to achieving the $1.3 trillion target cannot be achieved without a major expansion of private finance**. This requires a clear action agenda to connect large pools of capital with investment opportunities in EMDEs, while addressing high costs, risks and uneven quality of capital.
- **Second, development finance must be a cornerstone of the system, both through direct financing and by catalysing much larger flows**. MDBs, DFIs and other development institutions are essential to lowering risks, mobilising private investment, and aligning finance with long-term development goals.
- **Third, concessional finance, though smaller in volume, is indispensable**: it supports the poorest and most climate-vulnerable countries, is necessary for activities with high

returns but where revenue streams are difficult to realise, and plays a catalytic role in unlocking other sources of capital.

With a concerted and coordinated effort, there is an entirely feasible path to mobilising $1.3 trillion by 2035 from external sources of public and private finance to boost economic development and climate action in EMDEs (other than China). Taken together, these measures form a coherent roadmap from ambition to delivery: one that aligns investment, policy reform and financing flows in a mutually reinforcing cycle, enabling EMDEs to seize the growth opportunities of the green transition while building resilience and protecting the planet. Mobilising the investment and its finance will not be easy. But the alternative, failing to deliver on the Paris Agreement, would be much more difficult. Drifting and stumbling towards an unsustainable world, which would be catastrophic for many, should not be regarded as a 'realistic option'.

Many suggestions on possible mechanisms and sources of financing were provided in the submissions received in the course of the deliberations on the *Baku to Belém Roadmap to $1.3T*. Particularly emphasis was paid to direct budget contributions, noting that achieving the 0.7% target could generate close to $200 in additional finance. Other suggestions included:

- **Improved rechannelling and new issuances of SDRs** (potentially $100–500 billion per year).
- **Carbon pricing or tax mechanisms** (ranging from $20–4,900 billion depending on the rate applied and participating economic actors and locations).
- **Fees on aviation or maritime transport** (ranging from $4–223 billion depending on the rates applied and whether to ticket fees, fuel consumption or other units).
- **Taxes on sales of specific goods** (ranging from $34–112 billion depending on the share and participation of different sectors).
- **Financial transactions taxes** (ranging from $105–327 billion depending on the rate applied to equity, bond and derivative markets and participating locations).
- **Minimum corporate taxes** (ranging from $165–540 billion depending on the rate applied under international coordinated frameworks).
- **Wealth taxes** (ranging from $200–1,364 billion depending on the rate applied at different income thresholds).

Some submissions assume that all funds raised would go to developing countries, while others – such as tax or levy proposals – depend on how revenues are shared. Many lack annual estimates to 2035, relying on short-term data to 2030, underscoring the need for immediate action to ease fiscal constraints and scale up climate investment.

While there may be significant potential sources of finance, securing political agreement among willing coalitions will be necessary, including on the share of proceeds allocated to supporting developing countries, and the specific mechanisms remain to be determined.

3.3. Enhancing the quality of climate finance

Meeting the Paris Agreement goals is not only about how much finance is mobilised but how much *impact* it delivers. The quality of climate finance depends as much on the effectiveness of its supply as on the effectiveness of its use, i.e. how well finance delivers equitable, durable results on the ground in addition to how affordable, accessible, predictable and transparent it is. Low-quality finance can worsen debt burdens, bypass vulnerable groups, or support projects that harm livelihoods and ecosystems. In contrast, well-designed, concessional and locally-led finance lowers costs, builds trust and mobilises

additional investment. Quality determines whether climate finance drives real transformation or simply perpetuates existing inefficiencies. Without it, even large sums risk doing more harm than good; with it, each dollar can drive inclusive and lasting climate action.

Current shortfalls in quality

Despite progress in scaling up volumes, current finance flows still fall short across key dimensions of quality:

- **Affordability remains a binding constraint.** Most international public climate finance continues to be delivered as loans, often on non-concessional terms, even though many vulnerable economies already face severe debt stress (Naran et al., 2025). The small share of grants restricts fiscal space, raises capital costs and in some cases makes low-carbon projects less competitive than high-carbon incumbents.
- **Gaining access is cumbersome and slow.** Many LDCs and SIDs face multi-year delays in securing finance because of complex accreditation procedures, fragmented financing windows and limited technical capacity (Caldwell and Larsen, 2021; CFAS, 2021; Garschagen and Doshi, 2022). Direct access entities remain scarce and under-resourced, while dedicated windows for disaster response rarely disburse at the speed required. These barriers prevent finance from reaching countries and communities with the greatest need and the highest marginal returns.
- **Predictability is weak.** Commitments frequently exceed actual disbursements, eligibility rules shift over time, and funding cycles are too short to underpin multi-year planning. This lack of reliability undermines governments' ability to develop long-term investment frameworks or pipelines, while also discouraging private co-financing. Lack of forward visibility on finance flows reduces the credibility of commitments under the Paris Agreement.
- **Transparency and accountability are uneven.** Definitions of what counts as climate finance vary widely, reporting methodologies differ across providers, and project-level data are often incomplete. This leads to overstated figures in some cases and prevents like-for-like comparison. Without credible disclosure on terms, disbursements and outcomes, trust between providers and recipients is eroded and opportunities for learning are lost.
- **Local delivery is underused.** Only a small fraction of international climate finance flows to local actors, such as local governments, civil society organisations and community institutions, despite evidence that these stakeholder groups are often best placed to identify need, reach vulnerable groups and deliver lasting results (Soanes et al., 2017; OECD, 2025b). The shortfall is especially pronounced in adaptation finance, where local knowledge is decisive for success.
- **Equity considerations are too often overlooked.** Insufficient attention to equity – including for women, youth, Indigenous peoples and other marginalised groups – undermines both inclusion and the durability of outcomes. Climate finance is still treated as gender-neutral, even though ignoring local norms can reduce uptake, exclude beneficiaries or even cause harm. For example, in Uganda, a wetlands restoration programme that gave women cows and farmland backfired when local norms dictated that men own cattle, leading to dispossession and an increase in gender-based violence (Clugston et al., 2024). Cases like this show how neglecting social and cultural contexts can erode trust and weaken resilience.
- **Impact measurement is limited.** Many projects report inputs rather than outcomes, and few track resilience gains, distributional impacts or co-benefits alongside emissions reductions. The absence of common indicators and systematic feedback loops makes it difficult to identify what works, scale up success or avoid repeating mistakes.

Areas of progress

Despite persistent shortfalls, there are signs that reforms are beginning to address aspects of quality.

Affordability is starting to be tackled through concessional innovations. At the 2024 Spring Meetings, the World Bank approved the Framework for Financial Incentives (FFI), supported by the Livable Planet Fund, to mobilise concessional resources for projects addressing global challenges, including climate change. Climate-resilient debt clauses – now expanded to all eligible countries – give vulnerable states breathing space after major shocks. Debt-for-nature and -climate swaps in Belize and Ecuador show how debt relief can be linked with conservation, though high transaction costs, reliance on offshore structures, and limited community participation mean they must be redesigned to deliver systemic benefits (Chandrasekhar and Quiroz, 2024). Some bilateral donors, such as Canada – which doubled its climate finance to $5.3 billion for 2021–26 and raised grants from 30% to 40% (Government of Canada, 2025) – are increasing the share of grants in their climate finance mix, but such cases remain exceptions.

Access is improving through new initiatives. The Taskforce on Access to Climate Finance has piloted new modalities in pioneer countries such as Bangladesh, Fiji and Rwanda, embedding technical expertise and promoting multi-year, programmatic approaches (Center for Access to Climate Finance, 2025). Its *Principles and Recommendations on Access*, now reflected in the NCQG, are beginning to shape international norms (UK Government, 2021). Building on this, the new Center for Access to Climate Finance, hosted by the NDC Partnership as a response from Taskforce members for a dedicated body for thought leadership exchange on climate finance access, is sharing best practice, facilitating South–South learning, and generating evidence to inform system-wide reform. Multilateral funds are experimenting with simplified approval processes and new communities of practice to strengthen direct access entities.

Transparency is being strengthened, though unevenly. The UNFCCC's Enhanced Transparency Framework (operational since COP28) requires more standardised reporting of finance provided and received. MDBs have agreed a 'Common approach to measuring climate results', aligning indicators for mitigation, adaptation, mobilisation and co-benefits (ADB et al., 2024). These efforts represent progress towards comparability and learning, but implementation is partial and many providers still use divergent methodologies, limiting accountability.

Impact and speed can be combined. The Energy Access Relief Facility provided highly concessional support at pace to off-grid companies in sub-Saharan Africa during the COVID-19 pandemic, sustaining essential services while embedding impact metrics. The Amazon Fund has demonstrated how results-based payments linked to verified reductions in deforestation can drive systemic change, though its model depends heavily on strong national institutions. The new Fund for Responding to Loss and Damage (FRLD) is exploring rapid-disbursement mechanisms to release finance within days of a disaster, and the Integrity Council for the Voluntary Carbon Market (ICVCM) has set high-integrity standards to guide credible private flows.

Systemic reform is underway but needs to be scaled up. Each of these examples shows that well-designed finance can lower costs, accelerate delivery and build trust. Yet most remain partial, fragmented or pilot-scale. The challenge is now to mainstream them across the finance system so that quality is embedded as a core feature of the new climate finance architecture, rather than treated as a peripheral add-on.

Strategic priorities for enhancing the quality of climate finance

This section outlines an action agenda for the main strategic priorities to enhance the quality of climate finance. While affordability is a central pillar of quality (through concessional terms, guarantees, climate-resilient debt clauses and innovative sources of concessional finance), it is not covered here to avoid duplication, as these issues are addressed in detail in later chapters (see, for example, Section 5.4 on concessional finance and innovative options). Similarly, we reference some aspects of access but detailed discussions of country platforms, accreditation reform and simplified procedures by multilateral funds are taken up elsewhere in the report. The focus here is therefore on complementary priorities.

Table 3.5. Strategic priorities and action agenda to enhance the quality of climate finance

Improve access to climate finance, particularly for LDCs and SIDs*
• **Institutionalise simplified approval and disbursement procedures** across multilateral funds, including rapid-disbursement windows for loss and damage and disaster response.
• **Expand and implement country platforms and direct access entities with predictable multi-year envelopes,** supported by technical assistance to develop and manage pipelines.
• **Adopt and operationalise the Multidimensional Vulnerability Index (MVI)** to guide allocation based on real climate risks, not income alone.
• **Build institutional capacity** for national and local actors to prepare, implement and report on finance more effectively.
Enhance predictability and forward visibility
• **Expand the use of programmatic, multi-year funding envelopes** with clear disbursement schedules.
• **Require providers to disclose forward-looking pipelines of approved projects and planned allocations.**
• **Strengthen mechanisms to track and close gaps between commitments and disbursements,** with reporting under the Enhanced Transparency Framework.
• **Align allocation with long-term national climate strategies and NDC investment frameworks** to provide certainty for governments and co-financiers.
Embed equity, ownership, and local leadership
• **Set benchmarks for the share of climate finance reaching local actors and communities,** with emphasis on LDCs and SIDs.
• **Require disaggregation of finance outcomes** (e.g. by gender, income and region) to track inclusiveness.
• **Integrate equity considerations into planning, budgeting and monitoring,** including regarding gender, youth, Indigenous peoples and other marginalised groups.

- **Support participatory governance mechanisms** to strengthen local ownership and ensure benefits are fairly distributed.
- **Link allocations to just transition strategies and inclusive national plans.**

Standardise transparency and impact measurement

- **Accelerate implementation of the Enhanced Transparency Framework** with harmonised definitions, reporting methodologies and disclosure of commitments, disbursements, terms and outcomes.
- **Require independent audits of reported data** to improve accountability.
- **Develop common indicators** for mitigation, adaptation, mobilisation and equity to support comparability, accountability and learning.
- **Expand results-based finance and scorecards** (e.g. MDB Common Approach to Measuring Climate Results) to incentivise verified outcomes.
- **Systematically report on co-benefits,** including biodiversity, poverty reduction and health impacts.

Ensure alignment and catalytic use of finance

- **Shift from fragmented projects to programmatic approaches** anchored in country platforms.
- **Align international flows with nationally determined investment frameworks** to avoid duplication and build long-term capacity.
- **Use concessional and public finance strategically to crowd in private capital where markets can deliver,** while prioritising grants for areas with no commercial returns (e.g. basic adaptation, loss and damage).
- **Require providers to demonstrate how finance contributes to systemic change,** not only short-term outputs.

*Note: Further actions on access are explored in greater detail Chapter 5.

4. Foundations for the $1.3 trillion target

Delivering the $1.3 trillion in annual external finance needed by 2035 will require not only more resources, but stronger institutional foundations to channel them effectively. This chapter sets out the core building blocks of a country-led investment and financing framework to underpin that scale-up. It argues that the quality of policy, planning and institutional capacity will be as important as the quantity of finance mobilised.

Section 4.1 outlines how countries can strengthen long-term, integrated climate and development strategies, translate them into bankable investment programmes and project pipelines, and promote an enabling environment for investment through policy and institutional reforms. It highlights the central role of Ministries of Finance and the growing importance of country platforms as mechanisms to align public and private finance behind national priorities.

Section 4.2 examines how to tackle debt distress and rebuild fiscal space so that climate and nature investments become drivers of growth and creditworthiness rather than sources of vulnerability. It explores ways to improve access to affordable capital, reform debt management and sustainability frameworks, and link debt relief to climate action.

Section 4.3 focuses on boosting domestic resource mobilisation, which will account for the majority of total investment by 2035. It discusses how countries can raise fiscal revenues, repurpose harmful subsidies, strengthen financial systems and enhance spending efficiency to sustain the investment push.

Section 4.4 examines the just transition challenge in EMDEs and emerging just transition practices that other countries can learn from.

Together, this chapter describes how EMDEs and their partners can create the enabling conditions – policy, institutional and financial – that will allow the $1.3 trillion target to translate into real investment, resilience and growth.

4.1. A country-led investment framework

Scaling up climate finance will require ramping up investment programmes and projects and tackling impediments to advancing them. Country-driven priority goals and investment priorities anchored by national strategies are critical to achieving the intertwined climate, nature and development goals. Countries are increasingly undertaking multi-sector efforts to define their national climate goals but are falling short of integrating them into national development strategies and sector investment plans. Translating these strategies and plans into tangible investments poses additional challenges that will require countries to strengthen institutional capacity, implement an enabling investment environment and design financial structures to mobilise financing. Each country's path to expanding climate investments will be unique, influenced by its specific challenges and context. Each will, however, require a coordinated, multi-sectoral effort.

Public capacity-building is essential for strengthening country-led initiatives to accelerate climate investments. As such, country platforms are increasingly recognised as mechanisms to translate strategies into concrete investment policies, programmes and financing packages. Experience so far is yielding promising results that can be amplified with the creation of new country platforms.

Developing long-term integrated climate and development strategies

Effective climate action will be determined by ambitious yet achievable long-term goals that are aligned with the temperature targets of the Paris Agreement. Articulating goals in nationally determined contributions (NDCs), national adaptation plans (NAPs) and nature biodiversity strategies and action plans (NBSAPs), integrated in national development strategies, is critical, to guide policymakers in setting sector-specific priorities and targets, and to track progress. Countries are now preparing version 3.0 of their NDCs, which is an opportunity to step up their climate ambitions, strategic direction and efforts to translate them into effective investment programmes.

Despite this momentum, climate goals are still only partially integrated into national development strategies, sector investment priorities and macro-fiscal frameworks,[12] which is an issue that is also recognised in the recent report of the COP30 Circle of Finance Ministers (2025). A recent global survey shows that 58% of surveyed Ministries of Finance have high levels of concern about climate threats to GDP, yet only one in four currently incorporates risks into macroeconomic forecasts and only one in three in budget projections (CFMCA, 2025a). Institutional capacity and fragmentation, resource constraints and inadequate policies and incentives impede effective alignment and coordination among government ministries and agencies. There is a need to clarify mandates in the governance of the climate investment programme, and to build expertise to assess climate risks and opportunities to identify investment priorities and guide the design of financing frameworks.

Beyond reducing carbon emissions, most developing countries have established adaptation and resilience priorities in their NDCs and NAPs, but these are often not reflected in national or sectoral development strategies. The World Bank notes this divergence in its recent assessment of the adaptation and resilience readiness of 44 developing countries (World Bank Group, 2024a). Adaptation readiness varies greatly among countries, with many showing gaps in the institutional capacity needed to implement adaptation and integrate macroeconomic risks. Monitoring of climate adaptation action has been weak, reflecting in part the difficulty of disentangling climate and development impacts (ibid.). That said, governments are stepping up their work on adaptation and resilience. Case studies from Bangladesh, Brazil, India, the Pacific Islands and the Philippines, among others, show notable interventions that can be replicated with adjustments to different contexts and country settings (ibid.).

Most EMDEs have not yet successfully integrated just transition principles into their NDCs or climate strategies and plans (Glynn et al., 2020; Circle of Finance Ministers, 2025). Integrating just transition programmes is essential to mitigate adjustment costs and protect those that may be adversely affected by the low-carbon transition, which has been emphasised in international agreements – such as the Paris Agreement, the ILO's Guidelines for a Just Transition (ILO, 2016), and the UN's Agenda 2030 and Sustainable Development Goals (see Sections 2.1 and 4.4 of this report).

Climate strategies should be anchored in robust fiscal space and external financing to ensure debt sustainability. Ministries of Finance are gradually integrating climate change into fiscal policymaking, but they point to inadequate capacity and expertise to understand the macro-fiscal implementation of scaling up investments (CFMCA, 2025a). Challenges include integrating climate into analytical models and capacities, the availability of appropriate models, data and expertise, and financing constraints.

[12] See also UNDP (2025a), which draws lessons from the UNDP's NDC Support Programme during the period 2017–2025, noting the need for long-term sustained assistance as countries increase the integration of climate goals into their national programmes.

Moreover, fiscal implications do not pertain only to the financial cost of projects but also to welfare and growth impacts over the medium and long term. Both underpin debt sustainability and should inform budgetary and borrowing decisions (Systemiq, 2024; Task Force on Climate, Development, and the IMF, 2024). Under constrained fiscal space, demonstrating the growth payoffs of adaptation investments could determine decisions to spend, rather than consolidate, as a means to ensure debt sustainability over the medium term.

The domestic budget process will therefore be an important engine to mainstream NDCs and NAPs. This highlights the importance of embedding climate priorities in medium-term fiscal frameworks and policies, budget preparation and allocation, and tracking progress in expenditures. Mainstreaming national climate priorities merits continued and increased support from development partners. For example, the UNDP's Integrated National Financing Framework (INFF) Facility established in 2020 with support from the UN and other partners provides technical assistance to country-led frameworks to integrate climate and nature objectives into macro-fiscal planning. The UNDP's Climate Finance Network has also prepared a guidance note with tools and practices to find entry points to align NDCs and NAPs in public financial management systems (UNDP, 2025). The ADB's Adaptation Investment Planning Program is also supporting member countries to translate their adaptation priorities in NAPs and NDCs into investment plans within their medium-term fiscal frameworks (ADB, 2025).

Translating strategies into tangible investment programmes and project pipelines

To move from climate ambitions to tangible climate action, countries need to build robust domestic institutional capacity to develop investment programmes and project pipelines. Building effective, investment-worthy pipelines presents a significant challenge in EMDEs, and will require intensifying project preparation and effectively connecting prepared projects with investors.

Investing in project development has huge leverage potential by increasing the quantity and quality of projects that can mature into bankable investments, but significant implementation gaps remain. This leverage is particularly valuable given the scale of potentially investable sustainable infrastructure projects in EMDEs. Preparing projects with private participation presents complex challenges in assessing project feasibility, integrating climate risks into infrastructure projects, and devising appropriate risk allocation structures between the public and private sectors. Tackling these will require increasing capacity for project development.

Collaborative initiatives to link project pipelines to investment opportunities will help crowd-in climate financing. Early collaboration with the private sector can combine public sector oversight with private sector expertise and catalyse upfront financing to co-create and deliver bankable projects and pipelines. This could foster better risk-sharing, innovation and greater efficiency, while requiring attention to balancing public and private interests. Governments can also tap their NDBs to catalyse private sector participation, as well as MDBs and multilateral climate funds.

Early, sustained and predictable public and international support for project preparation is critical to delivering positive results. Experience from successful project development funds in traditional PPP programmes in EMDEs emphasises the importance of credible governance structures, an enabling PPP environment and sufficient and sustained financing delivered at early stages of project preparation (World Bank Group, 2024b). Despite increased governments efforts in these areas, there are significant constraints to strengthening early-stage project preparation and expanding investor outreach. Increased international support will be valuable, including in helping countries

work early with the private sector to co-create investment opportunities. This underpins the recommendation of the G20 Independent Expert Group report on MDB reforms to scale up the Global Infrastructure Facility, for example (see G20 IEG, 2023a, 2023b). MDBs, bilateral donors and development partners can provide sustained support to upgrade project preparation capacity and strengthen investor outreach.

There have also been notable efforts to bring together a broad range of investors to draw on their strengths and expand climate finance. The Inter-American Development Bank's Technical Cooperation with National Development Banks on Green Finance and Climate Risk, established in 2016, has mobilised around $2 billion in sustainable investments in six countries in Latin America and promoted knowledge sharing of best practice among countries and other stakeholders (Mariotti et al., 2025). More recently, Brazil's Climate and Ecological Transformation Investment Platform, housed by BNDES, was launched to bring together the public and private sectors to mobilise financing at scale to help Brazil's climate transition (GFANZ, 2024a; Circle of Finance Ministers, 2025).

Promoting an enabling investment environment through policy and institutional reforms

Creating a favourable investment climate will require a mix of policies that incentivise investment in the low-carbon economy and tackle the many market and government failures that still impede these investments. Raising and expanding the scope of carbon pricing will be crucial, as will phasing out harmful fossil fuel subsidies. Given that the path to net zero is beset by barriers, it is insufficient to rely solely on pricing incentives (Stiglitz et al., 2017). Additional policies become necessary in situations where optimal pricing is unattainable or ineffective for economic and distributional reasons. As such, effective climate policy packages will need to blend various strategies appropriate to each country context, including labelling, regulations, green subsidies and direct investments (World Bank Group, 2023). Procurement reforms will be an important complement. Interventions should be designed to initiate transitions in critical systems such as energy and food.

To ensure the availability and affordability of needed technologies and infrastructure, countries can employ technology support policies and demand support measures (World Bank Group, 2023). Technology support (or 'supply-push') policies focus on reducing technology development costs through funding for research, development and demonstration activities. For example, Brazil's early adoption of R&D policies, such as its National Electric Energy Conservation Programme, has yielded significant energy savings (Ribeiro et al., 2024). On the other hand, demand support (or 'demand-pull') policies aim to create a market for innovative solutions and their diffusion, such as financial incentives to adopters or by developing standards and codes. India has also implemented policies to achieve ambitious renewables targets such as reduced solar energy tariffs and net metering that credits solar energy owners based on the surplus energy they export to the grid.

Additionally, policy reforms should foster adaptation and climate resilience and restoring biodiversity and nature loss. These will involve phasing out environmentally harmful subsidies that degrade land and deplete natural resources, appropriate regulatory standards and practices, and financial support to preserve forests, promote sustainable fisheries and restore land productivity.

Policies will need to expand the financial landscape in ways that promote green and climate-resilient financing. Given the constraints on public finance, policies aimed at incentivising and drawing private sector investment become particularly vital. Regulatory reforms play an important role. For example, Kenya successfully attracted private capital through a series of regulatory reforms to triple its generation capacity, enhance system

reliability, and reduce carbon intensity by approximately 60% (World Bank Group, 2023). That said, most EMDEs are still in the early stages of integrating climate risk into financial sector regulations, and they face the challenge of doing so without creating onerous unintended regulatory burdens.

The role of Ministries of Finance

In all the areas above, Ministries of Finance play important leadership and coordinating roles in setting national strategies and development plans. The 2023 guide prepared by the Coalition of Finance Ministers for Climate Action provides a compelling case for that role and the challenging policy and institutional agenda they face (CFMCA, 2023). Ministries of Finance are critical actors in macro-fiscal policy setting, including taxation, budget allocation, and expenditure and debt management, which anchor the fiscal sustainability of climate and development strategies. They are shareholders in, and/or regulators of, state-owned enterprises and represent their countries in the governance of multilateral and regional development banks, which are both important sources of climate finance. Ministries of Finance also play important roles in supporting other Ministries – those charged with planning, environmental policy, energy, infrastructure and other areas – to integrate climate action and the macro-fiscal impacts of accelerating implementation of national strategies. Ministries of Finance will need to build their capacities to carry out these leadership, coordinating and supporting roles.

Ministries of Finance need to deepen their role in formulating national climate strategies and implementing fiscal policies to facilitate green and climate-resilient transitions. As shown by the 2025 survey by the Coalition of Finance Ministers of 59 Finance Ministries from advanced economies and EMDEs (CFMCA, 2025a), most have mandates to deliver on climate goals but they will need to build capacity and analytical expertise to understand the macro-fiscal implications of scaling up climate-aligned investments, including for adaptation and resilience-building, and to overcome financing constraints.

Development partners should scale up their support for capacity-building in finance ministries in EMDEs. For example, the Coalition of Finance Ministers, as part of its Helsinki Principle 4 workstream, has launched a major initiative to support capacity-building in Ministries of Finance to undertake economic analysis and modelling of pressing issues on building climate-resilient economies (CFMCA, 2025b). Platforms to enhance knowledge-sharing among countries will be valuable.

Finally, recognising the central role of Ministries of Finance in advancing climate goals and the climate finance agenda, both domestically and internationally, Brazil's Ministry of Finance, in support of the COP30 Presidency, convened a Circle of Finance Ministers from partner countries to engage in consultations on pathways to scale up climate finance and strengthen the enabling environment for climate investments. Since its establishment in April 2025, the Circle has convened multiple discussion forums with various stakeholders globally to provide substantive inputs to the Baku to Belém Roadmap, building on the body of work of governments, experts and other stakeholders. In October 2025, the Circle issued its report covering challenges and practical recommendations in five priority areas: concessional finance and climate funds, MDB reforms, creation of country platforms, developing innovative solutions to mobilise private capital, and strengthening regulatory frameworks for climate finance (Circle of Finance Ministers, 2025).

Country platforms

Context

Country platforms have become a central focus of international discussions on climate and development finance. Their momentum has accelerated since 2024, when the Brazilian G20 Presidency placed them at the heart of deliberations on mobilising climate finance and reforming the international financial architecture. Country platforms have featured in the Task Force Clima, the G20 International Financial Architecture Working Group and the Sustainable Finance Working Group, and are recognised as a pillar of the MDB reform roadmap.

In 2024 and 2025 country platforms have been endorsed at multiple high-level fora. The Finance in Common Summit highlighted them as a mechanism to strengthen the role of public development banks (PDBs) in global finance, while the Finance for Development Conference in Seville adopted the Sevilla Platform for Action, calling for "a new generation of country-owned platforms with country-led financing strategies" (Sevilla Platform for Action, 2025). The Coalition of Finance Ministers for Climate Action has created a dedicated subgroup, and the heads of MDBs have issued a joint statement describing country platforms as instruments that can combine policy reform, investor appetite, external support and coordinated finance to mobilise investment at scale (AfDB et al., 2024).

Country platforms are also reflected in the COP/UNFCCC context. The UAE Leaders' Declaration on a Global Climate Finance Framework emphasised that "country-owned investment platforms, for energy transitions, forests and biodiversity, water, and adaptation, that converge development aspirations with climate and environmental challenges are the essential starting point" (COP28, 2023). It underscored the importance of robust, co-created investment pipelines to enhance the scale and effectiveness of finance. And, most recently, the report of the Circle of Finance Ministers on the Baku to Belém Roadmap, highlights the role of country platforms as a key instrument in accelerating investment and maximising the mobilisation of finance from all sources.

Definition and principles

The G20 Reference Framework for Effective Country Platforms (2020) defines country platforms as "voluntary, country-level mechanisms, set out by governments and designed to foster collaboration among development partners, based on a shared strategic vision and priorities" (G20, 2020). They are not national strategies in themselves – such as NDCs, long-term strategies or integrated financing frameworks – but mechanisms to translate such strategies into concrete investment policies, programmes and financing packages.

Climate action requires both the scaling up of investments and transformative change. Transformational scaling at the country level generally requires the establishment of a country platform. The effective functioning of country platforms and of scaling pathways requires that incentives and accountabilities among actors/stakeholders are aligned; very importantly, they also require that capacity, incentives and accountabilities within these organisations are aligned. Institutional infrastructure to support country platforms and upscaling has to be developed and supported (Linn, 2025). Climate-focused country platforms have gained momentum as a practical solution to tackle various coordination and climate finance challenges at the country level, building on longstanding programmatic approaches in development.

While there is no single model, experience has crystallised a set of common features for country platforms (Hadley et al., 2022):

- **Credible political agreement** between governments and partners around clear goals, backed by national ownership.
- **Effective coordination mechanisms**, whether across government or focused in key agencies, to align policies, reduce transaction costs and drive reforms.
- **Programmatic investment planning,** shifting away from fragmented projects towards integrated approaches that can achieve transformational outcomes.
- **Financing mobilisation strategies** that make strategic use of scarce concessional resources to unlock larger flows from domestic and international public and private finance.
- **Transparency and monitoring,** enabling trust and accountability by linking finance to defined objectives and outcomes.

Three core principles stand out: strong country ownership, close connectivity to financing sources, and flexibility to adapt to evolving national circumstances. Together, these enable country platforms to provide a structured yet adaptable framework that links policy reform, capacity-building and finance in support of nationally defined priorities.

Future role

Looking ahead, country platforms are expected to become a mainstream instrument of the global development finance architecture. By 2035, a wide range of countries – including LDCs and SIDs – could be using country platforms to channel finance towards priorities such as the energy transition, adaptation and resilience, nature conservation, and just transition. They would increasingly serve as the framework through which MDBs, bilateral partners, PDBs and vertical funds engage with countries, and as the mechanism through which private finance is mobilised at scale.

While the initial round of country platforms, the so-called Just Energy Transition Partnerships (JETPs), were pushed and supported by the G7, there is an emerging leadership from the Global South on country platforms for climate, with an informal coalition of the willing led by South Africa and Brazil. Global South leadership has driven renewed momentum behind the country platform agenda by providing thought leadership and aims to establish a 'new generation' of country platforms beyond the energy transition, including in LDCs and SIDs. As country platforms emerge as a model for the most climate-vulnerable, we need to be clear that current models tailored to mitigation finance in middle-income countries need to evolve to reflect existing challenges associated with capacity-constrained countries and scaling up finance for adaptation and resilience (Bardouille and Ahmed, 2025)

If implemented effectively, country platforms could shift the practice of climate and development finance from fragmented projects to programmatic investments, strengthen institutional capacity, and build trust between countries and international partners. They would also play a central role in reaching the $1.3 trillion annual external finance goal for EMDEs other than China by 2035 by providing the institutional and financial architecture to deploy finance at scale and link it to measurable outcomes.

How platforms mobilise finance

The distinctive value of country platforms is that they provide a structured mechanism to bring together diverse sources of finance – domestic and external, public and private – behind nationally defined priorities. Instead of fragmented, project-by-project

funding, country platforms create an integrated framework where different actors can contribute according to their comparative advantage.

- **Concessional finance** plays a catalytic role. Grants and highly concessional loans from bilateral donors, multilateral institutions, PDBs and philanthropy are vital at the early stages of country platform development. They support programme readiness, including policy formulation, institutional design and project preparation. They also finance activities with limited or no direct revenue streams, such as adaptation, social inclusion and just transition measures. Used strategically, concessional resources can de-risk projects, lower the cost of capital and crowd in commercial investment. The effectiveness of country platforms often depends on how well this scarce resource is targeted.
- **MDBs** can play a system-wide role in country platforms. They are uniquely positioned to combine policy dialogue, technical analysis and investment finance. By working through country platforms, MDBs can align their operations with country strategies, reduce duplication across institutions, and develop blended finance instruments that attract private investors. Their involvement also signals credibility to markets, which can reduce perceived risks and improve financing terms. Importantly, country platforms provide a practical entry point for MDBs to act more coherently as a system, as recommended by the G20 Independent Expert Group (see G20 IEG, 2023a, 2023b).
- **NDBs and PDBs** are critical anchors for country platforms. They bring deep knowledge of local markets and policy contexts, help to prepare pipelines, and provide finance in local currency, which is crucial for reducing exchange-rate risks that deter private investors. Their granularity of intervention enables them to support smaller-scale projects or community-based initiatives that may not attract international finance. The central role of BNDES in Brazil's Ecological Transformation Investment Platform illustrates how NDBs can provide institutional continuity and link international support with national implementation (Ministério da Fazenda, 2025).
- **Vertical climate and environmental funds** – such as the Green Climate Fund (GCF), Climate Investment Funds (CIF) and Global Environment Facility (GEF) – also play an important role in country platforms. They can finance readiness activities, strengthen institutional capacity and support investment programme preparation. When aligned with platforms, their interventions can be upscaled and better coordinated with MDBs, NDBs and bilateral donors, reducing overlap and transaction costs.
- **Private finance** is both the largest potential source of capital and the hardest to mobilise. Country platforms improve the conditions for private investment by clarifying policy direction, building transparent and investable pipelines, and addressing risks through guarantees, blended instruments or policy reforms. They also create forums where governments and investors can engage early in programme design, helping to 'sound out the market' and adjust financing structures to investor needs. Over time, country platforms can establish pathways for increased mobilisation, with public actors gradually stepping back as private participation grows.
- **Philanthropy** can provide catalytic contributions in areas that are otherwise hard to fund. Philanthropic resources are especially valuable at the initial engagement stage – supporting stakeholder consultations, knowledge generation and early capacity-building – where speed and flexibility are often more important than scale.
- **Domestic resources** remain essential to anchor country platforms. Strong domestic mobilisation – including through budgetary allocations, public investment and local capital markets – signals commitment and creates confidence for external partners. Domestic resources also provide local-currency financing, which is vital for financial stability and for reducing reliance on foreign-denominated debt. Where fiscal space is

constrained, country platforms can help countries link investment priorities with debt management strategies, including the use of debt-for-climate swaps or climate-contingent debt clauses.

Taken together, these elements show how country platforms mobilise finance not by creating new flows in isolation, but by integrating and sequencing different sources. Concessional finance and philanthropy fund early-stage readiness; MDBs and vertical funds provide policy support and blended instruments; NDBs anchor implementation in local markets; private capital scales up investments where conditions allow; and domestic resources ground the framework in national commitment. By coordinating these inputs transparently around shared objectives, country platforms reduce fragmentation, increase leverage and link finance directly to transformational outcomes. Catalytic concessional finance is a critical ingredient for country platforms. Equally, country platforms for transformative change require long-term, predictable finance. Even where there is political will, financing ambitious climate goals requires solutions that lie outside the boundaries of the country platform, they should be connected to global efforts to improve the international financial architecture to deliver more and better climate finance.

Experience to date

The launch of the Just Energy Transition Partnership (JETP) in South Africa in 2021 marked the first large-scale application of the country platform concept to pursue a climate-related objective. It provided a framework for aligning partner support behind a coal phase-down strategy, combining concessional and commercial finance with policy reform commitments. Similar partnerships followed in Indonesia, Vietnam and Senegal. These first-generation country platforms demonstrated the potential of the model, but also highlighted its limitations: a narrow focus on energy, complex donor coordination and challenges in translating pledges into disbursed finance.

A second generation broadened the approach. Egypt's Nexus of Water, Food and Energy (NWFE) platform (2022) was the first explicitly multi-sectoral country platform, linking investment planning across critical sectors. Bangladesh's Climate and Development Platform (2023) adopted a similar integrated approach, while Brazil's Ecological Transformation Investment Platform (2024) aligned national strategies on energy, industry, transport and the bioeconomy. In Brazil, the national development bank BNDES plays a central role in implementation, showing how local financial institutions can anchor country platforms. In Türkiye, a platform has been created around industrial decarbonisation, highlighting the potential for thematic country platforms in hard-to-abate sectors.

Several lessons emerge:

- **Scope matters:** broad, multi-sector country platforms require strong institutions; narrower, sectoral platforms may be more feasible for countries with capacity constraints.
- **Ownership is critical:** country platforms must be aligned with national plans and priorities, not donor agendas, to build trust and durability.
- **Pipeline quality is central:** credible, well-prepared project pipelines are essential to attract investors and accelerate implementation.
- **Phased approaches can work:** starting with a focused platform and expanding as capacity develops allows countries to build experience and credibility over time.

Operationally, country platforms tend to follow a five-stage trajectory, which can serve as a blueprint for the development of new platforms (Tanaka et al., 2025). Each stage demands coordinated support and predictable resources to sustain momentum:

1. **Initial engagement** at country level involving the consolidation of early interest in adopting a country platform approach to achieve specific national priority climate and development objectives.
2. **Programme readiness** defining the organisational, policy and technical bases of the platform. This includes setting the political agreement underpinning the country platform, the institutional structure of the platform, technical readiness work covering policy, modelling or sequencing of programme milestones, and stakeholder readiness. In the case of highly-indebted countries, this would include work on debt management and the potential consideration of debt/climate instruments such as contingency clauses and debt-for-climate swaps.
3. **Investment programme** formulation reflecting the scale and sequencing of projects to achieve the country platform's goal.
4. **Finance mobilisation** from public and private, local and external financing sources to build the country platform's capital stack.
5. **Implementation** translating the investment plan into a set of implemented projects, policies and capacity-building activities leading to country platform outcomes and impact.

Progress underway in addressing core challenges

The COP30 Circle of Finance Ministers placed country platforms at the centre of their recommendations to strengthen climate finance (see Circle of Finance Ministers, 2025). In particular, Priority 3, 'Boosting domestic capacity and voluntary country platforms for climate investments', recognised that country platforms can only succeed where countries have the ability to align policy incentives, identify investment priorities and channel finance effectively. This requires addressing institutional fragmentation, strengthening fiscal and debt management, and improving the functioning of domestic financial systems. At the same time, country platforms connect directly to other Circle priorities: they depend on improved effectiveness of the MDB system, the mobilisation of private finance at scale, and the ability of vertical funds to support country-led frameworks rather than add to fragmentation.

The Circle identified several obstacles that must be tackled if country platforms are to deliver on their promise:

- **Pipeline and investment-readiness gaps** remain one of the biggest constraints: many governments lack the technical and institutional capacity to translate climate strategies into bankable projects, slowing down the mobilisation of finance.
- **Institutional fragmentation** – where ministries, agencies and development partners operate in silos – creates duplication and raises transaction costs.
- **International support is often fragmented** as well, with multiple overlapping initiatives and insufficient resources dedicated to early-stage capacity-building. Political economy dynamics can also complicate matters: entrenched interests, competing sectoral priorities or short-term fiscal pressures may undermine a country's ability to commit to and sustain platform implementation.
- Finally, **weak governance arrangements** and inadequate attention to social inclusion can undermine trust in country platforms, limiting their ability to mobilise support and to deliver a just transition.

Building on these priorities, countries and partners are already moving ahead. Implementation and expansion of existing country platforms is continuing: JETPs and Brazil's Climate and Ecological Transformation Investment Platform (BIP) are being rolled out, while several new platforms are planned for launch by the end of 2025. Early engagement with additional countries is underway, involving MDBs, NDBs, vertical funds and development partners to scope out potential platforms. To support this, a 'spark plug' fund is being established with philanthropic resources to provide catalytic finance for governments at the initial engagement stage, covering capacity-building, stakeholder consultations and pipeline preparation.

MDBs are already playing a central role, assisting countries with design and implementation, while national and public development banks are stepping up as anchors, as seen with BNDES in Brazil. The International Development Finance Club (IDFC) network is exploring broader engagement to mobilise its members around country platforms. Vertical climate funds – the GCF, CIF and GEF – are also adapting their operations, offering programme readiness support, institutional strengthening and project preparation. Philanthropy is increasingly engaged in early-stage work, where its flexibility can make a critical difference.

The private sector is being brought into country platforms earlier and more systematically. Initiatives such as the Glasgow Financial Alliance for Net Zero (GFANZ) are engaging from the outset, helping to shape pipelines and identify risk-sharing arrangements that make investments viable. Donor coordination is also evolving: lessons from the International Partners Group on the JETPs are informing new structures adapted to different country contexts. Finally, a Country Platform Knowledge Hub is being established to promote peer-to-peer learning, generate practitioner-oriented guidance and coordinate technical assistance across institutions.

Together, these steps signal the emergence of a new generation of country platforms – more geographically diverse, more thematically comprehensive, more inclusive of vulnerable economies, and better supported by international partners acting in a coordinated way. If pursued with ambition, country platforms could become the principal mechanism through which climate and development finance is mobilised and delivered over the coming decade.

Strategic priorities to support a country-led investment framework

Table 4.1. Strategic priorities and action agenda to support country-led investment framework

Develop long-term integrated climate and development strategies
• Mainstream climate goals in national strategies and devise well formulated, credible investment programmes and projects with implementation pathways. These can be expressed in robust NDCs, NAPs and NBSAPs, for example, developed with strong multi-sector coordination and complemented by sub-national plans. Implementation strategies should incorporate milestones for shorter-term sectoral plans, monitoring plans to assess progress, and flexibility for timely adjustments, when needed.
• Define investment and financing scenarios anchored in robust fiscal and external financing strategies.
• Integrate adaptation and resilience and just transition roadmaps into investment strategies, guided by country context and circumstances. Dialogues to develop just

transition roadmaps should encompass all facets of social inclusion and ensure broad representation of all social groups.

- **Build institutional capacity to understand the impact of integrating climate risks into public budgeting and investment planning,** including enhancing modelling and analytical capacities and bridging data gaps.
- **Increase technical and concessional financial support from the MDBs, multilateral funds and bilateral agencies** for the development of clear strategies, particularly in small island developing states (SIDs) and the least developed countries (LDCs), and for just transition programmes.

Translate strategies into tangible investment programmes and project pipelines

- **EMDEs should strengthen institutional capacity, governance, and coordination to develop investment programmes and project pipelines**.
  - Scale up project preparation facilities to develop bankable climate-aligned project pipelines, including at subnational and local levels.
  - Tap the expertise of the private sector and NDBs by co-creating investment programmes.
  - MDBs and development partners should deliver early, adequate and predictable technical and financial assistance to strengthen project preparation capacity.
- **Governments should create financing vehicles and structured collaborative arrangements** to connect investment pipelines with private financing as well as MDB, official and other sources of financing.

Promote an enabling investment environment through policy and institutional reforms

- **Implement a mix of policies that are designed to accelerate systemic transition,** including carbon pricing, labelling, regulations, green subsidies, procurement standards and direct investments, such as in public sector infrastructure to support markets for private investment.
- **Provide technology support and demand support measures** to ensure the availability and affordability of needed technologies and infrastructure.
- **Implement policies to expand the financial landscape in ways that support green and climate-resilient investments.** These should include regulatory reforms and climate-risk tests, to help integrate climate risks into risk management, strengthen governance and disclosure, and develop green taxonomies.
- **Streamlining planning and permitting**, while maintaining strong environmental, biodiversity and social safeguards.

Strengthen the role of Ministries of Finance

- **Ministries of Finance should deepen their capacities and expertise in integrating climate goals in macro-fiscal policies to support an investment push.**
- **Development partners should provide adequate financial and technical support** to improve analytical tools and data availability and mechanisms for knowledge-sharing of best practice.

Advance country platforms

- **Launch a new generation of country platforms.** Early experience shows that country platforms can succeed only when they reflect country priorities and contexts. The COP30 Circle of Finance Ministers recommended that interested developing countries move ahead

with new platforms aligned with their own national strategies. Unlike the first wave, which centred largely on middle-income countries and on the energy transition, this new generation could extend to low-income countries and SIDs, and cover a broader range of objectives – including adaptation, resilience and nature. This will require tailoring design and financing approaches to the realities of smaller and more vulnerable economies, where institutional and financial capacity is limited.

- **Embed adaptation and resilience.** Most country platforms to date have focused on mitigation, but growing climate impacts make it essential that resilience is systematically integrated into platforms. This means ensuring that investment pipelines explicitly take account of climate risks, that adaptation priorities are embedded in sector plans and financing strategies, and that resilience is treated as a cross-cutting theme rather than an afterthought. By making resilience visible in national plans, policies and project pipelines, country platforms can channel more finance to adaptation, which remains chronically underfunded.
- **Provide predictable early-stage support.** One of the strongest messages from the Circle is that country platforms cannot succeed without reliable early funding for programme readiness. This covers the political agreements that underpin platforms, the institutional design required to coordinate across government, and the technical work needed to prepare investment pipelines and projects. Such readiness support is often difficult to fund because it does not generate immediate financial returns, but it is essential to unlock later flows of concessional and private capital. Predictable support in this early phase can ensure that platforms move beyond announcements and begin delivering investable programmes.
- **Reduce fragmentation and improve coordination.** The proliferation of uncoordinated initiatives undermines efficiency and trust. The Circle urged bilateral partners, MDBs, DFIs and vertical funds to adjust their practices and 'operate as a system' when engaging with country platforms. This requires aligning incentives within institutions to promote collaboration, clarifying roles among partners, and focusing engagement on country-owned priorities rather than donor-driven agendas. At the country level, platforms should act as the focal point for coordination, reducing transaction costs and creating coherence across sources of external support.
- **Secure predictable and long-term finance from DFIs and donors,** with MDBs playing a key anchor role.
- **Ensure strong private sector engagement from the outset.** A central aim of country platforms is to create the conditions for large-scale private investment. The Circle recommended that public financing sources use concessional resources more strategically – not to substitute for private capital, but to catalyse it. In practice this means directing scarce concessional finance towards project preparation, risk mitigation or activities with limited revenue streams (such as adaptation or social inclusion measures). For commercially viable investments, private investors should take the lead, with public actors gradually stepping back. Over time, country platforms can create pathways for growing private participation, supported by blended finance tools, policy reforms and risk-sharing mechanisms.
- **Strengthen domestic institutions and foster inclusion.** Platforms can only be durable if they are embedded in strong national institutions and respond to the needs of society. This means investing in domestic financial systems and planning institutions, fostering coordination across government, and supporting consultation processes that bring in civil society and affected communities. The Circle also stressed that country platforms must explicitly incorporate social inclusion and just transition considerations – ensuring that investments generate jobs, protect vulnerable groups and support equitable development outcomes.

4.2. Tackling debt distress and building fiscal space

A time to change course on managing debt

This section is about changing course on managing debt to transform the vicious circle of debt into a virtuous circle of investment leading to economic growth that generates enough revenue to service the debt, steadily improve creditworthiness and drive down interest premiums.

Rising levels of debt and debt service now pose a significant threat to investments in climate and nature in most EMDEs that have sub-investment grade credit ratings. Around 55–60% of the additional investments identified in this report need to take place in places with a legacy of high debt and debt service, where interest costs are high, and which remain vulnerable to uninsured natural hazards that force them to accumulate further debt to compensate households and firms for loss and damage. These countries are in a vicious circle where debt service limits fiscal space, leaving them exposed to shocks and unable to invest in mitigation, adaptation or nature. They cannot access the dominant financing pathway of non-mobilised private capital at an affordable cost.

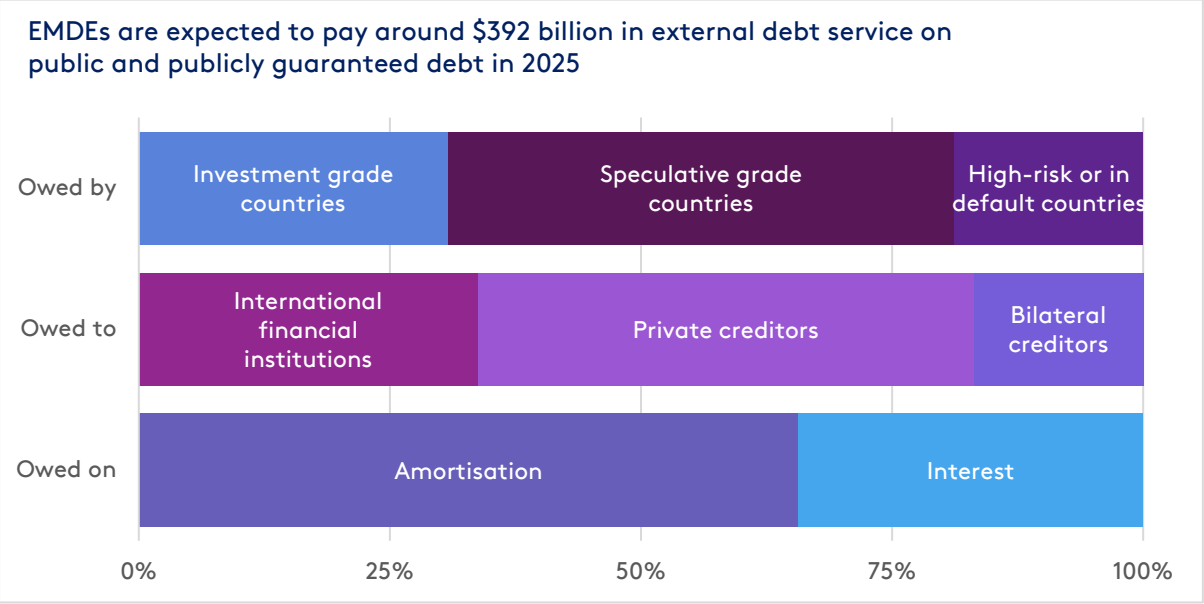
Liquidity solutions, such as the G20 sponsored Debt Service Suspension Initiative, and the ensuing Common Framework, have provided some relief but have not dealt with the core problems of the high volume of debt service, the cost and composition of EMDE debt, or remaining exposure to external shocks. The total gross general government debt of EMDEs (other than China) amounts to 74% of GDP (IMF, 2025a). This is not high in comparison with debt levels in advanced economies: the G7 countries have a debt ratio of 125%. But high interest rates and short maturities mean debt service obligations are high. A further complication is that most EMDE debt is external, creating pressure on the balance of payments.

EMDEs are expected to pay about $392 billion in external debt service on public and publicly guaranteed debt in 2025 – almost double the total commitments of external finance from all sources for climate action (see Figure 4.1).

- Only 30% is owed by countries with an investment grade credit rating. Other countries face high interest rates.
- Only one-sixth of debt service is owed to bilateral creditors (and only a fraction of that is owed to members of the Paris Club). Over half the debt service is owed to private creditors who have no obligation to accept debt haircuts or restructurings.
- Two-thirds of debt service is owed in amortisation, representing a liquidity problem for most countries.

Most EMDEs have avoided outright debt default thanks to stringent fiscal austerity but the resulting massive underinvestment in climate action jeopardises development outcomes. As the 2025 Jubilee Report on tackling the debt and development crises notes, the problem is that: "For many nations, the real default is not a legal or financial one, but a social and development one: They are defaulting on their people, their environment, and their future" (Pontifical Academy of Social Sciences, 2025: 3).

Figure 4.1. Breakdown of EMDE Debt Service



Note: Calculations exclude China. Source: Author calculations using World Bank International Debt Statistics from 26 February 2025. Public and publicly guaranteed (PPG) (Total Debt Service, current US$).

In this context, unlocking finance for climate and nature-related investments will require action in four areas:

1. **Addressing a legacy of high debt** with a composition weighted towards volatile private capital
2. **Lowering the cost of capital** and expanding access to long-term financing
3. **Ensuring macroeconomic stability and debt sustainability**
4. **Breaking a vicious cycle** between vulnerability to climate shocks and unsustainable debt accumulation.

The size of the debt challenge

In the financing pathway identified in this report, only $200 billion of the $1.3 trillion would be mobilised on non-commercial terms. The rest would have to come in the form of external debt and equity which would need to be serviced or repaid in the future. Unlocking this finance requires long-term solutions for country creditworthiness.

Half of the increased debt would be used for public investments and carried on public sector balance sheets. The public sector has a larger responsibility to invest in adaptation, nature, and loss and damage, where direct revenue generation is lower, while the private sector could account for a higher share in the energy transition. Debt and fiscal-space headwinds must be addressed for public investment to take place at scale.

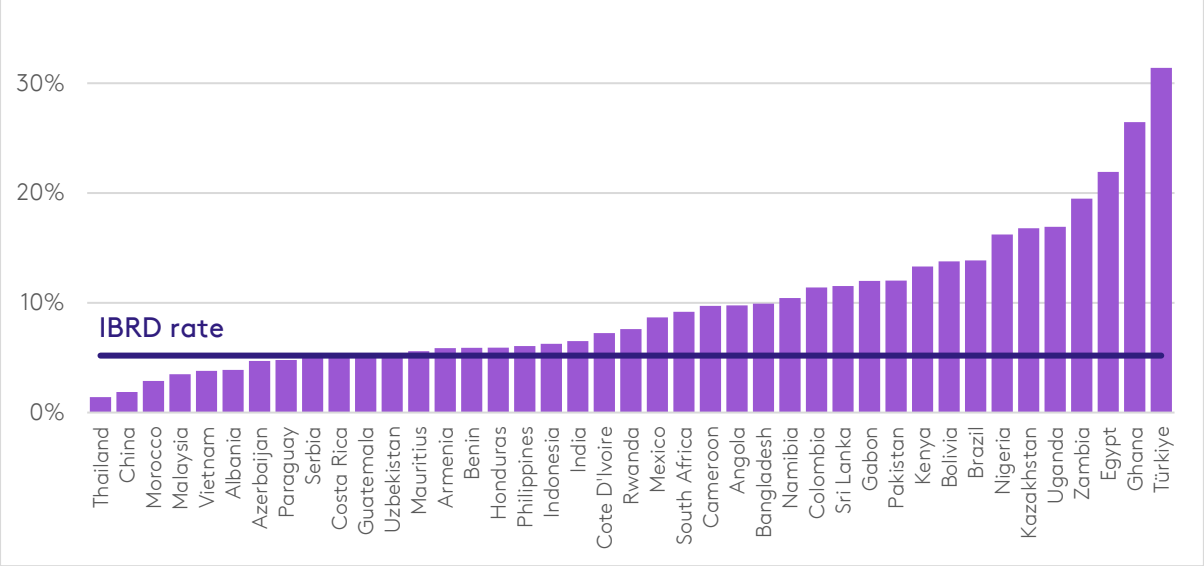
Not all countries face the same debt challenges:

- **Low-income countries face severe constraints of a legacy of inflexible debt and limited access to finance.** Half of the 68 countries eligible for concessional IMF loans are judged to have a high risk of debt distress or are already in debt distress (IMF, 2025b). These countries are not eligible for the higher-volume non-concessional credit windows of the MDBs and rely instead on grants, which are increasingly scarce. They

also have very limited access to incremental private development finance because of an existing debt overhang. Accordingly, their fiscal space is minimal.

- **Middle-income countries with speculative credit ratings are constrained by high costs of capital** (Espino et al., 2025). Over half of those EMDEs able to issue 10-year bonds must pay double-digit interest rates (see Figure 4.2). These countries are currently paying around $200 billion per year in external debt service, of which around half goes to private creditors in interest and amortisation payments (World Bank Group, 2025a). The impact is two-fold. From a budget perspective, such large amounts reduce the fiscal space available for priority investments. From a project perspective, high interest rates make the choice of renewables less economically attractive.
- **Investment grade EMDEs face limitations on accessing long-term capital due to macroeconomic considerations that limit their indebtedness.** Many of these countries, including large developing economies such as Mexico, India, the Philippines, Colombia, Vietnam, Morocco and Indonesia, owe their strong credit rating to institutional frameworks that limit the power of the executive to borrow. They have thereby avoided overborrowing during booms and have retained an ability to insure against adverse shocks by building fiscal buffers (Espino et al., 2025). However, significant fiscal space was used by these countries in responding to the COVID-19 pandemic and fiscal rules were temporarily suspended. The issue now is whether to rebuild fiscal buffers, even at the expense of foregoing climate investments, or whether to amend fiscal rules to address emerging priorities in climate, adaptation and nature. These countries must carefully consider how macroeconomic variables such as the fiscal deficit, inflation or the current account deficit get reflected in their bond spreads.
- **Climate-vulnerable EMDEs are increasingly exposed to natural disasters and have limited access to risk management instruments.** These countries face a global insurance failure – insurance premiums are too expensive, given their geographical characteristics. After a disaster, many have resorted to borrowing to spread the costs over time, but such strategies have left them highly indebted with little fiscal space to adapt or build resilience to future shocks.

Figure 4.2. Developing country 10-year bond yields



Note: IBRD [International Bank for Reconstruction and Development] rate calculated as the SOFR [Secured Overnight Financing Rate], 4.15% + 1.04% = 5.19%.
Source: Trading Economics, Investing.com and Market Insider, extracted on 7 October 2025

Issues in managing debt challenges while scaling up climate and nature investments

All EMDEs face hard choices to find a financing pathway that balances the ability to make climate investments with debt sustainability. They need to develop a virtuous cycle of investment, financed in part by debt, creating enough economic growth and revenue to improve creditworthiness. Many governments have scaled back public investments as a response to debt distress and limited fiscal space. This follows conventional wisdom that fiscal policy should "aim, in most countries, at reducing public debt…" (Dabla-Norris and Furceri, 2025). However, such an approach exposes countries to damage from natural hazards and foregoes growth and job opportunities. Evidence increasingly points to climate action priorities – i.e. the energy transition, adaptation, nature preservation and risk management – as being least-cost, effective investments to preserve development outcomes (Systemiq, 2024).

A proposed solution is summarised in the IMF-World Bank '3 pillar' approach, which advocates for governments to undertake structural reforms and domestic resource mobilisation, for the international community to support these reforms with augmented financing, and, where warranted, for action to be taken to reduce the existing burden of debt service (IMF and World Bank, 2024a). In this approach, incremental financing and investment can generate growth and avoid climate-related losses in a manner that permits development progress while preserving creditworthiness.

This core idea underpins the Bridgetown Initiative, the Accra-Marrakech Agenda, the Nairobi Declaration on Climate Change, the UN Secretary General's SDG Stimulus Proposal and the Paris Summit for a New Global Financing Pact. Implementation, however, has lagged behind what is needed.

Priority areas to tackle debt distress and build fiscal space

Priority area 1: Addressing the legacy of high debt

Most EMDEs face a legacy of a high debt overhang. Half of all low-income countries are assessed by the IMF and World Bank to be at high risk of default (IMF, 2025a; World Bank Group, 2025b). The number of emerging markets facing high risk has also risen steeply (Wright and Smaldone, 2023).

The G20 Common Framework is the workhorse for addressing debt issues in low-income countries and needs to be strengthened. However, it has been criticised for being too little, too late, and too complex (Chen and Hart, 2025): too little in terms of the scope and size of debt relief, too late in terms of the timeline required to coordinate between multiple creditor types and negotiate comparable treatment, and too complex in terms of the use of state contingent instruments that add uncertainty to development planning. Only four of 73 eligible countries have actually applied for debt treatment under the Common Framework, despite the fact that more than half are classified as having a high risk of debt distress. Some eligible countries, such as Pakistan, have opted for direct negotiations with bilateral creditors rather than declaring an outright default and entering the Common Framework process.

Most middle-income countries are not eligible to participate in the Common Framework and, if they default, must establish ad hoc procedures for negotiations. Three types of issues have arisen: establishing targets for debt relief that balance creditor rights and the country's development needs; coordinating a complex and diverse set of creditors; and managing social and financial risks, including those arising from domestic debt.

At present, targets for debt relief are set based on broad macroeconomic factors without consideration of the microeconomic priorities for climate action. NDCs, NAPs and the World Bank's Country Climate and Development Reports provide useful information on desirable climate action but these documents are not part of formal debt negotiations or growth scenarios. Without incorporating these plans into a quantification of needed financing, the fiscal space required for climate action will not be created.

For example, Sri Lanka's recent agreement with bondholders has a haircut estimated at around 27% on principal and 11% on past due interest but it is unclear if this is adequate to permit the country to take meaningful climate action (Breuer et al., 2025). Sri Lanka's macroeconomic programme with the IMF sets out targets for reducing the level of debt/GDP over the next seven years, but growth assumptions do not reflect alternative pathways with a positive impact of potential new investments in the energy transition nor the need to mitigate against future adverse climate shocks. Given the focus on the next 10 years, the negotiated debt reprofiling exchanged old notes for new ones with around a 10-year maturity. However, rolling over private debt in this way does not provide the long-term resources needed for climate action.

Coordinating creditors with different perspectives complicates debt negotiations. In the case of Ghana, commercial debt accounted for well over half (53.9%) of the country's external debt in 2022 (Ministry of Finance of Ghana, 2024). Multilateral debt, which has traditionally received preferred creditor treatment, accounted for a further 27.9%, while official bilateral creditors only accounted for 18.2%. Of this, the largest creditor was China. The traditional Paris Club members held only 11.3% of the debt.

Managing social and financial risks has presented a further challenge. Both Ghana and Sri Lanka addressed domestic debt overhangs prior to concluding negotiations with external creditors. Ghana's local bondholders took a sizable haircut (although short-term treasury bills were excluded), while Sri Lanka needed to concern itself with the financial stability of banks with large sovereign exposure.

Recent debt treatments offer some lessons on how to deal with a debt overhang in a context where multilateral creditors with inflexible preferred creditor treatment are large, where China is a major creditor, and where the private sector dominates debt service obligations:

- **One lesson is that it is not sufficient for multilateral lenders, especially the development banks, to simply participate in debt negotiations by providing new money.** They have an important role to play in ensuring that any financial resources made available by debt restructuring go towards priority investments.
- **Another lesson is that the maturity of debt matters enormously.** Lengthened maturities on private debt have been instrumental in restoring financial sector confidence and stability in debt workouts. At the project level, structured finance has also heavily featured extended maturities. For example, China restructured the debt it provided for the Addis Ababa-Djibouti Railway from 10 to 30 years to help put project finances back on track. However, large creditors must also acknowledge their responsibilities to ensure that macroeconomic stability is met, as well as project and company sustainability. Chinese debt contracts do not yet have in-built debt service pauses in the event of a large external shock.
- **A third lesson is that debt transparency and consistency of information between creditors and debtors continue to be inadequate**.

A new consideration in addressing the debt legacy comes from the International Court of Justice's unanimous ruling that states have a legal obligation to exercise due diligence to prevent environmental damage. States must also cooperate with one

another to protect the environment or be held legally responsible for not doing so. While non-binding, this advisory ruling should weigh on both creditor and debtor governments in arguing for debt treatments that permit appropriate climate action.

Priority area 2: Improving access to long-term capital and lowering the cost of capital

The external climate finance landscape is dominated by three streams, all of which need to be scaled up in a manner that preserves country creditworthiness and provides the optimal financing composition for specific investment projects (figures from OECD, 2024):

- **Concessional capital**, primarily from rich country governments – $41 billion in 2022
- **Non-concessional official capital from international multilateral and bilateral financial institutions** – $50.6 billion in 2022
- **Private capital** – $22 billion in 2022.

All three types of finance can also have greater impact if integrated in a coherent package. Currently, fragmentation of the streams results in inefficiencies, duplication, competition and lost investment opportunities. Inconsistent eligibility criteria, unclear allocation rules, differing reporting systems and technical weaknesses complicate the co-financing arrangements that are required to bring multiple types of capital together in an effective way.

A top priority is to link access to external finance more closely to the level and efficiency of public investment. Without such a link, general purpose bonds that finance government spending have been a road to disaster. They have resulted in a debt overhang and constrained fiscal space that is not sustainable. To illustrate, during the period when African countries were expanding borrowing from private capital markets from 2010 onwards, their rate of gross fixed capital formation did not change, hovering at around 22% of GDP (IMF, 2025b). Without additional investments, growth trajectories have not changed while debt service obligations now loom large.

A further priority is how to get the right kind of financing for investment projects. Financing partnerships that assign each type of financing to a project on the basis of comparative advantage have been structured through country platforms but are still largely bespoke for each investment, adding to transaction costs.

Each type of financing has strengths and weaknesses. Concessional finance minimises the debt service burden but is in short supply and not scalable, limiting investment opportunities. It operates in locations where private capital mobilisation is difficult. Multilateral and bilateral official finance are more scalable and provide greater opportunities for private capital mobilisation (PCM) but have exposure limits. Non-mobilised private capital is only suitable in a limited number of countries with investment-grade credit ratings and a correspondingly low cost of capital. Priority actions for concessional finance, MDBs and private capital are discussed in detail later in this report.

Concessional finance is the lynchpin of the financial ecosystem for climate and nature financing. It is the preferred form of finance for countries with high debt and debt service levels. IMF simulations show the crucial positive effect of concessional finance for countries undergoing an investment acceleration (Gurara et al., 2019).

Concessional finance also plays a unique role in project finance: helping underwrite the costs of project preparation, investment planning and programming, institutional reform and risk mitigation, and PCM through blended finance. Guarantees, catalytic equity and other instruments will need to be deployed by multilateral institutions,

bilaterals and Vertical Climate and Environmental Funds (VCEFs) in order to triple the volume of blended finance by 2035, most of which will flow to middle-income countries.

MDBs are also critical, providing the most affordable source of finance for climate in middle-income countries and offering new options for very long maturity loans that are best suited to finance select energy transition infrastructure with long pay-back periods. They bring to bear complementary institutional strengths of policy reform, technical cooperation, project management and working with the private sector. They have committed to raising $300–400 billion more in climate finance over the next decade but could raise their ambitions (AfDB et al., 2024).

The allocation mechanisms for both concessional finance and MDB finance should adapt to consider leverage and impact as well as country characteristics. Long-standing traditions call for concessional finance to be allocated on the basis of country income level, governance and sound policy regimes. But concessional finance is also critical at the project level in middle-income countries to leverage non-concessional official and private money. Allocation criteria should consider country vulnerability and resilience needs.

Conversely, MDBs have been constrained in their ability to service their poorest clients because of limits in their own access to concessional funding. Permitting these countries to access long-term MDB non-concessional finance for revenue-generating infrastructure projects would open up considerable fiscal space for them.

Priority area 3: Ensuring macroeconomic stability and debt sustainability

Most Ministers of Finance in EMDEs are bound by fiscal rules – balanced budget, maximum debt ratios, and/or expenditure and revenue rules – designed to ensure that current account deficits and public creditworthiness remain sustainable. During the COVID pandemic, these rules were suspended in many countries but are now binding again. Ministers must choose between reforming the rules or building fiscal buffers to return within prescribed limits.

Most fiscal rules have not been designed with the current context of the need for sharp increases in climate and nature investments in mind. However, evidence from past episodes of investment accelerations suggests that the macroeconomic risks are manageable. The World Bank reviewed 192 'investment surges' in EMDEs – i.e. episodes where physical investment per capita rose by over 4% per year for six years – and found that annual GDP growth rose by 2 percentage points, inflation fell and the current account and employment improved (World Bank Group, 2024c). The lesson: well-implemented investment accelerations can be fully consistent with macroeconomic stability.

The IMF came to a similar conclusion in its meta-study of debt, investment and growth models (Gurara et al., 2019). The 65 developing country simulations show positive qualitative and quantitative effects from scaling up public investment. Gains are magnified and risks controlled when public investment efficiency rises, when the investment scale-up is gradual at around 0.5 percentage points of GDP per year, and when it is accompanied by domestic resource mobilisation and/or foreign aid.

Ministers of Finance in EMDEs should develop long-term debt, financing and growth scenarios consistent with NDCs and NAPs to assess appropriate pathways for public investment and financing. Such scenarios should complement medium-term debt

sustainability assessments.[13] Independent fiscal councils could advise on the design and execution of new rules to enhance credibility in the technical soundness of judgements.

One innovative initiative that is fully consistent with macroeconomic stability and debt sustainability is to link debt relief with climate action through a debt-for-nature swap. Large-scale swaps in Belize, the Seychelles, Barbados, Ecuador, Gabon and El Salvador have demonstrated the dual nature of the benefits of such transactions in providing material savings on debt service along with significant conservation programmes with large economic benefits (Clark et al., 2024).

Priority area 4: Breaking the vicious cycle of vulnerability and debt accumulation

In 2024, the direct economic costs from natural disasters were estimated at $417 billion (Gallagher Re, 2025). Insurance leaders warn that the cost of climate inaction strongly outweighs the cost of adaptation and building resilience and that, in certain locations, housing, cities, agriculture and transport are at risk. If the financial sector becomes unable to bear this risk, or reprices it to recoup expected losses, a credit crunch and severe disruption of economic activity could result.

Developing countries have the largest insurance gaps (90%) (Microinsurance Network, 2024), relying on governments and external donors for support in the event of a natural disaster. But in some cases, disasters are so severe that they overwhelm available resources. Furthermore, *ex post* disaster relief does not encourage innovation in risk management or risk pooling. By some estimates, properly structured insurance could unlock $100–200 billion in climate finance annually by 2035 (Bridgetown Initiative and IDF, 2025).

A first step towards this goal is to embed disaster risk management, leveraging risk insights from the insurance industry, into domestic national and community plans, to quantify the needed protection and put in place pre-arranged finance. Existing mechanisms like the World Bank's Catastrophe Deferred Drawdown Options remain too slow to adequately address the problem and come with complex eligibility conditions.

Debt contracts can also be adapted to integrate pre-arranged financing into lending and investments. Several countries have adopted disaster-pause clauses. Some MDBs are following suit: the World Bank's disaster-pause clause provides a model of what can be done. Another example is parametric insurance, which can provide fast and predictable post-disaster financing where there is clarity on triggers, payments and verification. Regional risk-pools in Africa, the Caribbean, the ASEAN economies and the Pacific Islands can bring down the cost and standardise country access to such instruments.

Recent initiatives to tackle debt distress and expand fiscal space

In 2020, the G20 launched a Debt Service Suspension Initiative to provide liquidity to low-income countries. Payments of principal and interest due in 2020 and 2021 were deferred for three to six years, with a one-year grace period (World Bank Group, 2022c). These deferred payments are now coming due.

Further relief is now being considered through a range of mechanisms. The Common Framework process is designed for countries that need to reduce debt to sustainable levels where warranted. A Global Sovereign Debt Roundtable, managed by the IMF and World Bank, has brought together borrowing countries, Paris Club and other official creditors,

[13] The conclusion of the review of the IMF-World Bank Debt Sustainability Assessment in 2026 provides an opportunity to implement this recommendation in IDA-eligible countries. Similar scenarios should also be developed for middle-income countries.

and private creditors to build a better understanding of the aims and most efficient instruments for debt restructuring.

More recently, the Third G20 Finance Ministers and Central Bank Governors' meeting in Durban in July 2025 committed to addressing debt vulnerabilities in low- and middle-income countries in a systematic manner (UN DESA, 2025) and the G20 Finance Ministers reaffirmed their commitment to further enhance debt sustainability in October (G20, 2025). There are several useful initiatives and suggestions that have brought significant focus on the debt agenda, including those of the Bridgetown Initiative, the UN Secretary General's Expert Group report on debt (UN, 2025b), the Expert Review on Debt, Nature and Climate (2025), the Sevilla Platform for Action, and the reviews of the G20 Common Framework and debt sustainability assessments; see Box 4.1 for a summary of proposals and Table 4.2 for an overview of debt-related recommendations from international expert groups. The deliberations leading up to and concluding in the Seville Commitment highlighted the challenges and potential solutions to tackle the festering problem of debt, especially for low-income and climate-vulnerable countries.

Box 4.1. Summary of proposals to address debt problems

Lowering the cost of financing

- Reform and speed up resolutions under the G20 Common Framework
- Rechannel SDRs to developmental priorities
- Streamline and reduce transaction costs for innovative debt-reduction instruments
- Induce private creditor participation through changes in legislation to deter holdouts; include supermajority clauses and reduce compensatory pre-judgement interest rates
- Share information in a Borrower's Club to ensure equitable and fair treatment and build technical capacity in debt management offices

Raise access to finance during difficult times

- Enhance multilateral liquidity support during crises, including lending into arrears
- Normalise debt service pauses in the event of external shocks

Generate revenues from impactful new investments

- Adapt debt sustainability analyses to include benefits from long-term investments
- Strengthen national investment plans, project selection and appraisal

Table 4.2. Debt-related recommendations from international expert groups

Initiative	Priority recommendations or issues addressed
Bridgetown 3.0 (2024)	Reform the G20 Common Framework; modernise debt service analyses; include climate vulnerability and conservation issues when allocating concessional finance; support carbon markets; boost country capacity to invest in resilience; enhance disaster preparedness through contingency finance; implement the G20 Capital Adequacy Framework recommendations; fund global public goods and loss and damage; capitalise and operationalise the Loss and Damage Fund.
UN Expert Group on Debt (2025)	Enhance liquidity support; normalise debt service pauses during crises; reform the G20 Common Framework; modernise debt service analyses; rechannel SDRs; establish shared technical assistance and guidance platforms; establish a borrowers' forum; expand technical assistance and capacity development to debt management offices and treasuries; strengthen institutional capacity for debt management; improve the quality of investment project pipelines and country platforms; reduce the cost and increase the impact of debt swaps and innovative financial instruments.
Expert Review on Debt, Nature & Climate (2025)	IMF/World Bank and credit rating agencies should revise debt sustainability frameworks to include climate and nature; build nature and climate factors into macro-financial models; link debt relief to binding nature and climate commitments; encourage early refinancing for non-market access countries with strong nature and climate actions; recapitalise MDBs and lengthen maturities for nature and climate investments; introduce debt service pauses in the face of large exogenous shocks; expand debt for climate or nature swaps; establish a finance facility against climate change; develop equity-like instruments for resilience; phase out environmentally harmful subsidies and strengthen carbon pricing; international finance institutions (IFIs) and UN organisations should create a unified platform for technical assistance and mutual support.
Global Sovereign Debt Roundtable (2025)	Shorten timelines between memoranda of understanding and actual bilateral agreements; support information-sharing; clarify and restructure the perimeter, including classification of claims, short-term debt, domestic debt, non-resident holders of domestic debt, and state-owned enterprise debt; permit flexible parameters, including cutoff dates, comparability of treatment between creditors; consider debt swaps, climate resilience debt instruments, liability management, engagement with credit rating agencies, non-bonded commercial debt, state-contingent debt instruments, collateralised private financing, debt management and support provided by MDBs.

The Jubilee Report (2025)	Extend and expand debt suspension initiatives; use debt-for-nature swaps carefully and transparently; incentivise private sector cooperation towards a second iteration of the Heavily Indebted Poor Countries Initiative (HIPC II); improve sovereign debt contracts; improve the recognition of climate vulnerability in debt sustainability analyses (DSAs); shift the framing of DSAs to growth; replenish the IMF's Catastrophe Containment and Relief Trust; reinvigorate SDRs; establish a fund for the repurchase of debt in distress; create a global climate fund; create a global fund to stabilise commodity prices; strengthen the global financial safety net; expand MDB lending in local currencies; curb predatory litigation; reduce the pre-judgement interest rate; introduce recovery caps; promote local currency financing; foster debtor coordination; strengthen South–South financial integration.
Sevilla Platform for Action (2025)	Strengthen fiscal systems and raise domestic resources; strengthen financing for crisis response; support local finance; address debt challenges through debt swaps, debt pause clauses and a borrower's forum; strengthen the international development cooperation architecture; tackle illicit financial flows.

Despite some positive impact, these initiatives do not appear adequate to deliver either debt sustainability or the fiscal space to enable significant climate action, albeit there have been some successes. Several large debt swaps have been important in selected countries. Debt pause clauses in the event of natural disasters and pandemics have been introduced, without higher cost, into debt contracts. SDRs have been recycled into the IMF's Poverty Reduction and Growth Trust (PRGT) and Resilience and Sustainability Trust (RST) programmes and on-lent or on-granted at long maturities. MDBs have introduced long maturity options. Surcharges have been reduced. However, taken together, these changes have been less ambitious than the HIPC programme, which provided about 1.5% of GDP to eligible participants (IMF, 2023a). Meanwhile, global policy uncertainty and tighter than anticipated global credit markets have further increased debt-related risks and squeezed fiscal space.

Strategic priorities for managing debt and investing in climate action

Forceful action is needed in four areas to create a virtuous circle of investment in mitigation, adaptation, resilience and nature that accelerates economic growth and generates enough revenue to service the debt, steadily improve creditworthiness, manage risk and reduce interest premiums (see Table 4.3). Once in motion, this virtuous circle would permit EMDEs to raise investment rates to levels of 30% of GDP or more by 2035. In the medium term, this scenario undoubtedly implies a rise in the ratio of debt/GDP, debt service to exports and debt service to public revenue, but a combination of domestic resource mobilisation (DRM) and structural reforms can offset any negative impact on creditworthiness until the long-term effects of stronger economic growth kick in.

Table 4.3. Strategic priorities and action agenda to tackle debt and create fiscal space for climate action

Address the legacy of high debt
• **Strengthen the G20 Common Framework**. The Common Framework is not dealing rapidly enough with legacy issues of indebtedness. A diverse group of multilateral, official and private creditors must each contribute in a fair and equitable way. Eligibility into the Common Framework process should be extended to include heavily-indebted middle-income countries; all heavily-indebted countries with sound climate programmes should be encouraged to participate early in the Common Framework process; and these programmes should be incorporated into the macroeconomic frame of the Common Framework.
• **Pursue all options for refinancing high-cost debt at more affordable rates.** Short-maturity and high interest private debt are at the core of debt servicing difficulties. Fresh money, guarantees and lengthened maturities for restructured debt to at least 30 years for countries with sound climate programmes can reduce debt burdens. New money from MDBs should be used, where feasible, to support incremental climate investments. Multilateral platforms for large-scale debt swaps can also refinance debt while promoting nature conservation.
• **Improve debt transparency.** Debt restructuring can proceed better and faster if data are more detailed and if differences with creditors are reconciled through periodic debt audits and public release of loan contracts and restructuring terms, including on domestic debt.
• **Establish a Borrower's Forum.** Sharing experience and enhancing collective voice among borrowers on each of the above priorities can enhance implementation and strengthen global platforms.
Lower the cost of capital and expand access to long-term financing
• **Develop innovative concessional or non-debt-creating climate finance,** including through South–South contributions, carbon markets, SDR allocations, debt swaps, voluntary levies and philanthropy (see Sections 5.3 and 5.4).
• **Review allocation criteria for concessional funds** to include project leverage and impact on vulnerability and resilience as well as country income and governance characteristics.
• **Enhance the role of MDBs in development finance.** MDBs provide below-market interest rates and long maturity loans that minimise debt burdens and that are best suited for the long-term investments in quality infrastructure required for climate action. They are also the main drivers of the desired tripling of private capital mobilisation and can use guarantees and other risk mitigation instruments to bring down the cost of financing (see Section 5.2).
Ensure macroeconomic stability and debt sustainability
• **Build a credible commitment for macroeconomic stability and debt sustainability.** The foundation for country creditworthiness lies in domestic resource mobilisation and strengthened policy and institutional environments. Credibility can be enhanced by, for example, establishing independent, local fiscal councils. It should be buttressed by

fiscal rules that are consistent with the desired speed and urgency of priority public climate and nature-related spending.

- **Revise the application of debt sustainability frameworks**. Debt sustainability models should be revised to integrate investment surges identified in NDCs and NAPs. Debt, investment and growth model simulations could then provide long-term pathways with higher growth and reduced climate risk compared with financial programming models.

Break the vicious cycle between vulnerability to climate shocks and unsustainable debt accumulation

- **Shock-proof vulnerable economies, as stressed by the Bridgetown Initiative and the V20.** Reducing the impact of natural disasters on country creditworthiness and indebtedness is increasingly important. Examples include adding debt service pauses following large natural disasters into standard debt contracts, including those with China; putting in place disaster-related pre-arranged financing at community levels; providing fast and predictable post-disaster financing, including through regional facilities; and working with insurance companies to identify gaps and innovate in risk management and risk pooling.

4.3. Boosting domestic resource mobilisation (DRM)

The key sources of domestic financing are public resources; private domestic financial and the private sector; and national development banks. Mobilising domestic resources – public and private – is foundational to accelerating climate investments. It will continue to account for the majority of estimated climate financing by 2035, amounting to around 60% of the total and 58% of the increment. Robust public DRM is the basis for fiscal sustainability and creditworthiness. It will enable increased government spending for transformative climate investments while managing debt sustainability. Fiscal resilience will also guard against procyclical financial flows and macro-critical impacts from external shocks. Moreover, public resources are essential for activities where private financing is not feasible, such as fostering a just transition, investing in adaptation, paying for loss and damage, and restoring natural capital.

Private DRM has significant potential to also play a central financing role. This has become even more valuable since the flow of external private financing to EMDEs has been limited and procyclical. Strengthening the domestic financial and private sectors will unlock long-term project financing and will also be the basis for attracting external private financing. In addition, governments can draw on their NDBs to catalyse private financing for national priorities, warranting support from the international financial system, and allocate domestic financial savings to support national priorities – although there are large differences in the scale and capacities of NDBs across countries.

While external financial support is often the major source in the early years of the transition, mobilising domestic resources will be critical to accelerating and sustaining climate investments as countries develop. Africa now relies much more than other regions on external financing, with domestic financing outside Africa broadly accounting for about half or more of total investment financing (Naran et al., 2025). Boosting domestic resources as countries develop will depend on strengthening governments' fiscal capacity and mobilising the domestic private and financial sectors.

Both domestic public and private financing face important challenges: significant headwinds have constrained fiscal resources since the COVID pandemic, and fiscal reforms

are difficult politically. The financial sector is underdeveloped in many countries, making the mobilisation of private capital for long-term investments even more difficult. Raising domestic resources to required levels is not expected immediately and will be a medium-term effort. The scope for scaling up public domestic resources is large, however, if governments realise existing tax potential, broaden carbon taxation, rationalise large and persistent harmful subsidies, and increase the efficiency of public spending. More effective allocation of domestic private savings and tapping NDBs will contribute to steering more financing to climate-aligned investments. Governments should intensify and sustain efforts to tap the potential from domestic financing and capture the significant opportunity from unlocking both public and private domestic resources. Acting now to build public capacity and create the enabling environment to better allocate domestic resources will be crucial to accelerating domestic financing for transformative investments.

Public domestic resource mobilisation (DRM)

Context

Mobilising domestic public resources will be critical to increasing financing to support climate and development objectives. Progress has been slow in increasing taxation and reforming public spending, but there is significant potential to raise fiscal revenues. A mix of policies to broaden the tax base, reform tax incentives and strengthen tax administration, including through digitalisation, will go a long way to reaching tax potential, if implemented well. Increasing carbon pricing could raise considerable revenues but will require managing political economy concerns. Large fossil fuel and environmentally harmful subsidies persist and need to be repurposed. Better public spending can improve outcomes and release significant fiscal resources that can be redirected, including for climate action. International cooperation should continue to advance in setting global tax rules that curtail tax avoidance practices in cross border transactions. Cooperation on carbon pricing globally or by a coalition of countries can help them coordinate national pricing policies to manage trade competitiveness and accelerate decarbonisation.

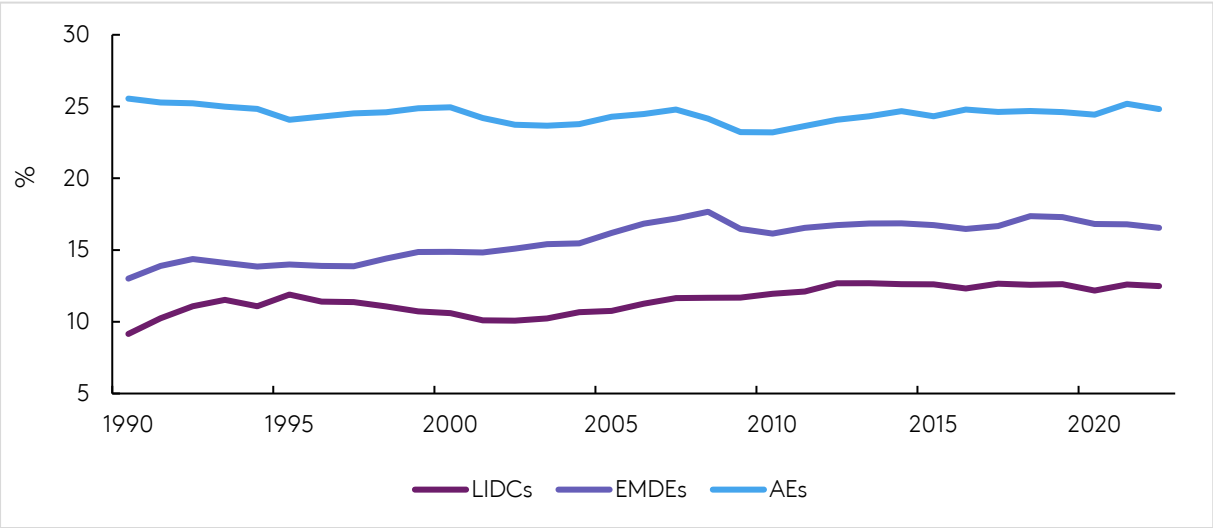
Challenges

Tax revenue

Progress in raising tax to GDP ratios among EMDEs has stalled, but there is significant tax potential. Progress has been slow since 2008 and largely absent in the last decade (see Figure 4.3). Most low-income and developing countries (LIDCs) have tax to GDP ratios well below 15% (IMF, 2023b) – with 15% considered the threshold to boost growth-enhancing investments. Structural constraints, such as large informal sectors and many small-scale firms, limit revenues, and some countries are dependent on just a few natural resources and commodities. Revenue administration capacity tends to be weak. All these factors combined lead to relatively narrow tax bases and low levels of revenue collection.

Nevertheless, according to the IMF, emerging market economies (EMEs) have upward tax potential amounting to an additional 5.1% of GDP to reach their tax potential – see Figure 4.4 (Baer et al., 2025). For low-income countries, the distance to potential is 4.7% of GDP. Tax to GDP ratios have differed markedly even among countries of similar levels of development (see Figure 4.5). Some countries, such as Nepal, Rwanda and Uganda, have significantly increased tax intakes, suggesting broad-based potential in other countries (IMF and World Bank, 2024b). Progress has been achieved through a combination of policies that broaden the tax base and tax administration reforms.

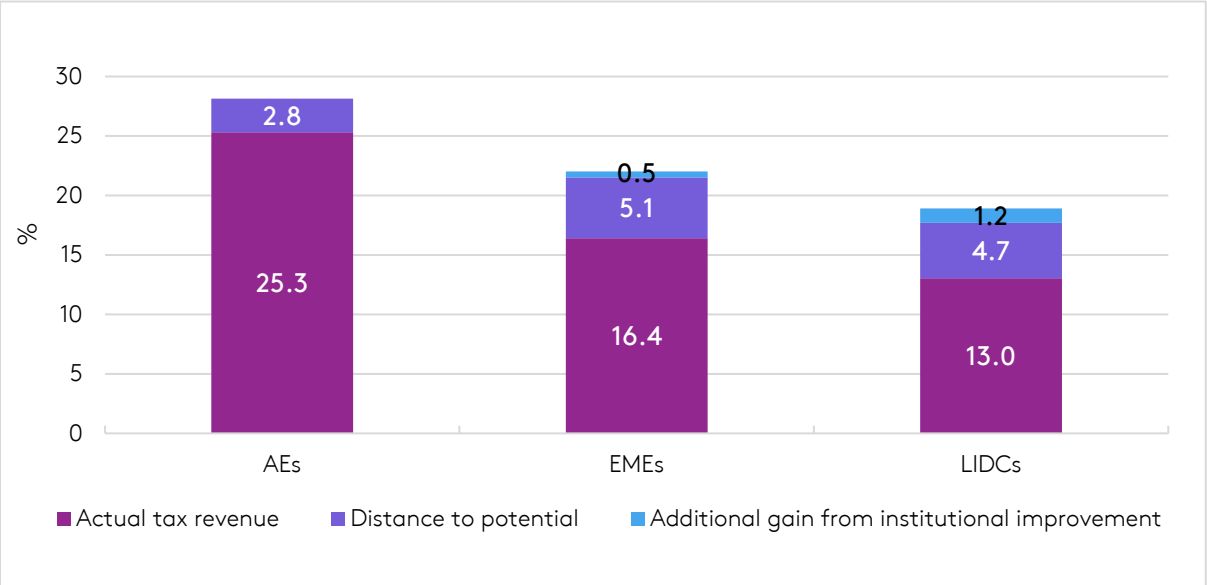
Figure 4.3. Tax revenue as a percentage of GDP, 1990–2022



Note: Tax revenue excludes social security contributions. For more details about the data, see Mansour et al. (2025).

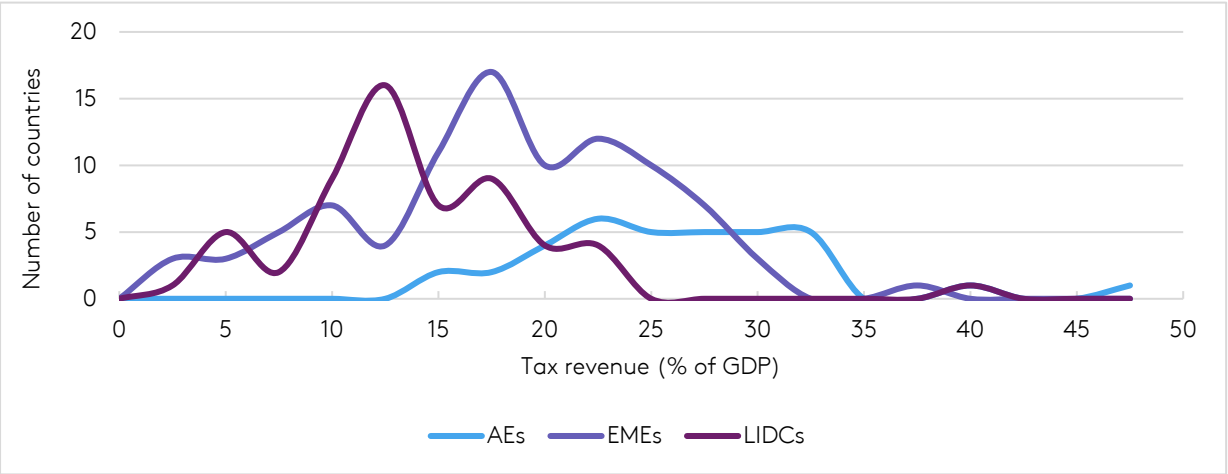
Source: IMF's World Revenue Longitudinal Data (WoRLD, 2025)

Figure 4.4. Tax potential in relation to actual tax revenues (percentage of country GDP, baseline estimates for 2021)



Source: Baer et al. (2025)

Figure 4.5. Country dispersion of tax to GDP ratios, 2021



Source: IMF's World Revenue Longitudinal Data (IMF, 2024)

There is significant scope to broaden the tax base to increase revenues, even without raising tax rates. A broad range of tax policy options will, if implemented well, increase tax intake and contribute to reducing tax gaps. Significant gains can come from addressing special tax incentives and expenditures, whose revenue foregone is estimated at around 25% of total tax revenues on average among EMDEs (GTED, n.d.). While some tax expenditures can be justified as addressing market imperfections, a large amount of existing exemptions have been used to attract direct foreign investment, which have proven ineffective, while leading to significant losses in tax revenues (IMF et al., 2015). Improving compliance in Value Added Tax (VAT), which most countries have in place, also has sizable tax potential (Benitez et al., 2023).

Other tax measures broaden the base of corporate and personal income taxes as well as excise and property taxes, both of which tend to have more significant and long-lasting revenue yields than rate changes (Amaglobeli et al., 2023). Additionally, taxation of the natural resource sector in many countries needs to be greatly strengthened.

Enhancing tax capacity is essential to realising the tax potential. A growing body of research shows that successful efforts to raise tax intake can address constraints on enforcement, tax administration and communication, which shape taxpayers' perception of the state (Jensen et al., 2024; Okunogbe and Tourek, 2024). The greater availability of digital technology, high quality data and partnerships between research and capacity-building providers have opened up valuable avenues to tackle these constraints, such as digitalising operations, modernising compliance risk management and improving expertise in tax administration. Adopting e-invoicing and using electronic systems strengthen tax administration and reduce transaction costs, and can mobilise additional revenues by up to 0.7% of GDP (Amaglobeli et al., 2023). IMF research shows that revenues can rise by more than 3% of GDP after a period of comprehensive tax administration reforms (Adan et al., 2023).

International assistance has been valuable in supporting countries to effectively use data-driven tools in assessing and guiding taxation measures. Two examples are the Tax Administration Diagnostic Assessment Tool (TADAT) delivered by the IMF and the World Bank (2024b), and the TaxDev initiative by ODI Global and the Institute for Fiscal Studies. Additionally, supporting countries to promote more inclusive tax policymaking processes will help increase citizen trust and promote shared ownership of reforms, leading

to better compliance and reduced enforcement costs (Wales and Lees, 2020; Yamou et al., 2024).

International tax cooperation has reduced global tax avoidance but will need to do more to improve its revenue potential for EMDEs. Efforts led by the OECD Inclusive Framework on country-by-country reporting and the automatic exchange of information have improved the tax transparency of cross-border transactions, and offshore tax avoidance globally has declined by a factor of 3 in under 10 years (Alstadsæter et al., 2024). More needs to be done, however, to tailor measures to the different administrative capacities to enable EMDEs to participate actively to reduce tax avoidance and contain illicit financial flows. Additionally, a fairer distribution of taxing rights on the profits of multinationals, based on their economic presence in home and recipient countries, will be critical to enhance the tax intake of EMDEs.

The introduction in 2022 of the 15% global minimum tax has been a promising step towards halting the race to the bottom in corporate taxation, but recent events seem to have weakened this commitment (Bunn and Bray, 2025). Implementation has also been hampered by new exemptions (Alstadsæter et al., 2024). Nevertheless, the global minimum tax prevents further decline in domestic corporate tax rates due to tax competition and motivates rationalisation of numerous tax exemptions, both of which can boost domestic revenues in EMDEs. Ongoing discussions at the G20 on a globally coordinated taxation of the ultra-rich presents another promising area of international coordination that will help national efforts to tax wealthy individuals and reduce tax avoidance.

The development of the UN Framework Convention on International Tax Cooperation, driven by a coalition of EMDEs, presents an unprecedented opportunity to improve inclusivity and create a more equitable system of global tax governance. The ongoing negotiations on the UN Convention will be important moments to put on the table reforms to allocate taxing rights fairly, strengthen cross-border digital taxation, and enhance the ability of countries to mobilise domestic resources for development and climate action.

Carbon pricing

More countries are advancing carbon pricing, implemented through carbon taxes or emissions trading systems (ETSs). Both provide incentives to decarbonise and raise potentially large additional fiscal revenues. All large middle-income countries are now implementing or planning direct carbon pricing, such as Brazil and India, mostly through ETSs (World Bank Group, 2025c). Direct carbon prices now cover 28% of global emissions and more than half of power sector emissions, but the average carbon price remains low (World Bank Group, 2025c).

Advancing carbon pricing is an important tool to reduce emissions and raise revenues, but balancing climate objectives and the distributional impact and political economy of rising carbon prices is a difficult issue. The 2017 High-Level Commission on Carbon Pricing recognised that the level of carbon pricing that is needed to achieve the Paris Agreement will lead to unacceptable distributional costs across society, and using carbon pricing as a sole instrument is not economically sound. Countries will need to pursue a mix of carbon pricing, regulation and distributional mechanisms to address other market and government failures and equity considerations in tackling climate change (Stiglitz et al., 2017).

Trade restrictions are also complicating carbon pricing, which differs in pace across countries. Implementation of the EU's Carbon Border Adjustment Mechanism (CBAM) is raising concerns among EMDEs. The CBAM is spurring the expansion of carbon pricing,

particularly in EMDEs. Türkiye, Malaysia, Vietnam and China have aligned their recent expansion of carbon pricing with CBAM sectors, and more countries are likely to do the same. The CBAM's implementation, however, has raised concerns about fairness and the disproportionate burden on developing countries. One crucial concern is how to determine the carbon price already paid in exporter countries, beyond the explicit carbon price (Bonnet, 2024). Countries have asked for recognition of non-price regulations, carbon capture and storage, and carbon offsets to fully capture the carbon price equivalent paid in the exporting jurisdiction (IETA, 2025). Not doing so risks underestimating the carbon mitigation efforts of countries using non-pricing measures (He and Uy, 2023).

Different carbon reporting systems and data challenges across jurisdictions highlight the importance of interoperability to ease comparability, transparency and trust in a coherent carbon accounting framework. There is, in addition, greater advocacy for using CBAM revenues to support EMDEs to decarbonise (Bonnet, 2025) and reduce the competitiveness gap.

Furthermore, the risk of fragmentation is fostering discussions on the need for multilateral coordination in carbon pricing, as well as the potential of cross border adjustment mechanisms by a broader coalition of countries,[14] including at the regional level (Rahut et al., 2025), beyond the EU.

Harmful subsidies

Large environmentally harmful subsidies persist. They remain large globally and continue to expand. They weigh on government resources, cause significant environmental damage and tend to flow to wealthier beneficiaries. Explicit fossil fuel subsidies remained high at $600 million in 2023, even after falling from a peak of more than $1 trillion in 2022 (see Table 4.4). Governments are also spending an additional $1.2 billion on explicit subsidies for agriculture, fisheries, water, transport and plastics, many of which support actions that degrade land, increase forest loss, reduce fish stocks and increase greenhouse gas emissions (Damania et al., 2023). Many subsidies are poorly targeted: for example, only 6% of the large water subsidies benefit the lowest income quintile (Thibert et al., 2019).

In addition to explicit subsidies, there are enormous implicit subsidies arising from the significant environmentally damaging behaviour that is brought about by the subsidies, poor regulation and their incentives. For example, implicit fossil fuel subsidies amount to an estimated $5.7 trillion from undercharging for environmental costs and foregone consumption taxes (Black et al., 2023). Implicit subsidies to agriculture could reach $5.3 trillion from impacts on greenhouse gas emissions, natural capital loss and pollution (Pharo et al., 2019).

The scarcity of climate and development financing, along with sustainability challenges, makes it imperative to eliminate and repurpose harmful subsidies, but progress has been slow on this front. The IMF estimates that reforming fossil fuel prices alone would raise an estimated $4.4 trillion of revenues or 3.6% of global GDP in 2030 (IMF, 2025c). Several initiatives are now part of national strategies to reduce carbon emissions in which the phase-out is accompanied by appropriate compensation and social protection measures for vulnerable groups affected by increased energy prices and the loss of subsidies. There is, however, a long way to go.

[14] A report by the Global Climate Policy Project (2025), due to be finalised by COP30, investigates the implications of a coalition of countries willing to coordinate on pricing and impose a carbon border adjustment but also to provide incentives/climate finance to non-member developing countries.

Table 4.3. Scale of environmentally harmful subsidies by sector

Sector	Explicit subsidy estimates
Fossil fuels	**$600 billion** in estimated fossil fuel subsidies for 191 countries in 2023 (IEA, 2024c)
Agriculture	**$635 billion** in estimated agricultural subsidies for 84 countries (based on data from Gautam et al., 2022)
Fisheries	**$35.4 billion** in estimated fishery subsidies for 152 countries (Sumaila et al., 2019)
Water	**$320.0 billion** in estimated subsidy of water and sanitation utilities covered in the World Bank's Water and Sanitation database (Thibert et al., 2019)
Transport	**$180.0 billion** in estimated tax subsidies for ground transport, aviation and shipping (Koplow and Steenblik, 2024)
Plastics	**$30.0 billion** in production subsidies (excluding subsidies of energy used) (Koplow and Steenblik, 2024)
Total	**$1.8 trillion**

Notes: This table draws on the summary of subsidies provided by Damania et al. (2023). The estimates, derived from various studies, are likely to be underestimates given data constraints.

Efficiency of public spending

Improving the effectiveness of public spending can significantly enhance growth prospects without increasing overall spending. There is substantial potential to allocate fiscal resources more effectively to enhance growth outcomes, particularly by addressing the decline of investment spending in recent years, and to close efficiency gaps in spending (IMF, 2025d). We focus on the latter below.

Institutional reforms will be essential to improve the efficiency in public spending. Evidence shows that developing countries waste an average of about one-third of infrastructure spending due to inefficiencies, and the loss can be as much as 50% in low-income countries (Schwartz et al., 2020). IMF research shows that over half of these losses can be avoided by improving infrastructure governance. Successful examples include developing comprehensive governance systems, improving the transparency and integrity of public procurement, and maintaining the value of public infrastructure assets by building resilience against climate change.

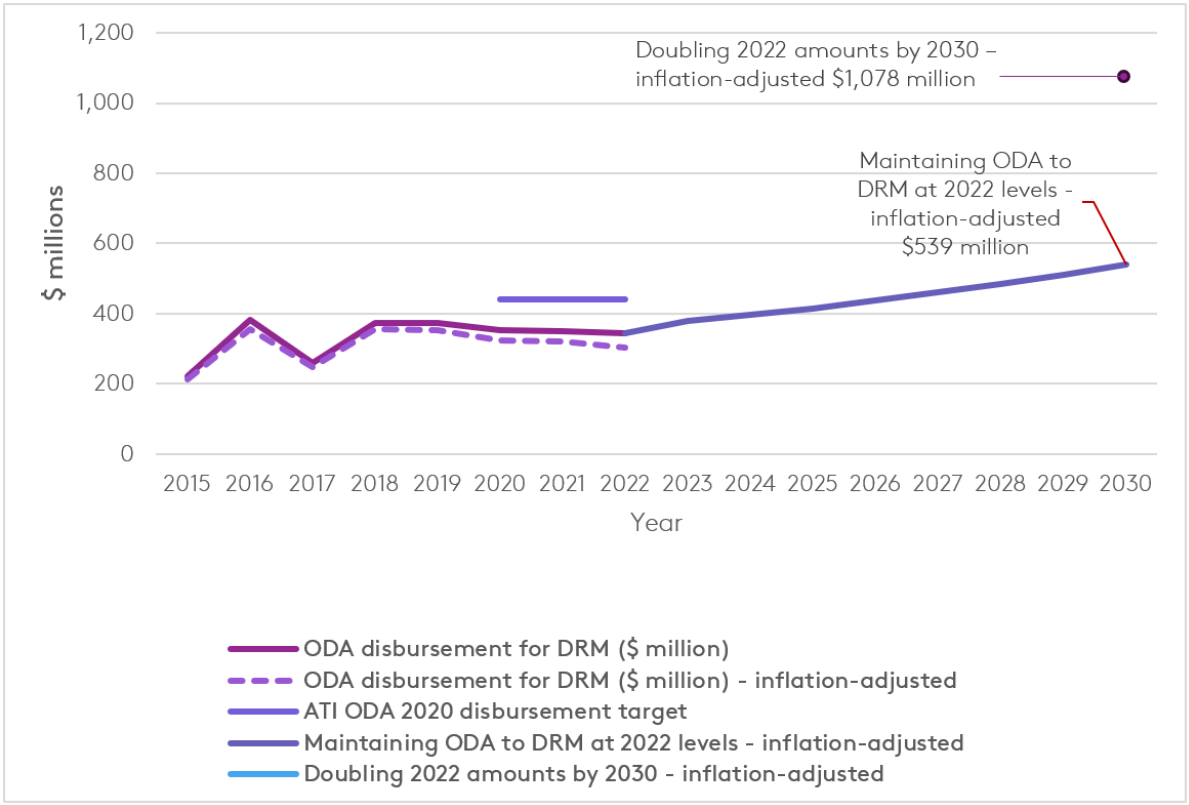
Better procurement practices alone could yield substantial savings since about a quarter of GDP flows through public procurement in developing countries. Introducing centralised procurement and framework agreements will generate the greatest potential savings, but even smaller reforms will be valuable. According to a World Bank review of the outcomes of major public procurement reforms, saving even 1% of the estimated $11 trillion spent on procurement globally will generate $110 billion annually (Fazekas and Blum, 2021).

Harnessing digitalisation can also improve the efficiency of public spending and delivery of social protection and other public services, but progress has been uneven among EMDEs (Fazekas and Blum, 2021). Digitalisation of public financial management, public expenditure and procurement enhance fiscal transparency and spending efficiency. Using digital technology improves the delivery of social safety nets to target populations and of spending on health and education. More public investment in digital connectivity is needed to widen affordable user coverage and foster access. The change process will need strong leadership from policymakers and the development of institutional capacity and staff expertise, which can benefit from concerted support from international organisations, including the IMF, OECD, MDBs and the UN.

The impacts of climate-induced disasters can be severe, eroding fiscal resilience. Addressing these impacts will need to be part of fiscal planning, particularly in climate-vulnerable countries. Work at the IMF on the macro-implications of major disasters such as droughts, storms and floods shows major reductions in output growth and government revenue (IMF, 2019; Fuje et al., 2023). Moreover, fiscal expenditure to respond to disasters is limited, possibly reflecting constrained fiscal space. In some cases, weaker fiscal positions, partly because of lower output, may lead to an upward trend in debt. Integrating disaster risk management to build fiscal resilience will manage these macro-critical impacts: responses could combine fiscal buffers and rules, pre-arranged support from MDBs and other IFIs, and disaster insurance. A notable example is the disaster risk management strategy of the Philippines, which matches instruments to the type and level of disaster risk. It utilises a combination of fiscal measures, risk transfer instruments such as catastrophe bonds, and subsidised insurance for farms and households (World Bank Group, 2024a).

In all these areas, increased and more effective international support to build domestic capacity is essential. The IMF, World Bank, UN and OECD are important longstanding providers of technical assistance on DRM. They also collaborate to deliver the Platform for Collaboration on Tax to develop guidance and tools to assist developing countries in dealing with priority international taxation issues. The joint IMF and World Bank initiative launched in 2024 has been stepping up its collaboration on DRM, motivated by the significant resources needed to meet the SDGs and climate goals (IMF and World Bank, 2024b). The initiative will provide demand-driven assistance in three foundational areas: tax capacity, spending effectiveness and public debt markets. Donors have also supported countries in boosting DRM, but have fallen short of doubling ODA, as promised in the 2015 Addis Tax Initiative. Instead, taxation-related ODA has been declining since 2018 – see Figure 4.6 (Sanjeeda et al., 2025). There are significant payoffs to building public capacity for DRM, and donors collectively should continue to aim to double their ODA for DRM, especially for low-income countries, by 2030, a goal that the 2025 Seville Commitment reiterates.

Figure 4.6. ODA allocations to DRM projects, 2015–2022, and projection scenarios to 2030



Source: Addis Tax Initiative (ATI) and Sanjeeda et al. (2025)

Strategic priorities for public domestic resource mobilisation

Scaling up climate-aligned investments while maintaining fiscal sustainability will require governments to accelerate reforms in taxation and public spending. Both have ample potential to raise greater fiscal revenues while also fostering policies that promote green and climate-resilient investments. Their implementation will largely depend on concerted national efforts to make fiscal policy work for climate and development, with the support of international tax cooperation and development partners.

Table 4.5. Strategic priorities and action agenda for public domestic resource mobilisation

Broaden the tax base and strengthen tax capacity: EMDEs should intensify tax policy reforms to address constraints on enforcement and compliance
• **Rationalise tax incentives** so they are provided only to address market imperfections.
• **Implement a corporate minimum tax,** in line with the global minimum rate of 15%, with limited exemptions.
• **Improve VAT compliance, enhance the revenue potential of excise taxation, develop the system of Personal Income Taxation and modernise property taxation.**

- **Broaden the tax base and build tax capacity** to improve revenue administration, including using digitalisation and data-informed approaches, with support from the IMF, World Bank, OECD, UN and bilateral organisations.
- **Develop inclusive and transparent tax policymaking processes** to engage taxpayers and the general public.

Strengthen international tax cooperation: international collaboration should reduce tax avoidance and harmful competition

- **Advance measures and tax cooperation to contain tax avoidance and profit shifting**, tailored to EMDEs' administrative capacities.
- **Work towards a fairer allocation of taxing rights on multinationals profits.**
- **Enhance cooperation through multilateral forums to reform global tax rules and minimise harmful tax competition.**

Adopt carbon pricing for the green transition: EMDEs should adopt carbon pricing to drive decarbonisation and raise revenues, while managing distributional constraints

- **Introduce carbon pricing instruments alongside complementary regulations and policies** to address market failures and mitigate adverse social effects.
- **Ensure CBAMs** recognise both explicit carbon prices and equivalent regulatory measures in exporting countries.
- **Promote interoperability** of carbon reporting systems to enhance transparency.

Phase out harmful subsidies: countries should gradually eliminate fossil fuel and other environmentally harmful subsidies, while addressing the political economy of reform

- **Integrate subsidy reform** into NDCs, NAPs and broader climate-related national strategies.
- **Pair subsidy removal with compensatory measures** for vulnerable groups to manage distributional impacts and secure political buy-in.
- **Enhance transparency and communication** to build public support for reform.

Enhance efficiency and resilience of public spending: EMDEs should strengthen fiscal frameworks to improve spending efficiency and build resilience

- **Improve the governance systems of infrastructure spending,** including through capacity-building.
- **Strengthen the integrity and transparency of public procurement,** including by introducing centralised procurement frameworks.
- **Harness digitalisation** to improve the efficiency of public spending and delivery of social protection and other public services.
- **Implement disaster risk management strategies** to build resilience, using a mix of fiscal spending and buffers, insurance instruments when feasible, and pre-arranged financing.

Scale up international support for capacity-building: global partners should step up assistance to EMDEs in revenue mobilisation and public spending

- **Expand technical assistance and capacity-building** through the IMF, World Bank, OECD, UN and other institutions.
- **Double bilateral ODA** dedicated to strengthening DRM and fiscal management.
- **Foster knowledge-sharing and peer learning** across EMDEs.

Private domestic resource mobilisation (DRM)

Context

Domestic private finance plays a critical role in aligning finance with climate goals. It encompasses banks, contractual savings institutions, capital markets and corporates. With appropriate regulatory frameworks, capital can be strategically allocated to investments that support national climate priorities to help bridge financing gaps, especially when external private financing is falling short of need. Financial institutions can deploy innovative instruments to increase the domestic investor base for climate investments, evaluate and manage climate risks, and catalyse financing. They can also support firms and households to build resilience and restore natural capital that are critical to the livelihoods of many. Financing can be allocated to capture transformative investment opportunities that support climate and development goals.

The increasing depth of financial sectors in many EMDEs presents opportunities and challenges to better align the allocation of domestic financing with climate goals. Domestic financial assets under management in EMDEs, comprising banking, insurance and pension assets, amounted to about $17 trillion in 2022 and are projected to increase to about $46 trillion by 2040 as economies grow and financial sectors deepen (Blended Finance Task Force et al., 2024). The banking sector dominates in all regions, accounting for 80% of financial assets, but the pension and insurance sectors are expected to expand at a slightly faster rate, as pension reforms accelerate in EMDEs (ibid.). Still, a large amount of financial assets is held in government debt and short-term assets. Initiatives are emerging among financial institutions and regulators to steer investments to alternative and longer-term assets but more needs to be done.

Banks are a major source of domestic private financing, and there is scope to steer more of their financing for climate action. Some regulators have adjusted loan-to-value ratios to incentivise energy efficiency, including green and sustainable bonds as collateral. Central banks have offered favourable financing so that banks can on-lend at below market rates to renewable energy projects (e.g. in Egypt), and have reduced reserve requirements for lending to green projects (e.g. in Bangladesh and India). At the same time, more financial regulators are stress-testing the financial sector's vulnerability to climate risks (NGFS, 2023a). To advance long-term financing, banks are exploring mechanisms to tap capital markets, such as using structured financing that will shift sustainable lending to the capital markets and enable banks to recycle their capital and expand their lending capacities.

Institutional investors are critical to unlocking long-term investment financing. Pension funds' assets, which comprise a large and growing share of GDP in some EMDEs (Agrawal et al., 2025), can be better mobilised to scale up long-term financing. Adjusting regulations to facilitate investments in new asset classes, while maintaining the safety of pension assets, is part of the solution. This should be

complemented by efforts to build pipelines of bankable projects that are yielding results, such as in South Africa. More investment vehicles are being put in place that address the risk–return preference of institutional investors, such as the InfraDev funds in Colombia. Namibia combines regulatory mandates for infrastructure investments with the introduction of secure investment vehicles to channel investment flows to project financing and a system to measure development outcomes (World Bank Group, 2020). Groups of institutional investors, such as in the Pacific Islands, are collaborating to pool financial resources in a co-investment model to finance investments in climate-smart infrastructure and crowd in additional financing (IFC, 2021). These initiatives have entailed collaboration among governments, regulators and pension funds (and their asset managers).

Local currency bond markets (LCBMs) have grown significantly, creating opportunities to expand the base of investors. Local currency debt doubled in middle-income countries between 2015 and 2023, which helped many governments build fiscal space and supported resilience even during periods of global financial stress (IMF, 2025e) while avoiding foreign currency risks, especially following the shock of the pandemic. A strong public debt market also sets a credible yield curve that is foundational to expanding domestic bond markets. LCBMs in some countries have also attracted non-bank and domestic and external institutional investors (Lindner and Chung, 2023), albeit still at a low base and the latter requiring managing financial volatility risks. Issuance of ESG bonds, which has occurred predominantly in developed countries, has also increased in EMDEs, notably in Chile, Brazil and Thailand, as well as Barbados, the Dominican Republic and more, offering an asset class to investors seeking ESG investments. Strengthening LCBMs in EMDEs will require building liquidity and secondary markets and attracting more institutional investors and corporates.

Governments and donors are leading initiatives to mobilise private domestic financing for climate investments. National climate, nature and resilience investment plans are being developed to create enabling conditions and build project pipelines that are necessary for domestic financiers to invest in. Brazil's Ecological Transformation Plan, Namibia's Green Hydrogen Strategy and Bangladesh's Climate Prosperity Plan are notable examples. Brazil, Chile and India introduced competitive auctions that allow local private investors to finance and/or operate new electricity transmission lines. South Africa launched a similar programme in late 2024. At the same time, catalytic capital mechanisms are being created, such as the establishment of credit enhancement mechanisms in Kenya (*Dhamana*), Nigeria (*InfraCredit*) and Pakistan (*Infrazamin*) to mobilise domestic capital for sustainable infrastructure for the energy transition (Blended Finance Taskforce et al., 2024).

Beyond project financing, domestic financial institutions play important roles in assisting small and medium-sized enterprises (SMEs) and households in managing the climate transition. SMEs are important contributors to global carbon emissions and consumers of energy.[15] SMEs and poor households are disproportionately affected by climate impacts, often suffering major losses in income and assets due to extreme weather events and struggling to recover financially (World Bank Group, 2024a). More SMEs are more actively managing climate risks but identify poor access to financing and fiscal support as major impediments (SME Climate Hub, 2025). Domestic public and private financial institutions are also increasingly integrating climate considerations into their SME operations (OECD, 2023), driven primarily by regulatory requirements,

[15] SMEs on aggregate contribute significantly to carbon emissions and pollution (OECD, 201). Globally, they account for 50% of greenhouse gas emissions (ITC, 2021).

implications of climate risks for their operations, and demand. Both financial institutions and SMEs identify limited data, internal capacity and delivering the appropriate mix of debt and catalytic instruments as major impediments to enhancing assistance.

Challenges

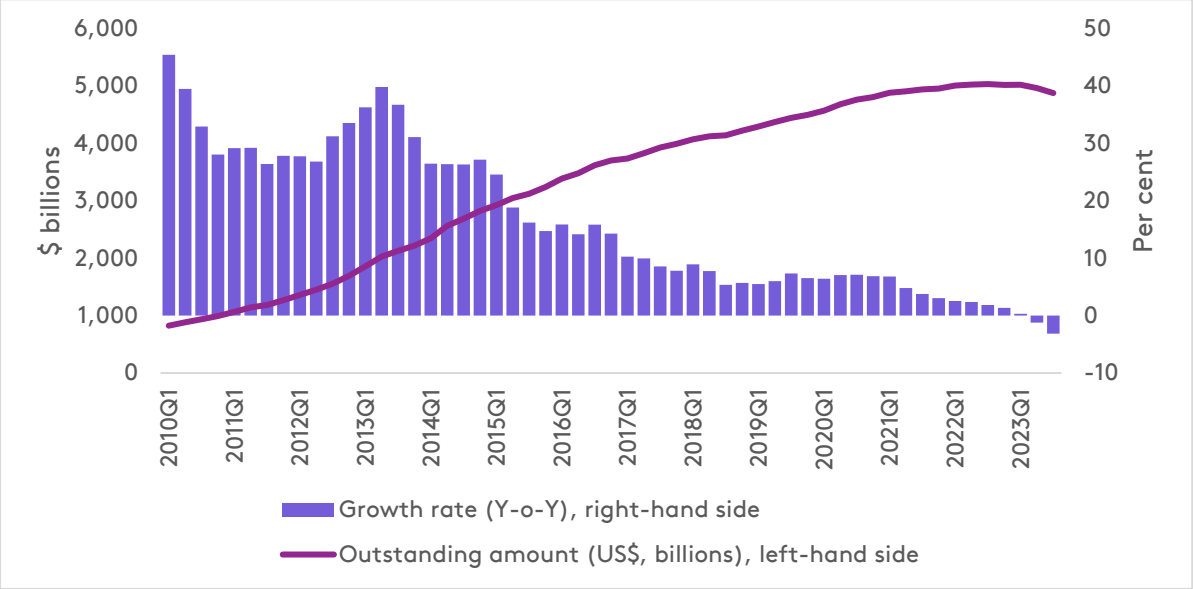
To unlock the potential of domestic private climate financing, more needs to be done to improve the allocation of financing to climate-aligned investments, ensure an enabling investment environment, modernise regulatory frameworks, and increase the availability of catalytic financing. Countries will need to adapt their action agenda to their country circumstances and initial conditions, but these common challenges need to be addressed.

Allocating capital to long-term and climate-aligned investments

In a survey conducted by the World Bank Group (2024d) of banks covering almost all EMDE banking assets, climate-related lending in 60% of these banks' loans represented 5% or less of their loan portfolios. Beyond banking, the growth in pension fund assets in recent years has not translated into greater depth in capital markets: pension funds and insurance companies invest largely in government bonds – as much as 80% of assets – while growth in bonds issued by non-financial firms has slowed down in the past few years (see Figure 4.7). The post-pandemic investment slowdown, surge in government borrowing and absence of alternative assets are reinforcing these trends – which in turn convey the importance and urgency for governments, financial institutions and regulators, working together, to better understand and integrate the impacts of climate risks and the high returns from climate-aligned investments into their financing decisions. Making finance work needs to combine policies and initiatives to develop the financial sector and allocate more private financing to climate-aligned investments.

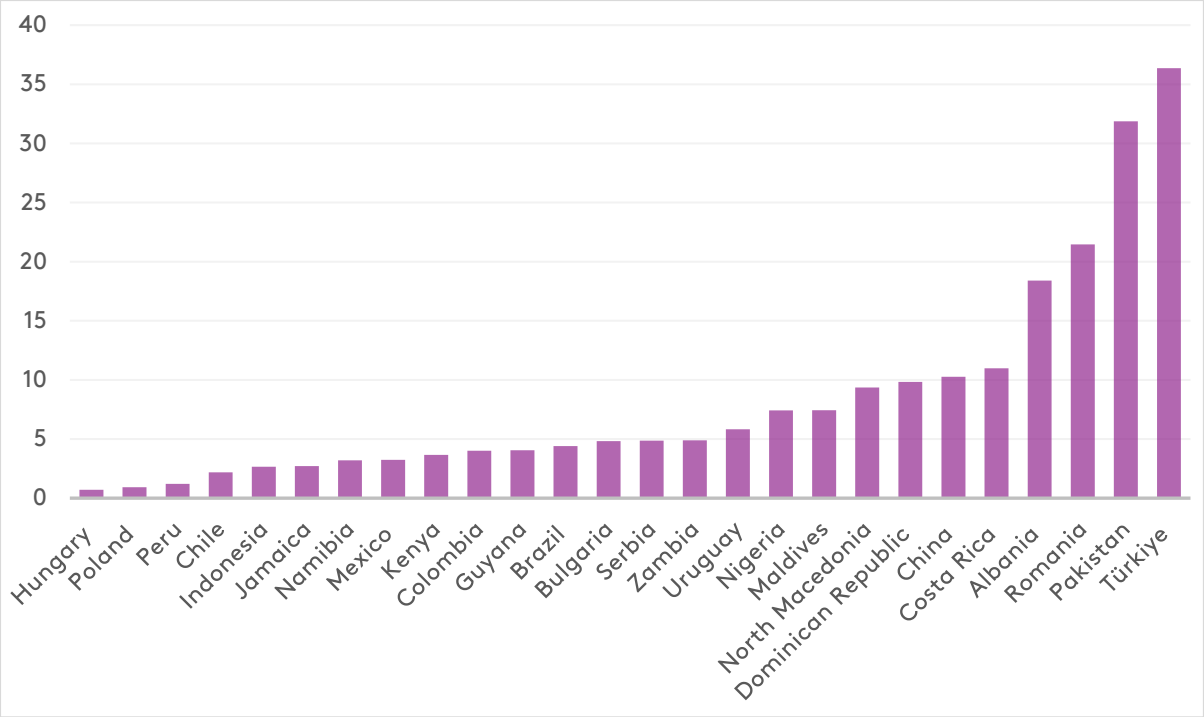
Figure 4.7. Growth of investor assets in many EMDEs has not translated into widespread capital market deepening

a. Outstanding stock of bonds issued by non-financial firms in EMDEs ($ billions) and annual growth rate (%)



Note: Total volume outstanding for 41 countries, 18 lower-middle-income, 17 upper-middle-income, and six high-income EMDEs.

b. Growth in domestic pension fund assets in selected EMDEs (2010–22; y-axis shows growth factor as times of assets in 2010)



Note: Sample covers 26 EMDEs; growth factor is the factor by which the initial level of domestic pension fund assets increased between 2010 and 2011.

Source: World Bank Group (2024d)

Inadequate enabling environment to expand sustainable investments

Mobilising domestic private financing for climate action requires policies, bankable projects, financing vehicles and institutional capacity to unlock investor financing. Efforts in these areas are growing, but are still insufficient to accelerate climate financing. Current issues include:

- **Climate policies such as carbon pricing or emissions regulations do not provide adequate incentives for climate action,** even though investment plans and financial commitments are increasing. Large, environmentally harmful subsidies remain.
- **There are insufficient bankable project pipelines.** Building such pipelines will need enabling climate policies but also the technical assistance and early-stage risk-taking capital that remain limited. Experience from South Africa's renewable energy initiative, for example, has shown that continuous availability of bankable projects generates and sustains investor interest.
- **Need remains for financing vehicles for institutional and other investors.** Beyond developing project pipelines, investment funds that are tailored to the risk–reward requirements of institutional investors will help unlock investment for projects.
- **Capacity gaps persist in climate technology and projects.** Domestic financial institutions, policymakers and regulators often lack expertise and tools to assess complex investments, especially those involving new technologies (Blended Finance Taskforce et al., 2024).

Underdeveloped financial markets and inadequate regulations

Underdeveloped financial systems limit the availability of long-term financing. Financial market infrastructure and regulations need to evolve to crowd in more investors with the financial savings to support climate investments. Current issues include:

- **Inadequate long-term financing for sustainable investments.** Climate investments are typically infrastructure-heavy and characterised by long time horizons. Limited depth and liquidity of capital markets and the short-term horizons of the banking sector create important barriers to the availability of long-term financing. Efforts to develop financial market infrastructure for longer-term debt and equity instruments need to intensify, which could be supported by IFIs.
- **Investment regulations need attention.** Those regulations governing pension funds, for example, influence decisions on portfolio diversification beyond government bonds to new asset classes, including climate-smart investments. Reforms could expand the ability of institutional investors to invest in new long-term asset classes, while maintaining prudential norms. External assistance can be catalytic: initiatives such as the African Development Bank's Capital Market Development Trust Fund have strengthened regulatory frameworks, across West Africa in this case.
- **Green finance frameworks** are valuable for investors in new asset classes, and new green asset classes require clear definitions and updated regulatory frameworks. Sustainable finance taxonomies are playing a greater role in environmental/social/governance (ESG) issuances (Lindner and Chung, 2023), but not all countries have green taxonomies in place.
- Governance structures that encourage transparency and accountability need greater attention to crowd in domestic and foreign institutional investors.

Scarcity of affordable catalytic finance to mobilise private resources

Existing catalytic financing facilities target external more than domestic private resource mobilisation. Lending by MDBs/DFIs is predominantly in foreign currency. As such, managing currency risk remains expensive for EMDEs, especially under relatively high currency fluctuations. Access to catalytic and early-stage financing to mobilise domestic private financing will be valuable. Current issues include:

- **De-risking mechanisms to mobilise domestic financing are limited.** Promising tailored local currency de-risking solutions are emerging and need to be replicated and scaled up.
- **Targeted support in the early stages of project preparation is also limited.** Such support has proven effective in building robust project pipelines in InfraCo and Africa50.
- **Significant transaction costs are added due to complicated procedures to access finance for local developers and entrepreneurs.** Many domestic investors are also still unfamiliar with available de-risking and other catalytic instruments (Blended Finance Taskforce et al., 2024).

Lack of consideration for boosting inclusive financing for climate resilience

Despite the importance of SMEs in the transition to low-carbon and climate-resilient economies, enhancing assistance to these groups is largely neglected in climate policy discussions (Hampton et al., 2023). Current issues include:

- **SMEs are not given attention in many national climate strategies.** Greater attention to financial inclusion and its role in addressing climate change can inform policy and financing approaches, including mobilising national development banks.

- **Procedures to access finance tend to be onerous for SMEs.** Complicated procedures add significant transaction costs for local developers and entrepreneurs. Many are also unfamiliar with available de-risking and other catalytic instruments.
- **Regulatory requirements are not adapted to the capacities of SMEs.** Financial regulation motivates more climate financing and its design can be better adapted to the capacities of SMEs. This can be complemented by assistance for capacity-building and learning from existing initiatives, such as practices in countries including Türkiye, Kenya, Tanzania and India.

These constraints are compounded by complex macroeconomic policies and developments in the global financial architecture. Fiscal constraints increase the need for government borrowing, which often crowds out investments in alternative assets. Reduced development assistance could constrain support for developing domestic financial markets, although this also argues strongly for national efforts to use their domestic capital more effectively.

Strategic priorities for mobilising domestic private resources

Pathways to mobilising domestic private resources for climate, nature and resilience will clearly depend on country circumstances and initial conditions. The actions below are therefore meant as a starting point and priorities and pace will need to be adapted to country and regional circumstances. Moreover, the domestic private finance agenda overlaps and is synergistic with attracting external climate finance, as discussed in Section 5.1. It is indeed in many ways a necessary foundation for attracting external private finance at scale.

No single action will unlock domestic private resources for climate, nature and resilience at scale. Building domestic financing capacity will require strong collaboration between EMDEs and donor governments and with the private financial sector, regulators and catalytic capital providers. Strong partnerships will be needed to make meaningful progress in building and implementing national and regional investment plans and creating the right economic enabling conditions. These actions can yield a virtuous cycle: greater mobilisation of domestic financial resources will build climate-aligned investments that will boost economic growth, which in turn will generate more financial assets that will be reinvested to further promote green and resilient growth.

Table 4.6. Strategic priorities and action agenda to mobilise domestic private resources

Strengthen mechanisms to channel financing to climate-aligned investments
• **Develop national climate investment plans (and project pipelines) and incentives with the private financial sector.** These types of plans are effective when co-created with domestic investors and aligned with sectoral roadmaps and incentive schemes (Manning et al., 2024).
• **Design public-private partnerships (PPP) for climate-positive infrastructure.** These involve developing standardised contracts, transparent procurement and community engagement mechanisms that are key to attracting investment and ensuring local benefits.

- **Build investor capacity and expertise in new green asset classes.** First-of-a-kind transactions, training programmes and technical assistance can build confidence and expertise, enabling more informed investment decisions.

Reform and modernise local financial market policy, regulations and frameworks

- **Modernise investment rules to enable pension funds and insurers to invest in new assets**, including sustainable infrastructure, while managing portfolios prudently.
- **Revise risk assessment, capital adequacy and liquidity frameworks to consider climate risks and the value of de-risking instruments.**
- **Invest in climate-aligned corporate credit ratings, improve methodologies and data sharing,** and collaborate with regional agencies to improve the accuracy of assessments and financing terms.
- **Provide technical assistance to market regulators.** This is critical to building markets and greater understanding of climate, nature and resilience investments, and relevant innovations.
- **Enhance financial inclusion for SMEs and households, devise manageable regulations, provide capacity-building and improve data availability.**

Increase catalytic finance and deploy it more effectively

- **Enhance the MDBs'/IFIs' ability to provide catalytic financing in local currency.**
- **Increase collaboration between MDBs/IFIs and regional/national development banks** in providing catalytic financing and enhancing knowledge-sharing.
- **Provide seed funding/grants to build pipelines, particularly early-stage equity and project preparation grants**.
- **Increase use of local currency de-risking mechanisms** to reduce currency risk and attract institutional investors.
- **Facilitate securitisation of green assets of local banks.** Creating vehicles to securitise and offload existing climate-related loans from the balance sheets of domestic banks to institutional investors would make capacity available for new bank lending.

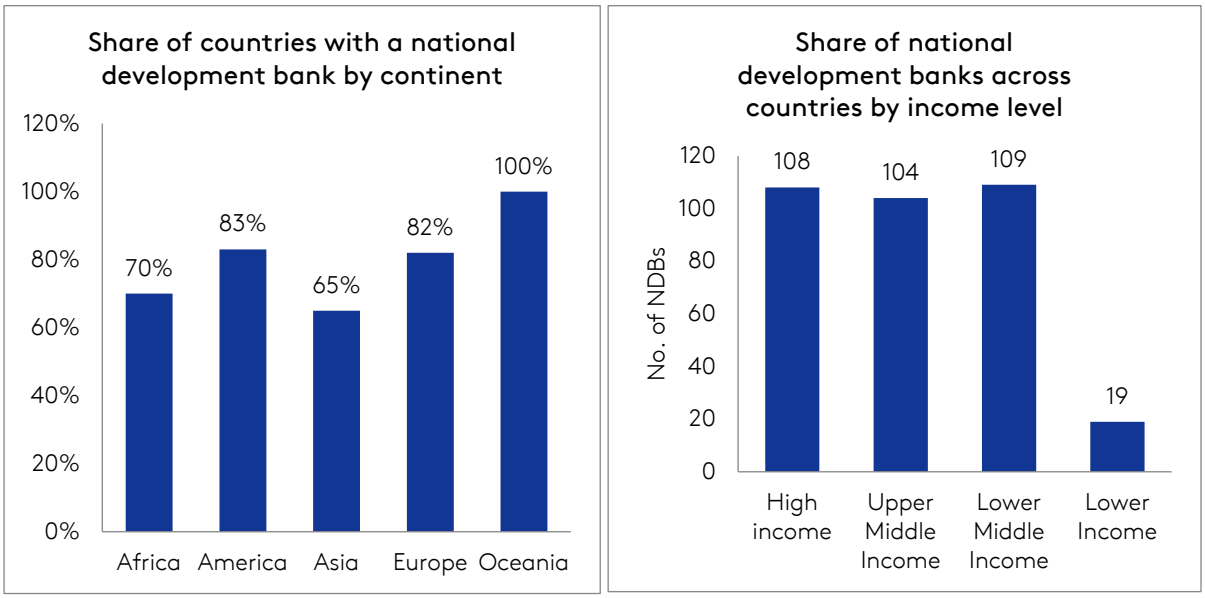
The role of national development banks (NDBs)

Context

There is a growing recognition that national development banks are well-positioned to be strong catalysts in scaling up transformative climate investments. NDBs, which are state-owned entities created by governments to support national economic and social goals, have been longstanding financiers of projects that the private sector and financial markets have not been able to finance. As countries increase their national climate ambition and given the scale of the financing need, NDBs are also increasingly expected to intensify their role not only as direct financiers but also as catalysts to mobilise both public and private financing. NDBs can build on the valuable strengths they have built in development lending to advance this enhanced role. To unlock their potential as catalysts and mobilisers of financing, however, they will need to address challenges in their institutional frameworks and expertise, financial capacity, and access and engagement with international financial institutions and markets.

NDBs account for a substantial share of development capital in many EMDEs, with a lending footprint in all regions in the world (see Figure 4.8) and in a broad range of national priority sectors (Marodon et al., 2025). They represent the vast majority of development banks among the public development financial institutions globally (FiCS, 2025). Large middle-income countries are home to the largest NDBs, with the largest being BNDES in Brazil, followed by development banks in India. Most of the larger EMDEs have several NDBs, while smaller ones typically have at least one. Some NDBs have broad development mandates, e.g. BNDES in Brazil, DBSA in South Africa and BPMB in Malaysia, while many focus on specific sectors such as manufacturing, SMEs, housing or rural development.

Figure 4.8. Presence of NDBs across continents and in EMDEs



Note: As per the World Bank's classification, there are 40 high-income countries, 28 upper-middle-income, 45 lower-middle-income, and 49 low-income countries; 55 countries are unclassified. Source: Finance in Common System Public Development Bank Database

NDBs have unique strengths that position them well to be substantial mobilisers of climate financing. They can leverage budgetary resources to crowd in affordable and patient capital, thus overcoming a key barrier to long-term investment. As trusted partners, they coordinate directly with government and the private sector, contribute to national planning, mitigate risks across project life cycles, and allocate capital to priority sectors. With strong local knowledge, NDBs often are focal points for originating and developing climate projects, effectively tailoring these to domestic circumstances and development needs. They can tap, but also help develop, local financial markets by mobilising pension fund capital, for example. Many have functioned as lending intermediaries of IFIs. Moreover, NDB financing is counter-cyclical, which increases predictability and avoids abrupt falls in financing in times of capital flight. NDBs can draw on these comparative strengths to expand their role beyond traditional project financiers.

NDBs now account for a significant share of global climate finance. According to the Climate Policy Initiative, NDBs have increased their climate financing, and accounted for around 20% of public climate finance flows and 7% of global flows in 2023, more than the combined share of MDBs and multilateral climate funds (Naran et al., 2025). In a recent World Bank Survey of NDBs, most respondents have incorporated green lending into their

operations, and a few have set concrete targets that are linked to national commitments to the Paris Agreement (Dalhuijsen et al., 2023). Most NDBs surveyed were still in the early stages of climate financing: the share of green assets in their portfolios remains low at around 14%, and their financing of adaptation is limited. Few NDBs track private sector climate financing. Common challenges identified in expanding climate finance include inadequate incentives for the climate transition, financial constraints of NDBs, and limited capacity in NDBs and among clients to address climate issues (Dalhuijsen et al., 2023; Marois et al., 2023).

NDBs are increasingly expected to expand their role as catalysts and mobilisers of climate finance. Volz and Lee (2024) highlight the untapped potential of NDBs in driving green finance initiatives, addressing market failures and attracting private climate financing. Initiatives are emerging to build a "global ecosystem of public-public financing" to leverage private financing (Mariotti et al., 2025). The Finance in Common Summit (FiCS) has called for greater cooperation among public development banks (PDBs), including NDBs, globally. In 2024, FiCS launched its Financial Innovation Lab, creating a new platform to support peer learning and sharing of best practice among PDBs. It also aims to promote dialogue to harmonise approaches and incubate financial innovations through technical and financial support.

To expand their roles in scaling up climate financing, NDBs will need to strengthen their capacity to support national climate strategies, lead in developing bankable investment projects and pipelines, and effectively deploy catalytic financing. This requires building their institutional expertise and greater access to multilateral and concessional financing to deploy innovative blended financial instruments that lower the cost of capital, de-risk investments and expand the range of financiers. NDBs will need vehicles to connect projects with investors, including greater engagement in country platforms. They will also need sufficient capital to leverage other sources of financing, and an enabling environment that incentivises investments in a green and resilient economy.

Key issues and constraints

To unlock their potential as significant catalysts and mobilisers of climate financing, NDBs will need to address the following constraints to their governance and institutional frameworks, financial capacity and access to international climate finance. In all these areas, NDBs will need, and can benefit, from greater support for capacity-building.

The importance of clear mandates and sound governance and institutional frameworks

While NDBs are stepping up their climate action, studies show that climate commitments remain uneven among public development banks (e.g. Marois et al., 2025). This may be in part because of the absence of standardised frameworks for monitoring climate and sustainable development commitments. Greater clarity on the integration of climate goals in NDB mandates (Griffith-Jones et al., 2020; Volz et al., 2024) and alignment with national strategies will help set targets, define strategic direction, monitor progress and manage climate risk (Netto et al., 2021).

Governments need to address persistent concerns about governance failures in NDBs (Marodon et al., 2025). Weak governance and transparency raise the risk of political interference and mismanagement of funds. These concerns could be in part a legacy of previous governance failures and large non-performing roles in some NDBs, which highlights the importance of ensuring robust governance structures, safeguards from interference, and credible systems to measure impact and results.

NDBs will need to develop technical capabilities and expertise to expand their role as mobilisers of finance. This entails increased focus on project pipeline development to leverage public and private financing. They will need to lead transactions involving capital markets, deal with alternative asset classes and, as financial institutions, integrate climate risks into their decision-making.

Adequacy of financial capacity

NDBs will need sufficient capital to develop the scale of financing to meaningfully deliver on their climate mandates. While some NDBs possess large financial capacities, many tend to have insufficient capital that limit their capacity to expand investments (Volz and Lee, 2024). Financial adequacy will depend on each NDB's climate ambition and operational goals. In addition, NDBs will need to develop their financial strength and creditworthiness to gain access to, and help develop, domestic financial markets to support climate investments, and tap international financial markets.

Access to international development financing

Stronger partnerships with MDBs and development partners can support NDBs to scale up innovative financial instruments and improve their institutional frameworks (Volz et al., 2024). MDBs and development financial institutions have been important sources of NDB financing (Mariotti et al., 2025). Access to MDB financing, concessional financing from multilateral climate funds, and guarantee and de-risking instruments are valuable for delivering innovative instruments to catalyse investments and could be scaled up. A notable example was the European Investment Bank's financial support of DBSA's initiatives to boost renewable energy production in South Africa and neighbouring countries. DBSA's Climate Facility, which the Global Climate Fund helped create, provided incentives for mitigation and adaptation. That said, research shows that some MDBs are more engaged with NDBs than others (Griffith-Jones et al., 2020; Marois et al., 2023), while NDBs broadly regard engagement with MDBs as particularly valuable in encouraging NDB governance reforms.

International support is critical in scaling up technical assistance and cooperation. The Inter-American Development Bank (IDB) Technical Cooperation and Knowledge Agenda, for example, has been impactful in increasing the institutional capacity of NDBs in the Latin American region to design and deliver green financial instruments to promote private investment.

Strategic priorities for the role of NDBs

NDBs will need to strengthen their institutional and governance frameworks, financial capacity and expertise, and partnerships with IFIs to realise their potential as catalysts and mobilisers of climate finance. Many of the key elements to mobilise private sector financing are discussed in Section 5.1, so the following focuses on actions to strengthen NDBs' institutional foundations and capacity.

Table 4.7. Strategic priorities and action agenda to enhance the role of NDBs

Set sound governance and financial capacity: governments should provide sound institutional and governance frameworks, along with sufficient financial capacity, to scale up climate investments
• Expand coverage and role of NDBs given their critical role in project origination and mobilising financing.

- **Provide NDBs with clear mandates and goals**, mainstream climate goals in corporate governance, and set sound and robust corporate governance frameworks.
- **Ensure NDBs have sufficient capital and resources** to deliver on climate financing goals and support NDBs' efforts to deepen domestic capital markets.
- **Create a favourable investment environment** that incentivises green and climate-resilient investments and supportive regulatory frameworks.
- **Ensure NDBs transparency and accountability.**

Build NDBs capacity to mobilise climate finance: NDBs should strengthen their ability to catalyse investments and mobilise climate financing, with government and international support

- **Originate, develop and distribute strong project pipelines**.
- **Use innovative instruments** to leverage access to domestic and international financial markets.

Deepen collaboration with international partners: NDBs should expand cooperation with MDBs, multilateral climate funds and other IFIs to access affordable finance and capacity-building support

- **Foster partnerships** with MDBs and other IFIs.
- **Improve access** to concessional financing, risk-sharing instruments and technical assistance.
- **Strengthen NDBs' catalytic role**, improve operational effectiveness and expand their capacity to deliver on climate mandates.

4.4. Ensuring a just transition

Making climate finance work for all

Mobilising and sustaining $1.3 trillion annually for climate finance in EMDEs (other than China) by 2035 requires not just scale, but also legitimacy and fairness in how investments are made and finance is delivered. Structural changes required to meet climate and development goals – phasing down fossil fuels, reallocating capital and restructuring regional economies – will inevitably create winners and losers. If unmanaged, these shifts risk deepening inequality, provoking unrest, and undermining the political support on which sustained climate action depends. Ensuring a just transition is therefore not an optional add-on but a foundation for effective and durable climate finance.

The just transition challenge is particularly acute in EMDEs. Labour markets are dominated by informality, meaning that conventional tools such as unemployment insurance or retraining subsidies reach only a minority of workers. Fiscal space is often constrained by debt and limited revenues, making it difficult for governments to finance safety nets or regional diversification without concessional support. Demographic pressures are also distinct: rapidly growing young populations create the urgent need for decent green jobs, in contrast to advanced economies where transitions often involve early retirement. And while coal and heavy industry dominate just transition debates in advanced economies and China, EMDEs face equally pressing transitions in agriculture, transport, small-scale manufacturing and natural resource management. These differences explain why, until recently, just transition was often dismissed as a 'Northern'

or coal-specific agenda, and why EMDEs require tailored guidance and financing models (Glynn et al., 2020).

The international agenda has advanced significantly. The International Labour Organization's (ILO) 2015 guidelines established a global benchmark for labour rights and social dialogue; MDBs issued a joint statement of principles in 2021; and in 2024 the G20 endorsed priorities for just energy transitions ranging from energy planning and social protection to gender inclusion and supply chain security (ILO, 2016; AfDB et al., 2021; G20 Brasil, 2024). The Just Transition Work Programme, launched at COP27 and operationalised at COP28, now provides a multilateral platform to exchange experience and mobilise resources. While some countries (both advanced economies and EMDEs) have highlighted unequal impacts on different groups of society or the workforce as a consequence of response measures in their Nationally Determined Contributions (NDCs), only 34% have plans to address such impacts by including the concept of just transition in their overall NDC implementation, and in such cases plans are mostly focused on workers (UNFCCC, 2024a).

Emerging just transition practices in EMDEs

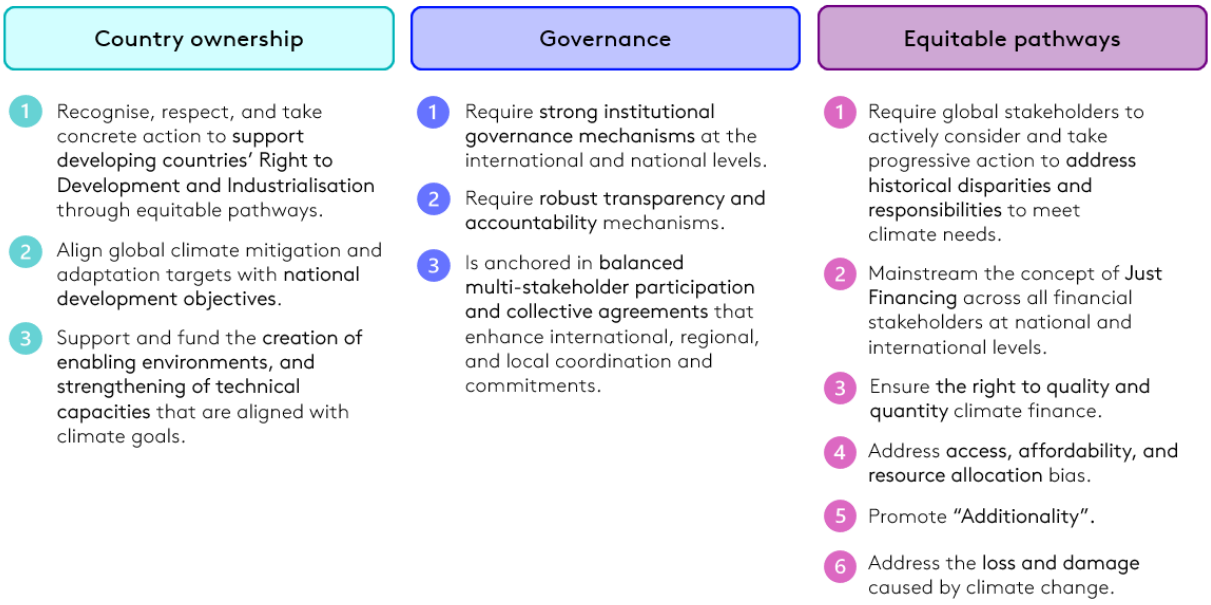
Experience from global guidance and emerging national practices is beginning to shape a clearer framework for action. Across EMDEs, several elements are important for designing just transition strategies that are credible, durable and financeable:

- **Make the just transition a cross-cutting pillar of climate and development strategy and finance.** Justice must be built into climate and development plans and finance from the start, rather than addressed only after transitions cause social or economic disruption, at which point rebuilding trust and social support is far more difficult. It must be embedded not only in NDCs, NAPs, long-term strategies and investment platforms but also across all sources of finance that make up the $1.3 trillion target. The just transition provides the social foundations on which the scale-up of climate finance depends, ensuring legitimacy and political durability. The *Sharm el-Sheikh Guidebook for Just Financing* reinforces this approach, calling for justice and equity to be integrated into the design and flow of climate finance (see Figure 4.9) (Ministry of International Cooperation of Egypt, 2022).
- **Ensure equity and inclusion are explicit.** Women, young people, informal and low-income workers, Indigenous Peoples and other marginalised groups are often the most exposed to transition risks and least able to access new opportunities. Dedicated frameworks to track gender, poverty and employment impacts can help ensure that transitions promote opportunity and justice, rather than entrench inequality.
- **Empower local and regional actors.** The social and economic impacts of transitions are felt most directly at the local level. Empowering subnational governments with resources and decision-making authority enables them to plan for regional diversification, attract investment and protect livelihoods.
- **Strengthen accountability and monitoring.** Tracking impacts on jobs, poverty and communities turns principles into real outcomes. Shared metrics – such as taxonomies for just transition investments – can help countries cost their plans, assess progress and mobilise finance more effectively.

Applying these elements in practice reveals several lessons (see Table 4.8. for an overview of examples). Integration into national development planning enhances legitimacy and donor alignment, as seen in Colombia and South Africa. Place-based strategies in Mpumalanga (South Africa), Quang Ninh (Vietnam) and Jharkhand (India) demonstrate the value of territorial approaches, though weak coordination between national and local institutions often constrains progress. Informal workers – from

Indonesian coal miners to Philippine jeepney drivers – remain under-protected, underscoring the need to extend safety nets beyond the formal and energy sectors. Inclusive dialogue, such as through South Africa's Presidential Climate Commission and Colombia's community platforms, builds social consensus and durability. Finally, international finance can catalyse ambition – as JETPs in South Africa, Indonesia, Vietnam, and Senegal illustrate – but currently remains too narrowly focused on energy and loans, with social measures underfunded. Pairing finance with social protection, as Egypt's subsidy reform experience shows, can build the trust needed to sustain transitions.

Figure 4.9. Just financing principles (from the Sharm El-Sheikh Guidebook for Just Financing)



Source: Based on Ministry of International Cooperation of Egypt (2022)

Table 4.8. Examples of just transition practices in EMDEs

National strategies	
South Africa	South Africa's **Just Transition Framework** and **Just Energy Transition Partnership (JETP)** link international finance to retraining, regional diversification in Mpumalanga, and community transition funds. The new **Just Transition Funding Platform** provides a structured channel between donors and local beneficiaries, building legitimacy by explicitly tying finance to social outcomes.
Indonesia	The **Indonesian JETP** includes plans for early coal plant retirement and targeted regional diversification in coal-producing provinces. Programmes focus on reskilling and alternative livelihoods, though data gaps on informal workers limit coverage.
Colombia	Colombia has embedded just transition into its 2022–2026 **National Development Plan**, prioritising coal regions such as Cesar and La Guajira. Pilots on community energy projects and dialogue platforms frame just

	transition as part of a broader development strategy, strengthening its legitimacy.
Sectoral and regional pilots	
India	Jharkhand and Chhattisgarh governments, with iFOREST support, have developed **district-level just transition roadmaps**. These focus on livelihoods for informal coal workers, repurposing mining land and diversifying regional economies, offering a replicable subnational model.
Vietnam	Authorities in coal regions such as Quang Ninh are planning **people-centred transition measures** alongside renewables expansion, though worker support remains limited relative to the scale of change.
Morocco	The state-owned OCP Group is investing in **green fertiliser production**, powered by renewable energy and desalination. Parallel investments in worker skills and community development show how resource-based economies can embed justice in industrial transition.
Philippines	The government's **jeepney [public utility vehicle] modernisation programme** seeks to replace old vehicles with cleaner fleets. Weak consultation with informal drivers, however, has triggered strikes and resistance, highlighting the risks of excluding affected groups.
Non-governmental regional initiatives	
Cameroon, Democratic Republic of Congo, Gabon and Republic of Congo	The **Pro-Congo Initiative**, led by UNCDF, UNEP and the Central African Forest Initiative, is investing $15 million to catalyse up to $30 million for green MSMEs in the Congo Basin. It supports deforestation-free climate-resilient enterprises, to empower small entrepreneurs and enable their inclusive participation in low-carbon value chains and the development of deforestation-free business models.
Peru, Colombia and Ecuador	The **Amazonia Impact Fund I** is a $25 million impact-linked debt fund, set up by Amazonia Impact Ventures. It finances forest-positive, bioeconomy enterprises led by Indigenous peoples, local communities and women in the Amazon Basin.
Sierra Leone and Guinea	**West Africa Blue**, a regional public-private initiative, issues high-quality blue carbon credits through large-scale mangrove restoration and protection in West Africa, ensuring that carbon revenues are shared with local communities, creating green jobs and strengthening coastal livelihoods.

5. Delivering on the $1.3 trillion in external finance

This chapter sets out how the world can mobilise $1.3 trillion per year in external finance for EMDEs (other than China) by 2035 – the scale needed to meet the $3.2 trillion in total annual investment requirements identified in this report. It outlines the complementary roles of private finance, multilateral development banks (MDBs) and development finance institutions (DFIs), concessional and innovative sources of capital, and emerging mechanisms such as carbon markets, debt swaps and philanthropy.

The chapter is organised into five main parts:

- **Section 5.1 ('Originate – structure – scale') focuses on mobilising private capital** for climate and nature in EMDEs through improved risk-sharing, guarantees and securitisation platforms.
- **Section 5.**2 examines how MDBs and DFIs can expand both concessional and non-concessional windows, with a potential tripling or quadrupling of lending by 2035.
- **Section 5.3 explores how high-integrity carbon markets can generate debt-free, results-based finance** for mitigation, adaptation and nature. It reviews domestic carbon-pricing instruments and international mechanisms under Paris Agreement Article 6 and the voluntary market, identifying reforms to integrity standards, governance and market infrastructure.
- **Section 5.4 details the expansion of concessional and low-cost finance** – including bilateral ODA, SDR rechannelling, solidarity levies and philanthropic capital – needed to meet the growing needs from adaptation, resilience, loss and damage, and nature.
- **Section 5.5 examines how to make all financial flows consistent with the Paris Agreement**, advancing implementation of Article 2.1(c) and reforming international financial regulation. It outlines the actions required to shift investment away from high-carbon, climate-vulnerable activities; integrate climate risk into prudential and credit-rating frameworks; harmonise taxonomies and disclosure standards; and empower MDBs and institutional investors to drive a climate-aligned financial system.

By 2035, total external climate finance for EMDEs other than China is projected to reach around $1.3 trillion per year, up from roughly $190 billion in 2022. External private finance is expected to increase sharply, with $90–150 billion in mobilised flows and a further $300–700 billion in direct private investment. Multilateral climate finance is also expected to contribute $50–75 billion in concessional finance from MDBs, $160–240 billion from MDBs' regular windows, and $6–10 billion from multilateral climate funds. Concessional and low-cost finance will also need to increase, including $60–100 billion from bilateral official climate finance, $30–60 billion from financial flows arising from South–South cooperation, and $30–140 billion from carbon markets, with the potential for the following complementary sources to add to this total: $20–110 billion from voluntary levies, $5–20 billion from SDRs, $10–20 billion from innovative blended finance, $5–10 billion from debt swaps, and $5–20 billion from private philanthropy. Together, these channels can close the gap and achieve the $1.3 trillion annual external finance goal for EMDEs other than China by 2035.

5.1. Originate – structure – scale: unlocking private capital for climate and nature in EMDEs[16]

Private finance, domestic and external, is expected to make the largest contribution to the financing of the $3.2 trillion investment needs underpinning the $1.3 trillion external finance goal (see Table 3.4.). This reflects the changing nature of investment with a large shift to the private sector and the potential to harness private savings. In particular, the very large pool of global institutional capital (in excess of $150 trillion) can be harnessed to meet the large financing needs of EMDEs. As the work of the COP30 Circle of Finance Ministers and IHLEG has highlighted, this will require concerted efforts to overcome domestic and international obstacles, as well as targeted action by MDBs, DFIs and donors to mobilise private finance. External private finance, which amounted to less than $40 billion in 2022, needs to increase more than 15-fold as the largest component of the $1.3 trillion target. Here, mobilised private finance will need to increase from around $25 billion in 2022 to $90–150 billion by 2035. Different parts of the system (MDBs, multilateral climate funds, donors) can play complementary roles in setting up scalable blended finance structures and in helping to overcome domestic and international obstacles. As these efforts gain traction in creating private sector confidence and reducing actual and perceived risks, there will be an increase in direct private flows.

Given the inherent uncertainties around both domestic and international efforts, total direct external private finance could span a wide range, from $300 to $700 billion. The upper end of the direct private climate finance range does not reflect a constraint in the supply of finance but rather constraints on demand, including the scope for private investment, creditworthiness, regulations affecting cross-border flows, the capacity to prepare large pipelines of bankable projects, and absorptive capacity. The lower end of the range reflects limited progress on enhancing the enabling environment for direct private climate finance.

The private sector's role in climate finance

Value proposition

The global transition to a resilient, low-carbon, nature-positive economy will require a significant increase in investment across a wide range of sectors. Given the economic activity that this investment would unlock, the transition represents an unprecedented investment opportunity for the private sector – across banks, institutional investors, corporates and financial intermediaries. Rising competitiveness is steadily shifting the balance across multiple sectors, positioning clean technologies as a more compelling investment choice and lowering their relative risk against alternative allocations of capital. This is why private finance – and the mobilisation of associated capital flows – sits at the heart of the Baku to Belém Roadmap: both as the primary opportunity to accelerate the transition and as the central challenge to be overcome.

Within the $3.2 trillion of annual investment required by 2035 to EMDEs other than China, around $1.4 trillion will need to come from private sources, of which cross-

[16] This section on private finance has benefitted enormously from the close partnership with the COP30 Circle of Finance Ministers, GFANZ and the OECD. IHLEG partnered with Fazenda Brazil, GFANZ and the Blended Finance Taskforce in organising four roundtables this year (in New York in April, Singapore in May, London in June and New York in September) to seek the views of the private sector and key institutional stakeholders on the main impediments holding back private investment and cross-border finance, and on the agenda that can unlock private finance at scale. We have worked very closely with and benefitted from inputs from GFANZ on the analytical foundations and have interacted with and benefitted from the extensive work of the OECD this past year on private finance mobilisation. We are also grateful for inputs from institutional stakeholders including the MDBs and climate funds.

border sources should contribute around $650 billion annually. Progress has been made in the last few years, with global private finance crossing the $1 trillion a year threshold in 2023 with a 30% compound annual growth rate (CAGR) from 2018 to 2023, greatly outstripping 18% growth in public finance, but only a very small portion of international private finance, around $40 billion, is destined to EMDEs (including LDCs) (Naran et al., 2025).

This is not only about financial flows: cross-border private finance brings in technical expertise, accelerating innovation and its diffusion. It helps to expand and strengthen domestic finance institutions such as local commercial banks and institutional investors, and capital markets, which are essential to meet country-specific needs and local currency requirements. Private climate finance in EMDEs comes from multiple domestic and international actors including corporations (both through domestic investment and foreign direct investment [FDI]), finance and insurance asset managers, but also, importantly, from local households and consumers. The role of households as investors in the transition is particularly important and deserves more attention and further research. In this section, though, we focus on cross-border flows (FDI) mediated by banks, asset managers, DFIs, institutional investors and corporations.

The roles played by domestic and cross-border finance are mutually reinforcing. Well-functioning markets able to support the transition to a low-carbon, nature-positive economy need both forms of finance and a coordinated approach. Although the emphasis here is on mobilising cross-border private capital, as set out in Section 4.3, developing deep, liquid domestic capital markets and expanding the role of domestic investors and corporates are the foundations to unlock all climate finance. As argued earlier in this report, robust local markets enhance fiscal resilience, crowd in international investment, and provide the long-term anchor for scaling up climate finance.

Blended finance remains a key instrument in scaling up private investment and finance. Convergence's latest report finds that blended finance deal flow was higher in 2024 than the market average for the previous five years, and deal sizes are trending upwards, with the median size increasing from $38 million (in 2020–2023) to $65 million (in 2024) – reflecting growing ambition and scale. There is also more buy-in from the private sector. Commercial capital from private sector investors outpaced DFIs and MDBs in capital deployment, with $6.9 billion in investments in 2024.

Key obstacles

Despite growing awareness and momentum, private finance can only deploy capital within fiduciary and regulatory constraints, and remains limited by structural and behavioural barriers across the investment ecosystem, which requires joint action by public, private and institutional actors to address effectively.

Within these boundaries, a range of risks and barriers have historically constrained private sector cross-border investment in EMDEs. These have been explored extensively, including through a series of meetings with private sector representatives held by the IHLEG during 2025 and by the Circle of Finance Ministers in its recent report. They include:

- **Lack of bankable/investable projects in many markets.** Limited project pipelines in many EMDEs, due to a lack of conducive policy/regulatory frameworks, limited government investment planning, lack of project preparation support, limited project developer ecosystems and broader market development, challenges of scale and information asymmetry, and limited equity finance willing and able to bear early-stage project development risk.

- **Significant, difficult-to-mitigate investment risks.** Project-level risk (including technology and offtaker/counterparty risk), macroeconomic risk (including foreign exchange volatility and inconvertibility, political risk) and policy risk (policy inconsistency, regulatory uncertainty, and weak institutional capacity) often exceed fiduciary/regulatory risk limits or drive costs of capital to unsustainable levels. The fragmentation of existing risk-sharing instruments – such as guarantees, first loss facilities and blended finance products – limit their deployment at scale.
- **Limited domestic financial market development.** Shallow and inefficient domestic financial markets in EMDEs make it challenging to transfer savings to productive investment opportunities or to investment in corporates.
- **Limited access to global pools of capital.** Global institutional investors, who manage the largest and deepest pools of global capital, invest primarily in liquid, tradeable, rated securities, but limited capital market development in EMDEs translates into a lack of structures or instruments appropriate for these investors. The absence of aggregation platforms, local-currency facilities and robust governance frameworks that meet institutional investors' fiduciary and compliance standards is also a major hurdle. These investors also often face mandate restrictions and internal risk frameworks that further constrain EMDE exposure.
- **Limited investor/financial institutional familiarity and availability of and access to data.** Limited presence on the ground in EMDEs often leads to overly conservative approaches and behavioural biases in risk assessment. In addition, limited availability and access to reliable data, especially on project performance, credit risk and physical climate exposure, continue to distort risk assessment and perpetuates the gap between realised and perceived risk.
- **Challenges with prudential regulation.** In some cases, prudential regulations for banks, insurers and pension funds may treat EMDE exposures in an overly punitive manner (i.e. regulatory treatment may not reflect the reality of historic/observed risks) and/or not accurately reflect risk mitigation provided by MDBs, thereby discouraging long-term institutional investment.

The private sector investment lifecycle: originate – structure – scale

Within this broader context, we turn to the role of private finance – working alongside public and concessional flows – across the three interdependent phases of the investment cycle: originate, structure and scale (see Figure 5.1). This framework enables a more detailed examination of how the nature of risk evolves across the full project cycle, and of the corresponding capital stack required at each stage. Mapping risk-sharing instruments against these phases and capital layers provides a clearer picture of where action is most needed to unlock investment at scale.

- *Originate* covers the origination and preparation of projects: early design, feasibility studies, permitting, front-end engineering and costing. This phase runs up to the Final Investment Decisions (FIDs), when sponsors commit to proceed. At this point, no revenue is generated and risks remain high. Catalytic and early-stage equity – whether from corporates, venture arms or philanthropic sources – is often essential to absorb development risk and bring projects to bankability.
- *Structure* is the core investment moment, from FID through to financial close and construction, when large upfront capex must be mobilised. Here, project equity provides the foundation of the capital stack, enabling the mobilisation of commercial debt. A central feature is the creation of revenue security – such as long-term offtake agreements, purchase contracts or concessions – that underpins lender confidence.

Risk-sharing instruments (guarantees, FX solutions, insurance) further expand debt capacity and lower the cost of capital.

- *Scale* marks the mature stage, when programmes of investment have entered revenue generation and early risks (construction, technology, permitting) have been resolved. With cash flows stabilised, they become commercially bankable at a larger scale, enabling refinancing, replication and securitisation.

These are not linear, stand-alone steps but mutually reinforcing functions. Their success depends on a coordinated ecosystem of corporates, financial institutions and development partners, and on a flexible, multi-layered capital stack supported by catalytic and risk-sharing instruments. Together, they enable investment programmes to move from concept to commercial maturity at the speed and scale required, driving investment, growth and jobs.

Figure 5.1. Mapping catalytic instruments to project cycle and capital stack

	Project cycle →		
Capital stack	**Originate**	**Structure**	**Scale**
Grants	• Prep facilities, TA, feasibility, capacity building	• Transaction advisory, structuring support, viability gap funding	
Early-stage equity *(VC, corporate, philanthropic)*	• First-loss equity, catalytic VC/DFI funds, corporate venture	• Concessional co-investment, mezzanine, subordinated tranches	• Co-investment platforms, blended equity funds
Project equity *(sponsor equity)*		• Sponsor equity with catalytic/MDB tranches, corporate risk-sharing	• Secondary equity sales, yieldcos, IPOs
Debt – construction finance		• Blended loans, guarantees, FX hedging, revenue/completion insurance, corporate offtake-backed debt	
Debt – refinancing/bonds			• Institutional loans, green/SLBs, local currency bonds
Securitised products			• Warehousing, OTD platforms, securitised loan portfolios, risk-sharing vehicles

Source: Authors

Originate: turning transition plans into investable pipelines

This phase covers everything up to the Final Investment Decision. This is where projects are originated and are still in the early stages of risk reduction and management with no revenues yet flowing, before moving into structuring investments and ultimately scaling up finance once projects are mature and revenues are in hand.

Goal: Shift from building isolated pipelines of projects to assembling programme-level, integrated investment platforms that bundle multiple opportunities, while maintaining the private sector's agility and responsiveness ('chasing the deal'). By aligning country ambitions and policy priorities with the capabilities of private actors, MDBs, NDBs and other partners, the aim is to originate and prepare broader, more impactful programmes of projects.

Key components of the 'Originate' phase

1. Country-led investment platforms and plans, developed in close collaboration with the private sector

Mobilising private capital begins with countries' ability to design effective investment programmes and tackle binding policy constraints that prevent private sector participation. As highlighted in Chapter 4, country investment plans and platforms are one way to do this – bringing together, under one umbrella, the priorities from NDCs, NAPs and NBSAPs while ensuring alignment with national economic development strategies. Strong country plans can be translated into comprehensive pipelines of bankable investment projects and, in turn, form the basis for corporates' and financial institutions' transition plans, building on common global approaches such as the GFANZ transition plan framework. Brazil's Climate and Ecological Transformation Investment Platform (BIP) is a flagship example of this approach: a country-led investment platform that actively engages the private sector, consolidates transition priorities and aggregates pipelines of bankable projects across sectors. Indonesia provides a second illustration: PT SMI's Indonesia One, a country-owned blended finance platform, was designed from the outset to attract private capital into sustainable infrastructure, with dedicated resources for risk mitigation and sharing and pipeline development. More recently, the establishment of Danantara as the Indonesian government's new investment management agency has further strengthened Indonesia's capacity to crowd in private investment at scale.

2. More effective project preparation ecosystems, bringing together public and private actors, focused on moving from investable projects to investable programmes

Efforts to develop investable project pipelines are fragmented, duplicative and not always locally led. Scalable platforms and expanded access to catalytic capital are needed to build stronger pipelines around broader programmes of investment. MDBs and project preparation facilities, significantly expanding resources for grants and technical assistance, should be a priority, focusing on supporting and scaling up proven platforms that build on existing experience. The Global Infrastructure Facility (GIF), which provides targeted upstream advisory and midstream project preparation and structuring support through technical assistance delivered in collaboration with the MDB system to help governments develop bankable projects, is a key institution in this space. By convening MDBs, development banks, and private investors, GIF plays a critical role in creating the connective tissue between IFIs and the private sector (GIF, 2023). Its standardised project preparation and technical assistance model has the potential to be scaled up as a platform function, supporting pipelines at an aggregate level – geographically or sector-wide – and enabling replication across markets (see Box 5.1.).

Corporates can also play a significant role as pipeline makers and are pivotal to closing the origination gap. As innovation and pipeline accelerators, they help build investable opportunities by incubating new technologies and linking projects across value chains. They can commit early capital to R&D, pilots and climate tech ventures beyond mature solutions, shouldering initial risk in unproven projects and attracting external investors. United Airlines Ventures' $200 million Sustainable Aviation Fund, for example, is helping suppliers develop new feedstock sources and novel production pathways for sustainable fuels (United Airlines, 2024). Similarly, Microsoft's $1 billion Climate Innovation Fund invests in emerging climate technology solutions with early commercial traction, ranging from Stegra, the world's first commercial-scale near-zero emissions steel plant, to Husk Power, a mini-grid developer bringing renewable energy to underserved communities in Nigeria and India (Microsoft, 2024). By absorbing early risks, these corporate-led funds signal confidence, crowding in additional private and DFI finance for scale-up.

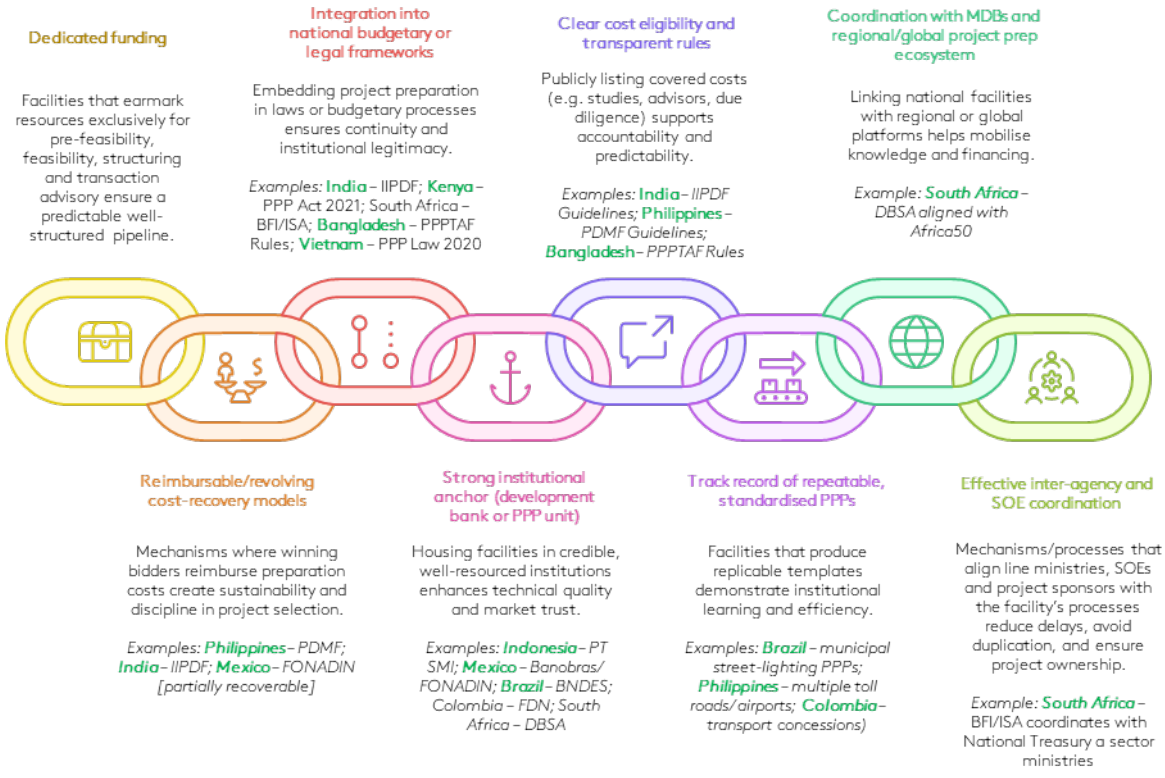
Box 5.1. The Project Preparation Facilities (PPF) Impact Programme

Fewer than 10% of government-initiated infrastructure projects in EMDEs reach financial close, reflecting a persistent 'missing middle' between project design and bankability. Preparation typically costs 5–10% of total project value, yet early-stage funding remains fragmented, unpredictable and poorly aligned with national pipelines. Despite the proliferation of global and regional facilities, coordination gaps and duplication continue to constrain the flow of investable projects.

The upcoming PPF Impact Program, co-led by the Global Infrastructure Facility (GIF) in partnership with the World Bank Group (WBG), seeks to address these systemic gaps by strengthening national Project Preparation Facilities (PPFs). National PPFs act as *anchors* that align global, regional and private resources with country priorities, funding the midstream activities – feasibility, structuring and transaction preparation – that move projects from concept to bankability.

The upcoming programme is intended to support governments to design and operationalise such facilities through peer-learning cohorts and country-owned Action Plans, drawing on successful models such as PT SMI's SDG Indonesia One, DBSA's InfraPrep, and Mexico's Fonadin. A well-capitalised national PPF – typically $50–100 million in revolving resources – can sustain $1–2 billion in annual project flow.

By embedding national capacity and linking it systematically with MDB and global platforms such as GIF, the ASEAN Public-Private Partnership Project Preparation Facility (AP3PF) and Africa50, as well as private-sector-led initiatives such as Allied Capital Partners, the PPF Impact Programme aims to convert fragmented efforts into a coherent, country-led system for accelerating the preparation of bankable infrastructure in EMDEs.



Source: The Global Infrastructure Facility (2025)

3. Encourage more catalytic equity investment, insurance and other risk mitigation tools dedicated to unlocking early-stage project preparation

Equity plays a critical role in enabling early development stages and is the first essential step for capital formation in projects, companies and funds across various phases of maturity. Well targeted catalytic equity can help close the equity funding gap which is often the cause of broken deals and failure in reaching FID. It can play a risk mitigation role by coming in early to project/funding phases, taking a 'first-loss' position, capping returns or waiting longer to exit (CPI and GFANZ, forthcoming). Both MDBs and DFIs are well placed to contribute equity investments into funds and projects at an earlier stage, especially in the context of their increased appetite to invest equity (British International Investment, 2025). The Green Climate Fund (GCF) is also showing a growing appetite to deploy equity at these stages, anchoring projects and platforms that can then mobilise private investment (GCF, 2024).

Through its InfraCo Africa and InfraCo Asia vehicles, the Private Infrastructure Development Group (PIDG) has provided early-stage equity to unlock pioneering renewable energy projects. In Malawi, InfraCo Africa's investment in the Golomoti solar PV project helped cover project development risks, enabling the country's first commercial-scale solar plant with battery storage and catalysing further private investment. Similarly, in Vietnam, InfraCo Asia supported the Thinh Nuan solar project at its earliest stages, absorbing preparation and permitting risks to create a replicable model for private-sector solar investment in the region. IFC's Frontier Opportunities Fund (FOF) is another groundbreaking initiative designed to bridge the critical funding gap for climate solutions. By providing risk-absorbing capital, the FOF enables the private sector to enter new sectors and technologies sooner and at a larger scale than would otherwise happen.

Another noteworthy example is the Alliance for Green Infrastructure in Africa Project Development Fund (AGIA-PD). AGIA was launched at COP27 by the African Development Bank, Africa50, and the African Union Commission. From inception, it has been designed as a collective platform to address one of Africa's most persistent barriers to climate-aligned investment: the insufficient number of bankable green infrastructure projects. The platform provides risk capital at the upstream stage of project preparation, where costs are high and risks are greatest, to help transform early concepts into bankable opportunities. By addressing the 'missing middle' between project ideas and investment-ready infrastructure, the fund reduces the barriers to expanding the market for privately financed infrastructure on the continent. AGIA seeks to ultimately catalyse up to $10 billion of private investment in renewable energy, sustainable transport, water and ICT. AGIA achieved a major milestone in accelerating green infrastructure across the continent when it reached its first close at $118 million earlier in 2025.

MDBs, DFIs, venture capital equity funds, family offices, High Net Worth Individuals and philanthropies can all play complementary roles by anchoring investments, funds or platforms, absorbing risk through catalytic and flexible early-stage equity and backing earlier-stage innovation to create the track record required for mobilising private capital at scale. Climate Fund Managers (CFM, 2024), through its blended vehicles Climate Investor One and Climate Investor Two, demonstrates this by providing early-stage development funding alongside construction and refinancing facilities, reducing project risk and mobilising institutional investment into sectors such as renewable energy and climate-resilient water infrastructure. Likewise, SEACEF II provides early-stage high-risk capital to accelerate the Southeast Asia low-carbon transition, backed by first-loss equity from philanthropic and development finance institutions.

Pre-development risk coverage (also known as early-stage risk coverage or project development risk insurance) is another tool to mitigate risk in the Originate stage that needs to be scaled up. It provides partial insurance at the riskiest and most uncertain stage of infrastructure development – the preparation and structuring of projects before financial close – making it more attractive for sponsors, investors and governments. Partial risk coverage for areas like permitting, feasibility and land acquisition helps support project viability at these early stages. In 2024, for example, Etana Energy in South Africa secured a $100 million guarantee facility from GuarantCo and British International Investment to support new renewable energy transactions under the country's emerging 'wheeling' market, unlocking an estimated $500 million in private investment and enabling around 500 MW of new renewable capacity (GuarantCo and British International Investment, 2024).

4. Build new markets, especially in more nascent sectors like nature-based solutions, pure adaptation projects and advanced decarbonisation technologies for heavy-emitting sectors

Country-level or regional efforts can support the development of nascent markets critical to the transition by effectively engaging the full value chain to understand how to overcome barriers to project investment. These barriers include a lack of well-understood business or revenue models, and uncertain demand due to green premiums and policy uncertainty. There are critical actions that need to be taken to ensure enabling regulatory environments for private investments in these nascent sectors, including action on land tenure, land use regulations and standards for bioeconomy products (these are well explored in the work of the Nature Investment Lab, a joint initiative by GFANZ, BNDES, iCS, Banco do Brazil and the Itausa Institute). These dynamics are already visible in several pioneering initiatives that demonstrate how convening, enabling environments and catalytic capital can translate ambition into market creation (see Box 5.2).

Box 5.2. The role of convening, enabling conditions and early stage capital in building new markets

Several initiatives already highlight critical approaches to building nascent markets. One is convening diverse stakeholders – across industry, government and finance – to accelerate pipelines of investable projects. For instance, Brazil's Nature Investment Lab demonstrates how public–private partnerships can shape new markets for nature-based solutions by aligning financial structures, business models and regulatory reforms (GFANZ, 2024a). The Industrial Transition Accelerator (ITA) is a global multi-stakeholder effort that convenes industry, finance and policymakers to catalyse commercial-scale decarbonisation in heavy industry and long-distance transport, tackling barriers to move commercial-scale projects towards final investment decision (Mission Possible Partnership, 2025).

Developing essential enabling conditions also plays a vital role in building robust and high integrity markets. For example, work by members of the Global Mangrove Alliance to establish conducive scientific and policy environments for mangrove restoration and protection is helping strengthen the foundation for new payment for ecosystem markets, such as TNC and AXA XL's Blue Carbon Resilience Credits, which offer potential for new revenue streams that can crowd in private investment for nature-based adaptation solutions (AXA XL, 2025).

Nascent solutions with limited proof points face outsized challenges in attracting early-stage private finance. Catalytic capital and blended mechanisms are essential to de-risk early stages and mobilise commercial investors. Solutions include the Acumen Resilient

Agriculture Fund (ARAF) which uses concessional capital – including equity and grants from the Green Climate Fund – to support early-stage businesses to build scalable models for climate-smart agriculture in Africa (GCF, n.d.).

As market shapers and demand anchors, corporates also play a critical role in scaling up nascent markets through their investments and demand signalling. As many low-carbon products initially cost more than incumbents and face uncertain demand, investors are often hesitant to back these projects and to produce new supply. By pre-emptively locking in volume, price and tenor (and sometimes offering price floors or contract-for-difference [CfD] arrangements), corporates can mitigate project risk through predictable cash flows, helping mobilise capital from banks and investors. Such agreements are often treated by lenders as bankable revenue streams, effectively unlocking additional debt capacity and reducing financing costs.

Corporate demand-anchoring strategies have grown rapidly in recent years. In 2024 alone, companies worldwide signed contracts for around 62 GW of new renewable energy capacity – a 36% increase over the previous year and the highest volume on record (PR Newswire, 2025). The approach is also spreading to 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. Microsoft, for example, has secured long-term offtake agreements for sustainable aviation fuel to anchor supply and mitigate investment risk (Microsoft, 2024). Mercedes-Benz has committed to anchor offtake for low-carbon steel via its tie-ups with H2 Green Steel (Mercedes-Benz, 2023). In EMDEs, Sasol and Air Liquide signed around 600 MW of wind and solar PPAs in South Africa in 2023 to decarbonise Sasol's Secunda operations, one of the largest single-point sources of CO_2 emissions globally, aggregating demand to create bankable projects in a transitioning renewable market (Sasol/Air Liquide, 2023). In India, Amazon has become one of the country's largest corporate buyers of renewable energy, with a portfolio of 53 solar and wind projects in the country. For example, in early 2025 it signed three PPAs in India for projects with a combined capacity of 379 MW, giving developers such as CleanMax and BluPine Energy the revenue certainty needed to finance large projects (Amazon, 2023).

What is required to scale up:

1. **Anchor country platforms as entry points** for co-developing investment pipelines. National transition plans should evolve into integrated investment roadmaps – covering mitigation, adaptation, nature and biodiversity – linked to bankable projects and aligned with national development strategies.
2. **Strengthen project preparation ecosystems** with expanded concessional resources and pooled donor support. MDBs, DFIs and NDBs should scale up facilities that provide upstream advisory, technical assistance and structuring support, complemented by digital and AI-enabled tools to accelerate project identification, design and risk assessment.
3. **Deploy catalytic equity and pre-development risk coverage** to shorten time to bankability. Equity investment in early-stage projects and developers, combined with risk-sharing instruments for permitting, feasibility and land acquisition, can mitigate risk in the riskiest phases and build the track record needed to crowd in private capital. MDBs, DFIs and vertical funds are well placed to increase their equity investment at this stage.
4. **Harness corporates as market shapers,** both as pipeline builders – through early investment in R&D, pilots and climate tech – and as demand anchors via aggregated

offtake commitments, advance market commitments and CfD-style contracts. These strategies provide predictable cash flows that unlock additional debt and equity.

5. **Develop nascent markets into investable asset classes** by clarifying regulatory frameworks (e.g. land tenure, land use, product standards, energy permitting, auction processes), developing new financial structures and demonstrating scalable business models in areas such as nature-based solutions, adaptation and advanced decarbonisation technologies.

Structure: 'fit-for-purpose' risk-sharing and management platforms to unlock the core phase of investment

Goal: Convert pipelines into financeable deals by supporting investors with standardised instruments and platforms that allocate risk effectively between public and private actors. The focus is on reducing the cost of capital (both equity and debt) in a crucial and often CAPEX-intense phase of investment through fit-for-purpose guarantees, FX solutions, insurance and blended structures. At this stage, tickets are larger and appetite for risk lower than at the originate phase.

Key component of the 'Structure' phase: lowering the cost of capital through scalable risk mitigation and structuring tools

While recent years have seen a proliferation of risk-sharing mechanisms and blended finance innovations, these remain fragmented, small in scale, and often difficult or costly for private investors to access. The result is a patchwork of instruments that has not meaningfully reduced the structural cost of capital gap between EMDEs and advanced economies. Addressing this requires a shift away from bespoke, deal-by-deal solutions towards fund-level, aggregated approaches that can reduce, share and manage risks at scale and lower transaction costs for private finance. Standardising proven deal structures can deliver financing that is better quality and in higher quantity, while creating assets that meet the fiduciary and regulatory obligations of the investors that hold vast pools of capital (Convergence, 2025).

Some efforts exist in aggregating solutions at fund level, across project equity and debt. SCALED (Scaling Capital for Sustainable Development), which builds on the Hamburg Sustainability Platform network, seeks to institutionalise the structuring, standardisation and deal facilitation of blended finance vehicles – effectively acting as a specialist blended finance advisor that can help reducing transaction costs and time, match providers of concessional capital with fund managers and investable pipelines, and thus prove the feasibility of scaling up the deployment of private capital via blended finance funds (SCALED, 2025). GAIA, a $1.48 billion blended finance platform, combines junior and senior tranches with reserve buffers, guarantees and FX hedging (GAIA, 2024; OECD, 2025c). The SDG Loan Fund mobilises institutional investors through a tranched structure, pooling subordinated and senior capital. On the equity side, Climate Investor One's Construction Equity Fund – distinct from its Development Fund in the Originate phase – pools equity to cover up to 75% of project capex, lowering risk and enabling debt (CFM, 2024). At the same time, MIGA's new Guarantee Facility and Guarantee Platform expands programmatic first-loss and portfolio guarantees, while the African Trade Insurance Agency provides pooled political and credit risk cover across regional projects (MIGA, 2024; ATI, 2024). The IMF has stressed that such pooled guarantees and securitisation mechanisms are among the most scalable ways to expand credit-enhanced climate lending in EMDEs (Lindner et al., 2025).

Achieving scale in risk mitigation requires clear institutional complementarity. Ongoing OECD analytical work highlights that MDBs are best placed to shape enabling environments, support project preparation, and deploy tools to reduce, share and manage

risk, while the Green Climate Fund and vertical funds provide catalytic early-stage equity. Donors offer grants that unlock deals for MDB and DFI participation, while philanthropies and family offices fill high-risk or early-stage gaps such as adaptation and nature-based solutions. NDBs build domestic capital markets to leverage local finance. Together, these actors must move beyond pilots towards standardised platforms, each focusing on its comparative strengths.

Risk mitigation and management are particularly important for adaptation and resilience. The Global Adaptation & Resilience Investment Working Group (GARI), initiated by private investors and development partners, has advanced practical frameworks for identifying and pricing climate-resilience benefits within private investment decisions. Its work underscores how better risk analytics and disclosure can convert resilience from a perceived externality into an investable asset class – a pre-condition for scaling up private capital in adaptation (GARI, 2021).

Corporates are also emerging as meaningful risk-structuring actors, investing through pooled vehicles and blended funds. Unilever's €1 billion Climate and Nature Fund co-finances projects with partners to crowd in additional capital (Unilever, 2024). Apple's China Clean Energy Fund, a $300 million platform with 10 suppliers, financed around 1 GW of renewables by aggregating demand and spreading risk (Reuters, 2025).

Using public money responsibly also means applying concessional and public resources with precision – targeting them where they can unlock rather than replace private finance. In the case of risk-mitigation instruments, this requires disciplined design and transparent pricing so that guarantees, insurance and blended structures crowd in capital, correct market failures and share risk efficiently, rather than subsidising returns that markets could bear (Mazzucato, 2025).

We turn now to specific risk mitigation instruments that can together address domestic risks related to a specific country (through political risk guarantees, insurance) and cross-border risks which affect returns to investors (local currency guarantees, FX hedging). These are gaining traction but remain fragmented and underutilised in EMDEs.

a. Risk mitigation through guarantees

Guarantees, including MDB/DFI-backed credit and political risk guarantees typically reinsured by the private sector, are among the most effective but underused tools for mobilising private capital into EMDEs. According to analysis by the Blended Finance Taskforce (2023), guarantees can mobilise at least five times as much as an MDB loan but represent less than 5% of MDB portfolios – and yet they account for 50% of private sector finance mobilised by these institutions (Cull et al., 2024). There is strong momentum to increase the use of guarantees in MDBs, including in the context of the G20 Roadmap for MDB Reform, but more work needs to be done on scale, standardisation and better access for private actors to these mechanisms. Box 5.3 describes emerging guarantee facilities. Recent work by the Green Guarantee Group (2025) sets out practical pathways to scale up such instruments – including standardised frameworks, expanded DFI and MDB guarantee capacity, and pilot country platforms in Africa and Asia – to mobilise private capital for climate investment in EMDEs (Gonzalez Esquinca et al., 2025).

Box 5.3. Guarantee facilities mobilising private capital in EMDEs

Alongside MDB efforts, new guarantee facilities are emerging that broaden the reach of these instruments and respond to market-specific barriers.

In **Nigeria**, InfraCredit provides local currency guarantees for infrastructure bonds, allowing domestic pension funds to participate in long-term investments that would otherwise be considered too risky. By enhancing creditworthiness and extending maturities, it has unlocked new flows of domestic capital into sectors such as renewable energy and transport (IISD, 2020).

The **Green Guarantee Company** provides credit guarantees for green bonds and loans across EMDEs, helping issuers secure higher credit ratings and attract global institutional investors that would otherwise be constrained by rating thresholds (GCF, 2022).

In **East Africa**, the Dhamana Guarantee Company backstops local currency debt for small- and medium-sized infrastructure projects, enabling local banks to provide longer-tenor financing that aligns with infrastructure needs (PIDG, 2025).

In **Pakistan**, Infrazamin operates as a for-profit credit enhancement facility, offering partial credit guarantees for infrastructure debt. Its model has catalysed domestic institutional investment into renewable energy and healthcare, demonstrating how credit enhancement can deepen local markets and build confidence among domestic financiers (PIDG, 2023).

These platforms illustrate how guarantees can be tailored to address specific financing gaps. By enhancing local currency markets, supporting smaller projects or elevating credit ratings to meet institutional investor requirements, they create a more investable environment for both domestic and international capital. Portfolio-level approaches and contingent backstop facilities further increase efficiency, diversifying risks and lowering borrowing costs.

b. Insurance as infrastructure

Insurance remains severely underdeveloped in most EMDEs, with a penetration averaging around 3% of GDP compared with around 10% in high-income countries, with many EMDEs falling below 1%. Annual per capita spending is just $175, around 30 times less than in wealthy economies (Bridgetown Initiative and IDF, 2025). As a result, in 2024, only 10% of natural catastrophe losses in EMDEs were insured, compared with 50% in advanced economies.

Insurance matters because it provides tools for investors to spread risk across the project cycle while connecting domestic markets with deeper capital pools. This, crucially, reduces investment risk, leading to a lower cost of capital. It also helps stabilise public finances and incentivises investment into risk-sensitive sectors such as infrastructure, water and agriculture.

Building the enabling conditions to unlock these benefits requires collaboration between private insurers and regulators, governments and MDBs. The IDF Infrastructure Resilience Development Fund is one initiative aiming to channel insurance industry capital into smaller infrastructure projects in EMDEs (IDF/BlackRock, 2024). At sovereign level, pooled parametric facilities are also demonstrating scale: the African Risk Capacity (ARC) has provided over $1 billion in coverage and recently launched a flood product (ARC, 2023), while the Caribbean Catastrophe Risk Insurance Facility (CCRIF) has disbursed more than $260 million since 2007 (CCRIF, n.d.). Together, these initiatives illustrate how

pooled risk instruments can aggregate exposures, diversify shocks and crowd in private insurance capital at greater scale.

Innovative resilience-linked tools such as parametric insurance and catastrophe bonds deliver faster, more predictable post-disaster funding compared with traditional development finance and disaster relief. They help governments share disaster costs with insurers and capital markets, providing rapid liquidity and reducing emergency borrowing. Trust in these products, however, requires transparent triggers and clear payout rules. Globally, the parametric insurance market remains modest, at around $16 billion in 2024, but it is projected to grow significantly over the next decade (GlobeNewswire, 2025). The development of this market, including through private sector products, is an essential enabler of broader private sector investment. To quote Barbados's Prime Minister Mia Mottley, "When a sector or a country or a region becomes uninsurable, they effectively become un-investable" (Caribbean Today, 2025).

c. Mitigating risk associated with foreign exchange (FX)

Domestic capital market development and local currency financing is the best way to finance domestic projects – as it circumvents the FX risk. MDBs' and NDBs' efforts to increase local currency finance volumes, on-lend through intermediary FIs and re-deploy deposits from local commercial financial institutions are essential and covered extensively in other chapters of this report. When it comes to cross-border finance, FX hedging solutions are critical. Currency exposure – the amount of external (hard-currency) debt and payment obligations not hedged – already totals around $2 trillion and could triple by 2030 without intervention (TCX, 2025). Yet hedging markets are thin, making costs extreme or unjustified for many EMDE currencies. Even concessional MDB loans, once hedged, can breach IMF Article 4 safety thresholds. This constrains hard-currency borrowers, deters private capital and makes long-term project finance difficult to structure (Persaud, 2024).

To mobilise private finance at scale, it is essential to scale up FX hedging solutions and reduce their cost – for both debt and equity – via pooled hedging facilities, large-scale FX risk-sharing instruments and liquidity backstops. EcoInvest Brasil (launched 2024 with support from IDB and the UK's Foreign and Commonwealth Development Office [FCDO]) combines four complementary credit lines, including an FX liquidity backstop for projects with foreign debt but local-currency revenues, ensuring solvency during sharp depreciations. It has recently expanded to cover equity investors as well, offering protection to those providing long-term risk capital in local markets. Meanwhile, TCX (the Currency Exchange Fund), continues to expand: it provides long-term swaps and forwards in over 70 EMDE currencies, absorbing risks commercial banks typically avoid. In 2024, it hedged around $2.8 billion of development lending, and transferred most of this exposure to private investors, demonstrating how portfolio diversification can deepen hedging markets (TCX, 2025).

What is required to scale up:

1. Channel blended finance through larger, standardised fit-for-purpose platforms. Move beyond bespoke deals towards pooled platforms with clear terms. Using layered risk-sharing – where public or concessional funds absorb more risk – makes it easier for private investors to participate at scale, especially in markets with high capital costs.
2. Make guarantees a mainstream, standardised tool for mobilisation. Guarantees remain underused despite their high mobilisation potential. The G20 MDB Roadmap has created momentum, but the real opportunity lies in expanding standardised, aggregated guarantee platforms that private investors can access easily and at scale.

3. **Mitigate foreign exchange risk to unlock cross-border investment.** Currency risk is one of the biggest barriers for international flows into EMDEs. Scaling up pooled hedging facilities, blended FX risk-sharing instruments and liquidity backstops – building on examples such as EcoInvest Brasil – can reduce costs and make long-term finance viable.
4. **Expand insurance as part of financial infrastructure.** Insurance markets in EMDEs are shallow, yet essential for attracting private capital. Scaling up parametric insurance, catastrophe bonds and risk pools – integrated into national strategies and supported by MDBs, donors and insurers – can stabilise finances, improve credit ratings and channel investment into resilience.
5. **Leverage the role of corporates in scaling up investments.** Corporates play a pivotal role in the investment phase by anchoring revenue security through long-term offtake contracts, co-investing equity and joining blended structures – providing the bankable commitments that allow lenders to underwrite projects at scale.

Box 5.4. Mobilising corporate balance sheets: integrating corporates into capital structuring

Beyond financial institutions, domestic corporates, international corporates and households are further essential sources of private capital for the transition. While a portion of this finance from these sources will require intermediated finance – through banks and other institutions – up to half may be self-financed.

The role of non-financial corporates is often overlooked in discussions of climate finance, although they are already substantial providers of private capital towards the low-carbon transition and will remain critical to delivering on the private investment need in EMDEs. In 2023 non-financial corporates invested approximately $335 billion into climate solutions – about 27% of private climate finance and one-fifth of global flows – with volumes up more than 50% year-on-year (Naran et al., 2025). Their role is even larger in EMDEs, where corporate finance represents over one-third of private climate flows.

Corporates contribute to scaling up climate capital in multiple ways. Beyond investing directly in assets, corporates can accelerate innovation – via incubation and taking early risk in emerging solutions. They also shape markets through long-term procurement, share risk by anchoring blended vehicles, and build enabling environments by advocating for policy and new standards.

As direct capital investors, corporates accelerate climate infrastructure, deploy new technologies and reshape supply chains. Their balance sheets can be mobilised at greater scale when deal structures reflect how firms actually manage risk. Key approaches to help scale corporate climate finance include:

- Prioritise standardised long-term offtake – fixed-spread PPAs, CfD-style floors, and multi-buyer offtake clubs for new commodities (like sustainable aviation fuel, green hydrogen and low-carbon steel) as the anchor revenue covenant to catalyse investment.
- Pair these with fit-for-purpose guarantee stacks (completion, revenue and policy/termination wraps) so lenders can underwrite to contracted cash flows, lowering the weighted average cost of capital and lifting debt capacity; where corporates are both anchor buyers and minority equity, use ring-fenced special purpose vehicles with step-in rights and pre-agreed cure mechanisms to reduce counterparty risk and diligence friction.

- Add currency and price stabilisers (local-currency liquidity backstops, basic FX collars, inflation indexation) to keep corporate procurement budgets predictable.
- Package these elements into standardised, shelf-ready term sheets (not bespoke one-offs), accompanied by data templates covering production, availability, and environmental and social KPIs. This enables faster diligence, fewer exceptions at credit committees, and clearer alignment between procurement, treasury and project finance.

Beyond direct investment, corporates also act as ecosystem builders, using collective influence to shift policy and market norms. Initiatives such as the First Movers Coalition, in which more than 90 global companies have committed to offtake emerging low-carbon technologies, show how corporates can create demand certainty, strengthen the business case for investment, and crowd in both public and private finance.

Source: Systemiq (forthcoming)

Scale: Mobilising institutional capital and deepening markets

Goal: Overcoming barriers to crowding in institutional investors at scale through securitisation, removing regulatory impediments and improving access to data.

Key components

1. **MDBs/DFIs to expand originate-to-distribute and originate-to-share programmes and scale up syndication**

MDBs and DFIs can recycle scarce capital more efficiently by expanding four complementary models: (a) project-level syndication, (b) originate-to-distribute on balance-sheet loans, (c) risk-transfer platforms, and (d) originate-to-distribute on third-party loans. Each channels institutional investors into EMDE markets in distinct ways.

a. Project-level syndication (A/B loans at signing)

Under the traditional approach, MDBs/DFIs syndicate project loans at the point of deal signing, through A/B or parallel loan structures. This mobilises additional lenders while maintaining MDB oversight of environmental, social and governance (ESG) standards. The model is already being institutionalised: the ILX Fund invests directly in syndicated MDB/DFI loans on commercial terms, and IFC's Managed Co-Lending Portfolio Program (MCPP) allows institutional investors and insurers to co-invest *pari passu* across a diversified pipeline of IFC-originated loans. Together, these mechanisms demonstrate how syndication can move from deal-by-deal transactions to portfolio-scale mobilisation (IFC, 2025).

b. Originate-to-distribute (OTD) on balance-sheet loans

A more structural approach involves MDBs/DFIs originating loans on their balance sheets and subsequently pooling and distributing them via securitisation. By issuing capital-market instruments such as Collateralised Loan Obligations (CLOs), they can recycle capital and expand new lending capacity. IFC's Emerging Market Securitization Program transaction in 2025 – amounting to $510 million, specifically designed for the US CLOs market backed by IFC-originated loans – marks a pivotal step in MDBs' use of OTD. The World Bank has also indicated it will review options to create a similar mechanism for its sovereign portfolio (World Bank Group, 2025d). These are powerful examples, but the opportunity is to create a cross-MDB development finance asset class at scale for institutional investors. This can be extended to the wider community of development banks as the IDFC and FiCS are seeking to do.

c. Risk transfer/synthetic distribution platforms

Rather than selling loans, MDBs can retain them but transfer a large share of the credit risk to private investors through Significant Risk Transfer (SRT) securitisations. This synthetic approach provides regulatory capital relief without removing the loans from the balance sheet. The African Development Bank's Room2Run programme exemplifies this model: by transferring mezzanine risk of a portfolio of loans to private investors, AfDB made capital available to originate additional climate lending. In 2024 it committed to scaling up Room2Run into a multi-originator platform, pointing to the potential of risk-transfer models to complement traditional OTD (AfDB, 2018; 2024). EBRD has also announced that it plans to launch its first Significant Risk Transfer through a synthetic securitisation by the end of 2025, with more transactions planned for 2026 (EBRD, 2024).

d. OTD on third-party loans (portfolio acquisition/REinvest+ Style)

A further model leverages the origination capacity of commercial banks. MDBs can purchase performing green loans from local lenders, pool and standardise them, and distribute exposures through capital-market products such as collateralised loan obligations (CLOs), credit-linked notes (CLNs), loan participation notes (LPNs) or sustainability-linked bonds (SLBs). The Inter-American Development Bank's proposed REinvest+ platform would acquire green loans from banks in emerging markets, structure them into institutional-grade securities, and thereby create space on banks' balance sheets for further lending (IDB, 2024). The private sector is also increasingly building instruments that can leverage institutional investors. A notable example is Singapore's Bayfront Infrastructure Management, backed by the AIIB and Singapore authorities under the Infrastructure Private Capital Mobilization Platform. It purchases infrastructure loans from banks and repackages them into infrastructure asset-backed securities (IABS), demonstrating how securitisation can recycle capital and attract institutional investors at scale (AIIB, 2019). A complementary example is the GAIA Climate Loan Fund, launched in 2025 by Climate Fund Managers with support from development partners and institutional investors. Structured as a blended-finance debt platform, GAIA reached a $600 million first close to finance adaptation and mitigation projects across emerging markets. The fund exemplifies how well-designed vehicles can channel private debt capital into climate-aligned infrastructure, combining concessional and commercial finance to deliver both impact and scale (Climate Fund Managers, 2025).

Another example is Africa50's pioneering asset recycling programme to unlock capital for new infrastructure across Africa. Asset recycling allows governments to concession operational, revenue-generating assets to private investors for a fixed period, receiving upfront proceeds that can be reinvested in other priority projects. For governments, the model creates fiscal space without increasing debt; for investors, it provides access to brownfield assets with stable cash flows and long-term sustainability value. What distinguishes Africa50's approach is the integration of environmental, social and governance (ESG) principles and climate adaptation into the Asset Recycling framework. The Senegambia Bridge Asset Recycling project demonstrates this model in action. Under the agreement, Africa50 assumed operations through the newly established Transgambia Bridge Company Limited, while the government unlocked resources to fund other development priorities.

Together, these four models can multiply MDB capital efficiency and attract long-term investors such as pension funds and insurers. Each requires strong origination pipelines, rigorous ESG alignment, and safeguards to ensure recycled capital supports country-led transition plans rather than gravitating only to low-risk markets. Crucially, these mechanisms are integral to the ambitions MDBs have set out in the G20 Roadmap

reform agenda – and essential to channelling institutional private finance at scale to EMDEs (G20, 2022).

2. **The G7 and the G20 should identify and address areas where prudential regulatory treatment have unintended consequences and may not appropriately reflect underlying risk**

The Eminent Persons Group on Prudential Regulation launched by the Pact for Prosperity, People and the Planet (4P) to tackle barriers to investment in EMDEs can provide timely and evidence-based input to these discussions.

Scaling up climate investment requires prudential regulation to reflect real rather than perceived risk. Current Basel rules create disincentives for EMDE lending by assigning high risk weights to sectors like renewables, despite evidence that infrastructure project loans have lower default rates than corporates (IIF, 2025).

Interviews conducted by GFANZ with more than 25 financial institutions show that two issues stand out: first, MDB/DFI guarantees and co-financing are not fully recognised in risk-weighted asset calculations; second, project finance loans in EMDEs are penalised with higher capital charges than observed performance justifies. Other factors such as the one-year probability of default horizon or liquidity ratios were not seen as major barriers (GFANZ, 2024b).

Outside banking, the EU's Solvency II regime requires insurers to hold high capital against illiquid or lower-rated assets, limiting EMDE exposure to under 5% of portfolios (EIOPA, 2024). Yet targeted reforms could shift incentives: recognising the risk mitigation role of MDB partial guarantees in the assessments of external credit assessment institutions (ECAIs) would reduce capital charges, while debates on a 'green supporting factor' in EU capital rules show how prudential treatment can be aligned with climate goals (European Commission, 2024).

The Circle of Finance Ministers has stressed the need to focus on this shortlist of priority barriers, avoiding fragmented reports that dilute the message to regulators. Similarly, the new 4P Eminent Persons Group (EPG) is examining whether prudential rules unintentionally constrain flows to EMDEs, feeding into the G20 Presidency, the Baku to Belém Roadmap and the Circle itself (4P, 2025).

3. **Advance transparent and accessible climate and financial data collection and sharing, particularly related to risk**

One of the biggest barriers to scaling up climate finance in EMDEs is the lack of transparent, accessible data on real investment risks. The Global Emerging Markets Risk Database (GEMs), which already covers 20,000 contracts across MDBs and DFIs, could evolve into an open-source risk intelligence hub. Expanding it to include anonymised private sector data would significantly improve coverage and comparability, helping to close the gap between perceived and realised risk, and reducing the cost of capital. Work such as the Hamburg Data Alliance shows the feasibility of aggregating and standardising private sector datasets for broader market use, and could serve as a model for GEMs to build on (Environmental Finance, 2025). As the Circle of Finance Ministers stresses, this expansion should also tackle proprietary data asymmetries that disadvantage EMDEs and be paired with technical support to strengthen local disclosure capacity (Circle of Finance Ministers, 2025).

Equally important are climate-related data and disclosure frameworks. Here, it is critical to distinguish between (i) climate data disclosure, (ii) transition plan disclosure, and (iii) transition plan requirements. The current debate sometimes conflates these, but

they play different roles: disclosures provide information on emissions and climate risks; transition plan disclosure sets out a company's intended path; while transition plan requirements determine the regulatory expectations around the credibility of these strategies. Transition plans should be positioned primarily as forward-looking strategy documents, guiding how firms align their business models with climate and nature goals, rather than being treated only as compliance checklists (GFANZ, 2024b).

What is required to scale up:

1. **Expand OTD platforms in the direction of creating a cross-MDB development finance asset class.** MDBs and DFIs can make space on balance sheets by scaling up OTD models, securitisation and syndication platforms. Similar structures can securitise EMDE commercial banks' green loan portfolios, creating investable products for institutional investors while recycling capacity into new climate lending.
2. **Align prudential regulation with real risk.** Basel rules and related standards often overstate risks within EMDE infrastructure, raising capital costs. Recognising MDB guarantees and blended finance in capital adequacy rules, and recalibrating risk-weighting where data show lower default rates, would reduce financing costs and unlock new flows.
3. **Build trusted market data and interoperable taxonomies.** Transparent data on realised project risk and harmonised taxonomies are essential to narrow the gap between perceived and realised risk. Open-access risk platforms and interoperable taxonomies (e.g. ASEAN, EU) can reduce uncertainty, improve comparability and accelerate cross-border capital flows.
4. **Strengthen market infrastructure for adaptation and resilience.** Scaling up capital into nascent areas like nature and resilience requires robust market infrastructure, clear metrics and investable instruments such as carbon markets and resilience-linked bonds. Institutional-grade vehicles for these sectors, combined with systematic FX risk mitigation, can broaden the investable universe for global investors.

Strategic priorities for the private sector

The agenda set out in this section to mobilise private finance at scale in support of the Baku to Belém Roadmap can only be achieved through a much stronger partnership between the private sector, countries, DFIs and donors. We now have a much better understanding of the domestic and international obstacles that need to be addressed. There is greater political will to tackle these impediments and a wide range of experimentation underway on potential solutions. The Baku to Belém Roadmap provides an important opportunity to recognise the central role and opportunity for the private sector, and to set an implementation path bringing together these three key sets of stakeholders.

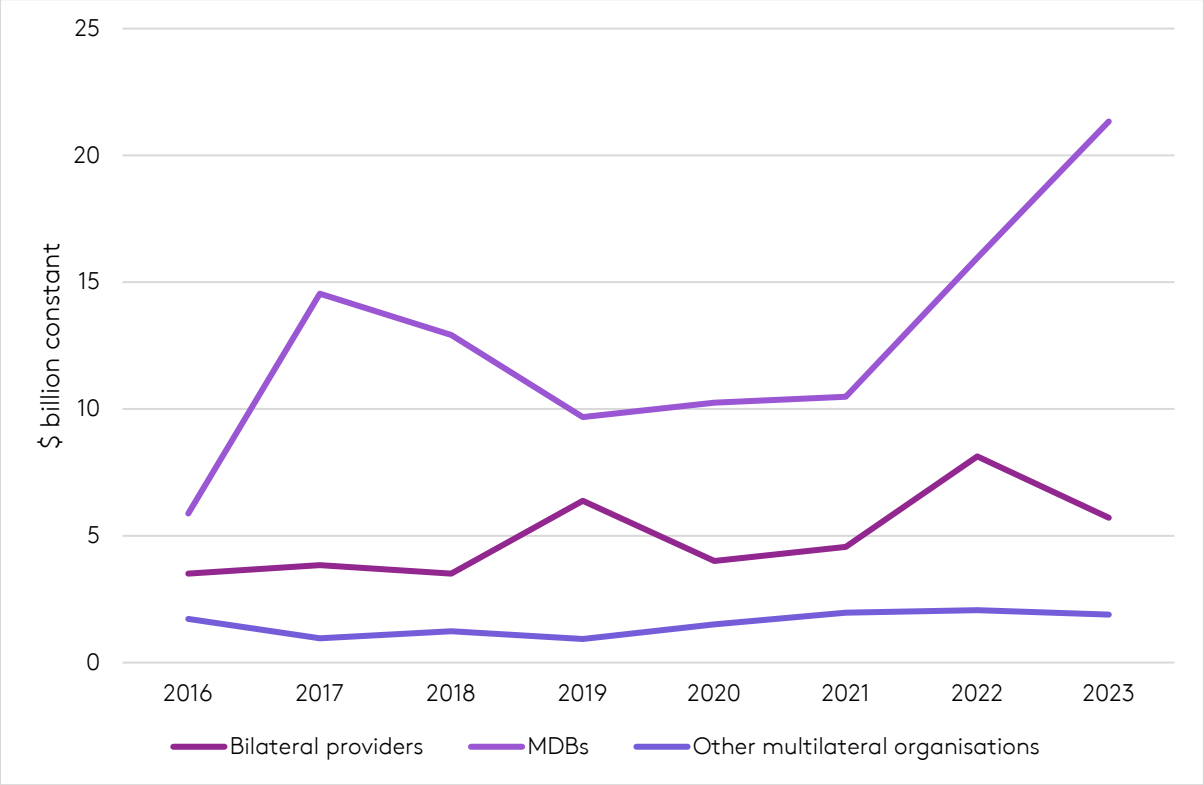
The analysis highlights three sets of actions where the private sector, both financial institutions and corporates, can play an important role (see Table 5.1). The opportunity now is for the private sector to move from pilots and fragmented instruments to systemic deployment, by originating programme-wide pipelines, structuring risks to bring down the cost of capital, and unlocking institutional flows through market infrastructure. By mobilising capital across the full stack – from early-stage equity to securitised products – the private sector can deliver investment at the speed and scale required by the Baku to Belém Roadmap.

What the analysis makes clear, though, is that scaling up private finance will only work if countries take the lead in creating the conditions for investment – credible

policies, pipelines and platforms that give confidence to private actors – and if MDBs, DFIs and donors develop the tools and platforms that genuinely respond to market need. Mobilising cross-border private finance at the scale required will depend on a system-wide approach that harnesses the comparative strengths of public, private and institutional actors. It calls for a new partnership between private investors and public institutions – including IFIs, NDBs and donors – to co-create solutions for effective reduction, sharing and management of risk, and for securitisation and market creation.

Ongoing OECD analysis shows that there has been differential progress on private finance mobilisation, and that a more systematic effort is called for. Over the past year, the OECD has carried out extensive analytical work and consultations on private finance mobilisation, in which IHLEG has been closely involved. Private finance mobilisation for climate action has been stagnant for much of the last decade (see Figure 5.2). There has been an important uptick in mobilisation by MDBs since 2022 but no similar uptick with bilateral and other multilateral providers of development finance.

Figure 5.2. Total mobilised private finance for climate by provider category, 2016-2023 (US$ billion)



Source: Authors based on OECD (2025d)

The significant step-up in mobilisation by MDBs reflects more concerted efforts, individually and collectively. Several institutions are already advancing innovation and mainstreaming possible solutions. The World Bank Group's Private Sector Investment Lab has begun piloting new approaches – such as an IFC asset-backed securities programme and a streamlined guarantee platform – to demonstrate how development institutions can mobilise private capital more efficiently through capital-market instruments and risk-sharing reforms (World Bank Group, 2025e). As this section has highlighted, there are many other important innovations and initiatives that are now underway. To succeed, this ecosystem must be systematically connected to private players across the investment

cycle – banks, asset managers, institutional investors and corporates – and equipped with instruments designed to mobilise their capital efficiently and at scale.

The OECD analysis identifies three levers for development banks, DFIs and their shareholders to build on ongoing efforts to promote systematic change:

- **First, clarify mandates and strengthen strategic direction.** This should recognise direct and indirect mobilisation as well as catalysation as a core function alongside sovereign lending and direct finance.
- **Second, enable financial models and risk frameworks that support catalytic mobilisation.** This includes efficient risk management and balance sheet use, and scaling up risk-transfer tools, and originate-to-share and recycling models. While a growing number of instruments are being used, the risk appetite and policy constraints of development banks and DFIs create a bias towards low-risk approaches.
- **Third, build mobilisation skills and align incentives.** This requires investing in staff with expertise in structuring complex blended and risk-sharing transactions, aligning internal incentives and accountability, and embedding mobilisation pathways into country and sector strategies.

All these changes will benefit from and require structured multi-dimensional corporate scorecards with clear KPIs and metrics for both mobilisation and catalysation. These changes also need to be pursued through system-wide collaboration across MDBs and ultimately across all public development banks and DFIs.

Beyond project-level barriers, systemic factors continue to raise the cost of capital for EMDEs and depress cross-border flows across the investment cycle. Three systemic factors are particularly challenging:

- **First, the absence of credible global financial safety nets** leaves EMDEs persistently exposed to shocks and higher risk premiums, creating structural vulnerability that drives up financing costs and return expectations for private investors.
- **Second, credit rating methodologies are also misaligned with EMDE realities:** they tend to overweight macro-fiscal risks and under-recognise actual repayment performance or policy progress, while limited data availability further biases assessments. They also struggle to effectively capture MDB risk reduction, sharing instruments and securitisations (making asset-by-asset rating necessary, which is slow and cumbersome) or blended finance funds. These shortcomings inflate perceived risk and amplify the cost of capital, constraining the mobilisation of private finance at scale.
- **Third, prudential rules and disclosure regimes often discourage climate investment, especially in EMDEs,** an issue that is covered in more detail in Section 5.5 below.

Table 5.1. Strategic priorities and action agenda for mobilising private sector finance at scale

Originate: Build and accelerate pipelines: to meet the Roadmap's investment objectives, private sector actors must shorten time-to-bankability and expand investable opportunities

- **Co-develop country platforms and transition plans,** ensuring the private sector is involved from the outset, especially in shaping investment plans in EMDEs.
- **Provide early equity and risk capital** to absorb development-stage risks, leveraging and co-creating catalytic co-finance where needed. DFIs' equity and catalytic equity investment is a particularly powerful instrument at this stage.
- **'Jump-start' demand for green products in emerging markets** by using long-term offtake contracts, advance market commitments, and CfD-style floors for green commodities, co-developing catalytic instruments with governments, IFIs and DFIs where appropriate.
- **Invest in project preparation ecosystems,** combining stronger presence on the ground with digital, standardised project registries and pooled preparation facilities and skill pools.
- **Leverage corporates to act as pipeline accelerators** by incubating innovation, piloting business models and backing the transformation of supply chains, especially nature-based sectors.

Structure: Mobilise capital through fit-for-purpose risk-sharing instruments: the Roadmap's delivery hinges on lowering the cost of capital in EMDEs through smarter, scalable structuring

- **Collaborate on designing standardised, fit-for-purpose platforms to reduce, share and manage risk** (guarantees, FX hedging, insurance), building on recent initiatives such as the World Bank Private Investment Finance Lab, to deliver shelf-ready templates to reduce transaction costs and accelerate deal flow.
- **Support the scaling-up of FX hedging solutions for both debt and equity** by co-developing and participating in delivering risk-sharing models with IFIs/DFIs, including though pooling demand to reduce exposure and lower costs.
- **Leverage corporate balance sheets** to facilitate financing, for example by using procurement strategically by combining offtake commitments with equity stakes and risk-sharing rights.
- **Use catalytic and concessional tools responsibly**, recognising their value but avoiding dependency or distortions that undermine trust and market solutions.

Scale: Develop an end-to-end model that builds on the previous phases to unlock institutional finance at scale

- **Develop a new 'originate-to-distribute' asset class** designed to attract institutional capital at scale, ideally bundling multi-MDB or multi-NDB assets to achieve scale.
- **Co-create and participate in scaled-up syndication instruments** that can transfer risk effectively from MDBs/DFIs to institutional investors, moving from deal-by-deal syndication to broader pools of syndicated loans.

- **Tackle impediments in the international architecture,** such as reinforcing safety nets in EMDEs, reviewing the role of rating agencies (both for countries and MDB intervention assessments) and revisiting prudential rules that are biased against investments in EMDEs.
- **Build a publicly accessible data repository**, building on the work of the GEMs dataset and the Hamburg Data Alliance, that integrates private sector data aimed to close the gap between perceived and actual risk, lowering the cost of capital.

5.2. An MDB and DFI system that works for climate action and sustainable development

MDB finance (concessional and non-concessional) and the VCEFs play a central role by helping countries to unlock investments for transformative change, providing low-cost and long-term finance, and catalysing private finance at scale. In the new environment of constrained bilateral financing, their role is all the more important. Multilateral climate funds are projected to more than double their financing by 2035 in line with the commitment made in the NCQG (see Table 3.4). MDB concessional finance is projected to more than double by 2035 (to $50–75 billion per year) based on the commitment of donors and the ability of IDA to generate internal resources. MDB non-concessional finance has the greatest potential for a substantial increase. In line with the findings and recommendation of the G20 Independent Expert Group, financing from the market-based windows for climate action could triple or quadruple by 2035 (to $160–240 billion per year). To achieve this expansion, MDBs would need additional resources from a further push on the implementation of the Capital Adequacy Framework, from hybrid capital and guarantees, and from new infusion of capital.

Multilateral development banks (MDBs)

Context

MDBs have a central role in each of the three key areas for delivery of the climate agenda: investment, policy foundations and finance. They provide credibility and technical support for building investment pipelines by translating strategic plans into bankable projects. They are leading interlocutors in policy advice. And they are the main provider of long-term, affordable capital to finance investments directly, as well as providing comfort to private investors in mobilised capital, especially given a context of constrained aid budgets. The *G20 Roadmap Towards Better, Bigger and More Effective MDBs* was endorsed by G20 leaders during the Brazilian Presidency in 2024 and the relevant agenda for MDBs in advancing climate action has been set out in the Circle of Finance Ministers report to COP30 on the Baku to Bélem Roadmap to $1.3 trillion. This section is consistent with and further details that analysis and recommendations.

MDBs need to act as agents of system transformation in each of investment, policy foundations and finance. Transformational scaling effects change over the long term commensurate with the size of the challenge, involving new business models, strengthened capacity and alignment with market forces (Linn, 2025):

- **On investment,** this means that MDBs should be more active in investment frameworks, spanning national dialogues, plans and country platforms. They need to become more strenuous advocates for a big investment push aligned to the five 'super-leverage' system changes identified in the COP30 Action Agenda: energy transition, industrial innovation, sustainable food systems, cities and social development. They need to be accountable for outcomes in these areas, both at the

national level and in aggregating national outcomes to ensure that regional and global ambitions are also met.

- **On policy reform,** MDBs have a comparative advantage on advising on sector policy reforms to make investments bankable and effective, and on the links between such policies and the deeper structural reforms on DRM, macroeconomic sustainability and debt sustainability that are needed to catalyse private finance. While MDBs are pursuing these reforms independently, they have not yet integrated them into coherent, integrated long-term development strategies.
- **On financing,** MDBs are major providers on their own account of low-cost, long maturity finance needed for infrastructure investments, as well as core mobilisers of private capital in a way that expands volumes and brings down interest costs by mitigating risks. EMDEs currently rely on external finance for roughly half of climate investments. Even with rapid DRM, they will continue to rely on external finance. Without the lower rates and longer maturities associated with MDB financing, the debt service associated with climate investments is not sustainable. The MDBs need to become change agents for the whole international finance ecosystem.

MDBs have not yet embraced such a role. They have taken considerable steps to implement several of the actions recommended in this and other reports, but the scale, impact and urgency of change fall short of what is needed. They remain hesitant to engage in ecosystem change, focusing on important yet fragmented individual transactions. They have taken some steps forward but without enacting the system change needed to achieve climate and nature investments at scale.

Major shareholders are encouraging the shift towards system transformation rather than transactional scaling – more resources, more projects, more partners. A 'G20 Roadmap Towards Better, Bigger and More Effective MDBs' was officially launched at the Rio Summit in November 2024. Leaders endorsed a vision of MDBs that would (i) develop a new locally-owned and managed ecosystem for climate and development finance, in partnership with other domestic and international financial institutions ('better MDBs'); (ii) provide significant financial support for such an ecosystem at scale, to address global challenges with cross-border externalities, including own-account financing and mobilisation of private capital ('bigger MDBs'); and (iii) help countries make progress at a pace consistent with national commitments to global outcomes by overcoming with urgency the bottlenecks in implementation ('more effective MDBs').

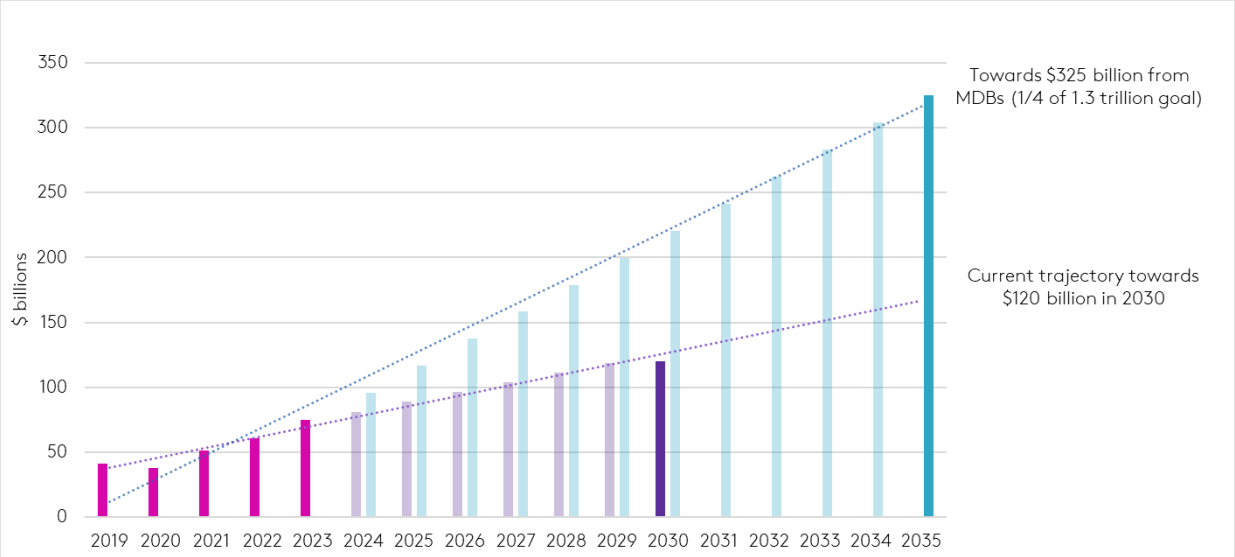
In the climate space, MDBs already play a leading role in EMDEs. In 2022, direct financing by MDBs accounted for half the total ($66.1 billion of $131.1 total climate finance).[17] MDBs were also responsible for over half the total mobilised private finance ($12.7 billion of $21.9 billion). They are starting to support country platforms, sectoral reforms, public investment management, DRM and debt management. They advise governments on the integration of climate and nature-related investments with broader development objectives.

MDBs have pledged to commit $120 billion in climate finance for low- and middle-income countries by 2030 along with an additional $65 billion in mobilised private finance. They are well placed to meet these targets: provisional figures show direct lending of $85 billion in 2024, and an additional $33 billion in mobilised private finance (AfDB et al., 2025). Most MDBs have set targets for climate finance to reach or exceed 50% of total commitments, with the Asian Development Bank setting a target of 75% by

[17] Note that these figures include all MDB financing, not just the portion attributed to advanced economies that is used to calculate the commitments made under the Paris Agreement.

2030. The largest MDB, the World Bank Group, had a long-term strategic target of 35% in its Climate Change Action Plan for 2021 –25, but increased that to 45% for 2024–25.

Figure 5.3. MDBs' climate finance commitments in low- and middle-income economies, 2019–23 ($ billion) and projections towards 2030 and 2035 goals



Source: Task Force on Climate, Development, and the IMF (2025)

As set out in the Circle of Finance Ministers report to the COP30 Presidency, "delivering on the Baku to Belém Roadmap to $1.3 trillion will depend on scaling up MDB resources" (p. 24). One such scenario is depicted in Figure 5.3, under which MDBs and Vertical Climate and Environmental Funds (VCEFs) would deliver $300 billion by 2035, or around one-quarter of the $1.3 trillion financing target. This would require a 15% per year annual increase.

The remainder of this section discusses priorities for MDB reforms by 2035, following the G20 framework of 'better, bigger and more effective'.

'Better' MDBs

By being 'better', MDBs can change systems by proactively strengthening the governance of infrastructure and partnering with the private sector in different ways.

Strengthening the governance of infrastructure starts with the planning process – establishing consistent cost–benefit analysis with appropriate shadow prices for local and cross-border externalities; helping to establish sector strategies with 'bankable' projects; coordinating the timeframes of complementary public and private investments; and supporting key sectoral policy reforms, such as feed-in tariffs.

Country platforms are the natural entry point for MDBs. Where these do not yet exist, other mechanisms are needed to link investments with national budget discussions and financing allocations. NDCs and NAPs, while improved in quality, are not sufficiently detailed to identify bankable projects. Consequently, they are not systematically considered in the development of medium-term public expenditure frameworks and do not enter systematically into Ministry of Finance processes for budgeting new investments or the maintenance of existing assets. MDBs can provide diagnostic reports, such as the World Bank's Country Climate and Development Reports, that should feed

transformational investment programmes into discussions of the macroeconomic frame within which budgets are set.

Implementation, consisting of procurement, financing, project and portfolio management and asset management, is another area of rich MDB experience that clients value but also slows down the speed of execution. System transformation is often best implemented through multiple small projects that are phased in over time. One innovation that MDBs have made to support such programmes is the World Bank's multiphase programmatic approach, used to great effect in responding to the COVID-19 crisis. The approach encourages learning and adaptation over time and secures financing in a flexible way before detailed project implementation plans are ready. It has recently been used in Sri Lanka's climate resilience programme and Ethiopia's renewable energy guarantee programme.

Working in partnership is another priority for improving MDBs. MDBs can partner with the private sector in different ways to transform the investment financing ecosystem. In doing this, they can improve impact by formally partnering with each other, national development banks and VCEFs.

Scaling up financing ecosystems means co-creating investment opportunities jointly with the private sector, as discussed above. The goal is to change the private finance ecosystem from a syndicated lending model to an originate-to-distribute model and ultimately a 'Reinvest+' model of converting local bank loans into investment-grade securities for institutional investors. Managing this transformation starts with strong sectoral policies and macroeconomic foundations, including DRM, debt management, public investment management and good governance. It requires a major revamp of the project preparation and appraisal system, including more streamlined access to project preparation facilities. It requires new approaches for MDBs to consider early-stage capital instruments – catalytic equity and mezzanine capital – in a broader process of end-to-end risk management. Securitisation and asset recycling can then be introduced to make space available on MDB balance sheets. Ultimately, private lenders will also need to have confidence that a financial safety net will permit them to exit expeditiously at a time of crisis or adverse shock. Failing that, the cost of capital will raise to potentially unaffordable levels.

MDBs cannot change the financing ecosystem on their own. They must work together with each other and with NDBs and other local financial institutions. MDBs have made good progress on standardising processes between themselves and measuring mobilised private finance in a consistent way, but more can be done to use market forces to align finance with climate goals. Implementing the World Bank's Cascade principles to avoid crowding out private capital remains a challenge (World Bank, 2017). Some evidence points to the private sector charging higher interest rates when MDBs, with their preferred creditor status, have higher lending shares (Diwan and Harnoys-Vannier, 2025).

MDBs should also make partnering with NDBs a priority in their country engagements. MDBs have had long experience with NDBs on a bilateral, transactional basis. They can build on this by creating more strategic partnerships encompassing project identification and appraisal, technical assistance, local currency financing, and use of guarantees. MDBs can also help accredit NDBs to enable access to international climate funds (Mariotti et al., 2025). In countries where NDBs act as a local anchor for country platforms, an MDB-NDB partnership can effectively bring domestic and external public and private actors to the table.

'Bigger' MDBs

MDBs are especially well-suited to augment climate finance, as called for in the IMF/World Bank '3-pillar' approach. They provide the most suitable and affordable long-term, predictable financing for infrastructure projects and programmes in a disciplined way. Building on partnerships with other official lenders and their role in private capital mobilisation (PCM), MDBs can play a lead role in assuring financing support for an agreed long-term country programme.

The formal commitments that MDBs have made to raise annual lending for climate action in low- and middle-income countries to $120 billion by 2030, along with an additional $65 billion in mobilised private finance (World Bank Group, 2024d), represent annual growth rates of 5% and 10% respectively over 2023 base year estimates. If these growth rates are projected forward, it would imply MDB commitments of $153 billion and mobilisation volumes of $105 billion in 2035. The financing scenario envisaged in this report calls for MDB commitments of $210–315 billion and total mobilised private finance of $90–150 billion, much of which is linked to MDB actions.

Meeting the challenge of continued growth in MDB lending means shifting gears beyond the initial recommendations for balance sheet optimisation contained in the Capital Adequacy Framework (CAF) report (Expert Panel on Multilateral Development Banks' Capital Adequacy Frameworks, 2022). Much of the recent expansion in MDB lending has been based on relatively simple actions: bilateral shareholder guarantees, reduction in the minimum equity/loan ratios, and other balance sheet optimisation measures. Innovations such as the establishment of a hybrid capital instrument have also yielded some headroom. Initial subscriptions of $750 million into the African Development Bank (AfDB) and $1.1 billion into the International Bank for Reconstruction and Development (IBRD) hybrid capital instruments can each be leveraged multiple times over a decade. Taken together, MDB management believes that reforms to capital adequacy frameworks already undertaken by individual institutions could yield an incremental $650 billion in lending over a decade (World Bank Group, 2025f).

These actions by MDBs for balance sheet optimisation and hybrid capital expansion will result in only one-third of the needed increase by 2035. On an annualised basis, the current plans for MDB expansion imply an *annual* increment of some $65 billion, some of which could be destined for high-income country clients of the European Investment Bank (EIB). If half of incremental MDB lending in 2035 goes towards climate and nature investments, MDB regular lending for climate would rise from $60 billion to $92 billion per year by 2035. This falls well short of the $230 billion annual lending commitment that is envisaged in the financing pathway in this report.

Other options need to be explored. Hybrid capital instruments have been introduced but first-movers face liquidity constraints until the market is developed. Nevertheless, hybrid capital remains a promising vehicle for expanding capital without altering shareholder voting rights. The AfDB issued a second hybrid capital transaction in September 2025 amounting to $500 million. The order book was oversubscribed by eight times, permitting the coupon to be bid down from an initial 6.375% to 5.875%. While such transactions demonstrate potential, hybrid capital in any MDB cannot safely be expanded beyond a small share of total equity (perhaps 20%) and the leveraged lending it supports is also lower than common equity.

There is also potential room to further adjust equity/loan ratios, while preserving MDB 'AAA' ratings. S&P Global Ratings has adjusted its criteria for rating multilateral lending institutions to recalibrate preferred creditor risk weights, revise single-borrower concentration exposure to account for credit quality, adjust treatment of hybrid capital

and account for historical loan recovery performance (S&P Global Ratings, 2025a). By some accounts the changes could make $600–800 billion available in additional headroom (S&P Global Ratings, 2025b). However, this could only occur if other credit rating agencies also adjust their methodologies.

MDBs will ultimately need fresh injections of shareholder capital if they are to expand their lending to meet client needs for investment finance. A minimum of $60 billion in new capital is needed across the MDB system even if hybrid instruments and the recommendations of the Capital Adequacy Framework report are ambitiously implemented (Gallagher et al., 2024). This is not a major sum of money when phased over time as is common with MDB capital increases. The main obstacle to such an expansion is not a budgetary concern but a lack of cohesion among shareholders on a long-term vision for the system. Some shareholders believe MDBs should grow on the basis of their own retained earnings while others are advocating for accelerated growth. Although shareholders have agreed to selected capital adequacy reviews, including one for the IBRD in 2025, the approaches and methodologies used in individual institutions varies. Basing such reviews on a common vision for the aggregate size of the MDB system, followed by a disaggregation to account for regional and thematic specialisation, would improve understanding about each institution's role. Such measures can then be complemented by commitments on the share of lending to be devoted over the long term to specific global challenges such as climate, nature and others where MDBs are called upon to make joint commitments.

It is not enough to increase commitments; an emerging issue is the slow growth of disbursements. The IBRD reported that as of 31 March 2025, one-quarter of its portfolio of loans remained undisbursed ($87 billion out of $362 billion approved) (IBRD, 2025). IDA had undisbursed loan and grant balances of $76 billion and $26 billion, respectively (IDA, 2025). This data suggests that it is not enough for MDBs to target and report on their loan commitments. From the point of view of accelerating climate investments, it is equally important to ensure that funds are disbursed.

The concessional funding arms of MDBs rely on contributions from shareholders. These are subject to the same pressures as bilateral concessional finance. However, when funds are pooled through MDB channels, and complemented with analysis, technical assistance and other partnerships, they can be more effective than concessional funds deployed through bilateral channels.

'More effective' MDBs

MDBs are innovating in how to work better with each other. MDB Heads now regularly publish joint statements to outline common goals and commitments, such as a target for the volume of own-account and mobilised climate finance by 2030 and a joint statement on Nature, People and Planet. They have developed a joint methodology and provide regular reports on these targets. In several instances, they have joined forces in different initiatives to address shared outcomes; for example, the World Bank and AfDB jointly launched the M300 initiative to provide 300 million Africans access to electricity by 2030.

Nevertheless, there is a long list of detailed issues on which MDBs can work better together (Prizzon et al., 2024). A multi-year effort towards mutual recognition of standards and process harmonisation has had some initial success that can be deepened. As one example, the World Bank and Inter-American Development Bank signed an agreement to rely on the procurement processes of the lead institution in co-financed projects. As another, some MDBs have agreed to mutually enforce debarment decisions. MDBs should work towards making such agreements multilateral.

MDBs work together in a formal way by developing shared collaborative platforms in specific areas. A co-financing platform has been launched and is being tested. There is a proposal to develop a multilateral debt swap facility. These deserve support. Other platforms could also be developed. For example, the Capital Adequacy Framework (CAF) recommendation to extend Multilateral Investment Guarantee Agency (MIGA) guarantees in a platform that all MDBs could use should be advanced as rapidly as possible.

MDBs should align incentives to encourage local implementation to address critical global challenges. They have a dual responsibility to meet client demands and support planetary health. New frameworks, such as the World Bank's Framework for Financial Incentives, provide structures to reduce interest costs and lengthen maturities for activities that address global challenges with cross-border externalities. Similarly, the Livable Planet Fund, managed by the World Bank, expressly targets concessional grants to middle-income countries undertaking such projects.

In climate and nature, where MDBs collectively are prime drivers of change, there is more scope for strategies to be identified and outcomes to be measured on a system-wide basis. This has become harder over time as MDBs have become smaller actors for individual clients, but a focus on outcomes must go hand-in-hand with a focus on expanding MDB lending volumes. An example of such a focus is the aforementioned World Bank–AfDB M300 initiative to provide access to electricity to 300 million Africans by 2030. Based on such goals, MDBs should position themselves to deliver a report outlining the impact of their contributions at the next IPCC Global Stocktake in 2028.

The pivotal role of MDBs should be underpinned by institutional incentives. Already, consideration of the appropriate role of the MDB system in global forums, including the UNFCCC, G20, Fourth International Conference on Financing for Development (FFD4) and Paris Pact for People and Planet, has influenced MDB reforms and behaviour. Yet change has not been institutionalised within individual MDBs and there remains a legacy of competition among MDBs as staff drive to achieve individual institutional goals and targets. Establishing a set of system-wide key performance indicators (KPIs) to accompany the KPIs of individual MDBs would help rectify this imbalance. These should extend across the full range of reforms to drive 'better, bigger and more effective' MDBs.

An action agenda

MDBs should embrace a role as drivers of system transformation for climate action. They are the main actors in providing assured financing for climate investments in countries willing to undertake the necessary reforms and develop priority country platforms and investment programmes. Each MDB will develop its own priority recommendations for reform. Issues for focus are described in Table 5.2.

Enhancing the contribution from FiCS and IDFC[18]

Delivering on the $1.3 trillion climate finance target will require mobilising the full ecosystem of PDBs under coherent global frameworks. Anchored in their domestic contexts, they bridge governments and markets, align finance with country-owned strategies, and originate pipelines of bankable projects. The Seville Commitment[19] consolidated PDBs as a core pillar of the international financial architecture, with the Finance in Common System (FiCS) serving as the global platform convening the 530-plus

[18] This section was prepared in consultation with and input from the Secretariat of IDFC and FiCS.

[19] The Seville Commitment *[Compromiso de Sevilla]* consolidates the role of PDBs within the international financial architecture: Paragraph 30 acknowledges the role of NDBs in aligning finance with country-owned strategies and development priorities. Paragraph 37(i) explicitly references FiCS as the global platform fostering collaboration among multilateral, regional and national development banks.

PDBs worldwide. Within this system, the IDFC, with its 27 members representing more than $4 trillion in assets and $200 billion of annual climate commitments, is the largest provider of public development and climate finance and a key driver of systemic alignment.

PDBs are uniquely positioned to bridge global resources and local priorities, but too often operate in silos alongside MDBs and VCEFs. Given scarce concessional finance, maximising impact requires a coherent system where institutions pool strengths, lower costs and originate high-quality projects tailored to national contexts. Country platforms provide a practical vehicle for this interoperability, aligning diverse sources of finance with national strategies and fostering shared accountability. In addition, FiCS can play a key role in systemic risk management and private capital mobilisation, and help in creating and ensuring that fiscal space translates into bankable projects aligned with national priorities. FiCS has been focused on how to work better as a system, including through providing better metrics of impact-based accountability. FiCS has also been actively supporting the expansion of innovation and knowledge platforms.

FiCS and IDFC are pursuing several initiatives that can make an important contribution to the goal and action agenda of the Baku to Bélem Roadmap:

- **Capital de-risking and market access.** Lowering the cost of capital is a precondition for scaling up investment. Standardised, scalable blended-finance structures and enhanced market access can de-risk projects, lower transaction costs, improve project bankability, and crowd in private investors at scale. IDFC, FiCS and MIGA are advancing this through the Global Guarantee Platform – an AAA/AA+ facility that will double the number of PDBs accessing capital markets and catalyse private investment, with pilot transactions expected from 2026.
- **Scaling up country platforms as operational hubs.** Fragmentation across concessional, multilateral and private finance often prevents EMDEs from building coherent investment programmes. Country platforms address this by providing a nationally led framework that aggregates pipelines, aligns them with national strategies, and coordinates diverse sources of finance around a shared agenda. This makes country platforms not simply coordination mechanisms but delivery platforms that can channel fiscal space and global instruments into priority pipelines. FiCS and IDFC are advancing this approach through the Global Financing Playbook – developed jointly with UNDP and AIIB, with support from the International Fund for Agricultural Development (IFAD), Development Bank of Latin America (CAF), the UN Capital Development Fund (UNCDF), the FONPLATA development bank and CDP. The Playbook provides governments with a practical framework to operationalise country-led priorities. It offers standardised methodologies and tools to overcome investment barriers, align concessional and private finance, and integrate global instruments (such as guarantees and FX facilities) into national investment strategies. By serving as a 'how-to' guide for building and implementing country platforms, the Playbook helps countries translate political commitments into bankable investment pipelines.
- **Managing currency risks.** Currency volatility deters both borrowers and investors, especially in climate-vulnerable countries. Expanding local-currency lending and embedding FX risk solutions can unlock longer-tenor loans, strengthen resilience and mobilise private capital currently held back by exchange-rate concerns. This is being addressed by the Currency Risk Management and Resilience Initiative, co-led by TCX and FiCS and endorsed by the EU, UK and the Netherlands, expected to deliver up to $2 billion in local-currency lending (including $500 million for PDBs) across 30 countries by COP30.

- **Fast-tracking technical assistance (TA) and project preparation.** Without robust pipelines, finance cannot flow. Accelerating project preparation and technical assistance is essential to shorten time-to-finance and increase the leverage of concessional resources. FiCS and IDFC are tackling this through a dedicated TA workstream and catalogue, to map existing provision, reduce fragmentation and create new opportunities for matchmaking between PDBs/NDBs and TA providers – ensuring that more projects, especially in adaptation, reach bankability faster.
- **Innovation and knowledge platforms for scaling.** Tools such as the FiCS Financial Innovation Lab demonstrate how PDBs can lead in developing, testing and systematising solutions. The Innovation Lab, convened by CPI with FiCS/IDFC, incubates new financial instruments such as blended guarantees, insurance and voluntary carbon market platforms.

Beyond scaling up volumes, the challenge is to ensure system alignment and impact. The Transformational Finance for Climate Group is part of the Making Finance Work for Climate Initiative launched in 2024 at COP29 by IDFC, FiCS, UNEP FI, PRI and GCF (IDFC et al., 2024). It brings together the collective voice of PDBs, institutional investors, commercial banks and climate funds, representing thousands of financial institutions across developed and developing markets, in a whole-of-financial sector approach. The Group outlines foundations and a shared theory of change for a more strategic and impactful use of finance, addressing systemic barriers and leveraging catalytic opportunities. It seeks to make a breakthrough in shifting from volume-based metrics to impact-based accountability – ensuring that every dollar mobilised supports transformative and Paris-aligned outcomes. In this spirit, this coalition actively supports the elaboration of tracking methodologies for transformational finance, the deployment of enabling environments for transition finance, and the harmonisation of methodologies across institutions to strengthen comparability and collective impact, thereby contributing directly to the Baku to Belém Roadmap and the Sharm el-Sheikh Dialogue.

Together, these approaches show that mobilising $1.3 trillion will depend not only on more finance, but also on PDBs working as a system: using fiscal space effectively, deploying risk management tools and driving innovation to ensure finance reaches nationally defined priorities.

Strategic priorities for MDB and DFI reform

Table 5.2. Strategic priorities and action agenda for MDB and DFI reform

Better MDBs
• **MDBs should play a proactive and strategic role in helping countries accelerate investments and mobilise the necessary financing from private and public sources.** They should support countries in strengthening country-led investment frameworks including in designing and operationalising country platforms. They should strengthen their role in project preparation and implementation, partnering with the Global Infrastructure Facility, public development banks and private led initiatives.
• **MDBs should be central players in the long-term public infrastructure investments needed** to accelerate the energy transition and to build adaptation and resilience. They should significantly increase their technical support and financing for key system transformations to support development and climate resilience.
• **MDBs should develop a strong partnership with the private sector** to identify and foster investment opportunities and catalyse and mobilise commercial financing at scale (see

Section 5.1). They should be key agents in supporting the development of markets and asset classes that can unlock private finance at scale.

Bigger MDBs

- **MDBs should become the heart of the $1.3 trillion programme, by providing affordable long-term finance for public investments in climate action.** Regular MDB lending should more than triple to a range of $160–240 billion per year by 2035. There is significant firepower in the remaining agenda of the Capital Adequacy Framework report recommendations, as exemplified in the recent assessment by S&P. Hybrid capital and portfolio guarantees are evolving instruments with considerable opportunities for expansion. Nevertheless, given the scale of finance that is needed, at least $60 billion in new capital is likely to be required in the MDB system, especially if maturities for climate investment are extended, as they should be, to 30 to 50 years. Each MDB should develop regular capital need reviews to identify and deploy the necessary incremental shareholder resources.
- **MDBs should provide the scale of support needed by low-income and climate-vulnerable countries.** The concessional windows of MDBs should more than double by 2035, to reach a range of $50–75 billion per year. This can be achieved if donors channel a greater share of aid through concessional multilateral funds, including IDA. However, additional lending from regular MDB windows could be used to support revenue-generating public investments in all IDA-eligible countries, given the scale of investment financing needs.
- **MDBs should make a big push on mobilisation and catalysation of private commercial financing.** Initially, such a push would rely on MDB risk capital, but the impact can be reduced through cost-recovery, and use of portfolio guarantees from other official institutions. Over time, this agenda can be scaled up by securitisation, a shift to originate-to-distribute models and ultimately a Reinvest+ model.

More effective MDBs

- **MDBs should continue to strengthen system-wide coordination, transparency and collaboration to improve collective performance and development impact,** as set out in the G20 Roadmap and the COP30 Circle of Finance Ministers' Report. MDBs should extend mutual recognition agreements and develop platforms to serve all MDBs for debt swaps, guarantees and co-financing opportunities. They should jointly innovate with measures to incentivise local investments to address global challenges with cross-border externalities. They should develop metrics for collective MDB contributions to climate and nature and report to the next IPCC Global Stocktake in 2028.
- **MDBs should establish system-wide KPIs that can inform corporate scorecards.** Joint metrics that are integrated into individual MDB incentive and accountability frameworks would avoid excessive inter-MDB competition and waste.

Enhance the role of IDFC and FiCS

- **Strengthen the recognition and role of national and sub-national development banks.** Harness the collective voice and commitment of PDBs, climate funds and private financial institutions to develop a shared theory of change in climate finance, addressing systemic barriers and leveraging catalytic opportunities, and shifting from volume-based metrics to impact-based accountability.
- **FiCS and IDFC should support the scale-up of country platforms as operational hubs** through the approach set out in the Global Financing Playbook.

- **Scale up private capital mobilisation through expanded use of guarantees and blended instruments** using the Global Guarantee Platform with MIGA; standardise impact measurement to strengthen investor confidence; help foster private sector engagement in nationally led country platforms; help improve the management of currency risks, including through the Currency Risk Management and Resilience Initiative co-led by TCX and FiCS.
- **Improve the functioning of MDBs, DFIs, PDBs and climate funds as a system,** to accelerate pipeline development, facilitate faster co-financing, enable larger pooled transactions, and strengthen private sector partnership. Harmonised due diligence, procurement, M&E and co-financing procedures will be central to this effort.

Vertical Climate and Environmental Funds (VCEFs)

Current role and strategic outlook

The Vertical Climate and Environmental Funds play a catalytic role in the climate finance architecture. They provide concessional resources for climate and environmental action in EMDEs and LDCs, mobilise additional public and private finance, build institutional capacity, and support transformative change aligned with the Paris Agreement.

Although established at different times with distinct mandates, the funds are complementary. The Adaptation Fund (AF) focuses exclusively on adaptation, while the Global Environment Facility (GEF) addresses multiple environmental challenges across five conventions. The Green Climate Fund (GCF) serves both the UNFCCC and the Paris Agreement, and the Climate Investment Funds (CIF) support adaptation and mitigation outside the UN convention system. Together, they channel around $4–5 billion annually, with the GCF accounting for over half, the GEF a quarter, and the CIF close to a fifth of this sum. Their concessionality and risk tolerance allow them to target areas with limited revenue flows – such as adaptation, just transition and biodiversity – while also enabling policy formulation, project preparation and private sector engagement.

Despite their modest size, the VCEFs are among the few sources of international finance that systematically reach the most vulnerable. Around one-fifth of their resources are allocated to LDCs, with high grant shares (97–100% for the AF and GEF). Yet stakeholder consultations highlight persistent challenges associated with the funds: slow procedures, uneven access between lower- and middle-income countries, difficulties for small local actors, and high upfront information requirements.

The VCEFs' catalytic role can be maximised by strengthening three interlinked dimensions: strategic focus, efficiency and effectiveness, and scale. They should balance support across mitigation, adaptation and nature, tailored to country priorities, while expanding access for LDCs and SIDs through streamlined processes and stronger direct access entities. Sustained capacity-building will embed national and regional institutions into the climate finance ecosystem.

By 2035, timely accreditation, project approval and disbursement, alignment through country platforms and harmonised procedures across funds should make the VCEFs more efficient and country-driven. Flexibility and a focus on capacity-building will enable them to deliver in fragile and conflict-affected contexts. Most importantly, upscaling is essential: the New Collective Quantified Goal on Climate Finance (NCQG) calls for at least a tripling of outflows from UNFCCC climate funds (the GCF, GEF and Adaptation Fund) from 2022 levels by 2030. Complementary scaling-up of the CIF will be needed to align with this ambition. Achieving this will require optimised balance sheets, innovative funding models, replenishments anchored in evidence of impact, and complementary sources such

as solidarity levies. Beyond their own resources, the VCEFs must act as catalytic de-risking platforms, deploying grants, concessional loans, equity, guarantees and local currency instruments to mobilise much larger flows of public and private finance.

Recent progress

Following the 2024 G20-mandated review, the VCEFs have begun implementing reforms to strengthen access, efficiency and impact. While the scope and pace differ across funds, together these changes signal a move towards greater responsiveness and coherence.

- **Accreditation has been a priority.** The GCF adopted a Revised Accreditation Framework in July 2025, aiming to complete reviews of new entities within nine months and to accredit 40 to 50 additional partners by 2026. The GEF is seeking synergies with other VCEFs, exploring options to fast-track entities already accredited by the AF or GCF. This would reduce the administrative burden while maintaining rigorous standards, and could expand access to the Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF) without redundant processes.
- **Efficiency and disbursement are also improving.** The GCF's 'Efficient GCF' initiative has reduced the time from project approval to disbursement, with 20 of 44 new projects signing legal agreements within 24 hours of Board approval and 10 disbursing in under two weeks. The GCF has also set a target to complete project reviews from concept to Board consideration in under nine months.
- **Regional presence has become a central pillar of the GCF's institutional transformation,** designed to bring the Fund closer to the countries it serves, strengthen ownership and provide more timely and context-specific support.
- **Mobilising the private sector remains a defining feature of the GCF,** which has committed around one-third of its $18 billion portfolio to private operations. This includes working with local financial institutions, supporting new market creation through catalytic equity, and partnering with global financiers to mobilise institutional capital at scale. The CIF is complementing this work by developing a 'High Leverage Mechanism' to deploy high-impact instruments alongside the Clean Technology Fund.
- **Country platforms are being supported across funds**. Through its readiness programme, the GCF is helping countries such as Brazil and nations in the Caribbean to set up their respective platforms. The GEF has engaged in IMF and World Bank Climate Finance Roundtables in Madagascar, Côte d'Ivoire, Benin and the Seychelles, aligning upstream delivery of finance with country platform principles. The CIF is also active in supporting the design of country platforms.
- **Capacity-building remains a shared priority**. The GCF's Readiness and Preparatory Support Programme is the largest of its kind, with 874 grants worth $753 million across 142 countries. A revised Readiness Strategy launched in 2025 shifted from annual to four-year planning cycles, giving countries more predictability. Other funds also continue to strengthen institutional frameworks, investment plans and pipelines.
- **System-wide collaboration is advancing**. The AF and GCF are developing a structured framework to scale up successful AF projects through GCF funding. The GCF and GEF are pursuing their Long-Term Vision through joint programming dialogues in Rwanda and Uganda. The CIF has launched its new ARISE programme on adaptation and resilience, designed in consultation with MDBs and other VCEFs. Coordination also takes place through the Multilateral Climate Funds Task Force and Heads Meeting, which now includes a joint action plan on common priorities.

- **Finally, harmonisation of indicators is progressing**. The VCEFs are working on a draft harmonised results framework, with a joint report expected at COP30. This effort to align methodologies will reduce reporting burdens and improve comparability of results across funds.

Strategic priorities for the role of VCEFs

In the short to medium term, the VCEFs should consolidate reforms already underway and advance a set of priorities that can position them to deliver on their catalytic role by 2035. These priorities are consistent with the recommendations of the IHLEG and the COP30 Circle of Finance Ministers and focus on access and equity, country ownership, collaboration, mobilisation and governance.

Together, these actions would allow the VCEFs to evolve into a coherent system – small in absolute size but catalytic in their ability to direct scarce concessional finance towards areas of highest impact, support country-driven strategies and mobilise wider pools of public and private capital.

Table 5.3. Strategic priorities and action agenda for the VCEFs

Improve access and equity
• **Create dedicated mechanisms to expand their participation**. Access to VCEFs remains uneven, with LDCs, SIDs and vulnerable communities often disadvantaged by limited institutional capacity and complex procedures. Examples of such mechanisms include simplified application windows, enhanced readiness grants, and fast-track modalities for accredited national entities.
• **Sustain support for local organisations**, which are often best placed to reach vulnerable populations but struggle to meet the funds' fiduciary and reporting requirements.
• **Develop regional approaches to address cross-border challenges and generate economies of scale,** such as basin-wide adaptation programmes or joint renewable energy initiatives.
Strengthen country ownership
• **Align support from VCEFs through country platforms and programmatic approaches**, moving beyond fragmented project pipelines. This shift would embed VCEF support into nationally determined strategies and investment plans, ensuring that concessional finance underpins system-level transformation.
• **Tie readiness and preparatory support more closely to country platform development**, with resources used to strengthen focal points, Ministries of Finance and planning institutions.
• **Increase reliance on nationally accredited entities and regional development banks** to build absorptive capacity and create a pipeline of projects rooted in local priorities.
Enhance collaboration to overcome fragmentation and duplication
• **Harmonise procedures** – particularly accreditation and project approval – to reduce transaction costs and facilitate joint programming.

- **Create structured partnerships with MDBs and NDBs, combined with greater coordination among VCEFs themselves.** MDBs bring scale, while NDBs facilitate local implementation. VCEFs can bridge the two by providing concessional risk capital and technical support. Joint action should extend beyond finance to include project preparation, capacity-building and policy dialogue, enabling VCEFs to act as part of a broader system rather than in isolation.

Mobilise finance at scale

- **Move from project-by-project financing to catalytic mobilisation of larger capital flows.** This is essential to meet the NCQG targets and means deploying a broader set of instruments – catalytic equity, guarantees, local currency facilities and debt-for-climate swaps – tailored to country circumstances. Such instruments can crowd in domestic institutional investors, open up space for private capital in adaptation, and support new markets for biodiversity and just transition finance.
- **Make mobilisation targets explicit and linked to thematic priorities**, ensuring that the drive for scale does not dilute the focus on vulnerable groups or underfunded areas such as adaptation and nature.

Streamline governance to make the funds more agile and coherent

- **Increase cooperation and structured knowledge-sharing** at the Board level to speed up decision-making and avoid duplication. Assessing common functions – such as accreditation, monitoring and evaluation, and learning – could pave the way for shared systems across funds, reducing costs and delays.
- **Set clear implementation timelines and milestones, monitored transparently** to build confidence among contributors and recipients.
- **Anchor replenishments in demonstrated efficiency, mobilisation and impact**, strengthening the case for scale-up.

5.3. Tapping the potential of carbon markets

Carbon markets are set to play an increasingly important role within the broader climate-finance architecture, mobilising resources both domestically – through carbon pricing instruments such as taxes and emissions trading systems – and internationally, through the sale of high-integrity carbon credits. Cross-border finance primarily flows through three mechanisms: voluntary carbon markets, bilateral cooperative approaches under Article 6.2, and the UN-supervised Article 6.4 mechanism. Together, these channels can generate debt-free, results-based payments for mitigation in EMDEs, complementing public and concessional finance. Their scale will depend on several factors: the clarity and ambition of policy frameworks, which shape demand and carbon prices; the deployment of carbon-dioxide-removal technologies, which will influence the supply and cost of high-quality credits; and the strength of integrity and transparency standards that underpin market credibility. Drawing on projections from a range of market analyses and institutions,[20] the potential value of cross-border carbon-market finance to EMDEs (other than China) could reach **$30–140 billion per year by 2035**, provided ongoing reforms deliver a high-integrity and scalable global regime (see Table 3.4).

[20] Including Bloomberg NEF, MSCI/Trove, Fastmarkets, AlliedOffsets, Oliver Wyman and IETA.

The state of play and current challenges

Carbon markets are an increasingly important part of the climate finance landscape. Broadly, they take two forms:

- **Carbon pricing schemes,** such as emissions trading systems (ETSs) and carbon taxes, put a direct price on carbon by requiring firms to pay for their emissions. This internalises the cost of emissions and incentivises investment in low-carbon technologies. Close to 30% of global emissions are now covered by a carbon price, up from 10% in 2024, with EMDEs including Brazil, Colombia and Mexico introducing new systems (World Bank Group, 2025c). Globally, these instruments raised over $100 billion in revenues in 2024 (World Bank Group, 2025c). As a major tool for domestic resource mobilisation, carbon pricing is addressed in detail in Section 4.3. The focus here is instead on the international flows that can be generated through carbon credit markets.
- **Carbon credit markets,** in contrast to carbon pricing, mobilise debt-free capital by trading verified emission reductions or removals. Used in line with an appropriate mitigation hierarchy, they can complement direct decarbonisation by companies or governments and, under Article 6 of the Paris Agreement, support cooperative approaches between countries. For the purposes of this report, the term 'carbon markets' refers to three core and non-overlapping channels that directly generate cross-border finance for EMDEs:
    - **Voluntary carbon markets (VCMs)** – private, non-compliance trading of verified credits, operate outside the UN framework and apply mainly to corporate climate targets rather than national contributions. Nevertheless, they often use similar methodologies and can evolve towards convergence with Article 6 standards.
    - **Article 6.2** – bilateral government-to-government or authorised-entity trades of internationally transferred mitigation outcomes (ITMOs).
    - **Article 6.4** – the UN-supervised Paris Agreement Crediting Mechanism (PACM).

These channels together capture the primary sources of tradable carbon-credit flows that can mobilise external, debt-free finance for EMDEs. Other mechanisms are either subsets (e.g. CORSIA transactions sit within VCMs or future Article 6 trades) or related enabling flows (e.g. pre-purchase finance or additional investment mobilised by expected credit revenues, which help bridge financing gaps in project capital stacks). These broader flows can be significant but are accounted for in other sections of the report. Article 6.8 supports non-market approaches, including capacity-building, technology transfer and finance, where trading is less appropriate.

The VCM remains small – worth $1.4 billion in 2024, down from a peak of $2 billion in 2022, reflecting persistent uncertainty about integrity and demand (Saunders et al., 2025). While the voluntary market has seen some growth in companies purchasing credits to meet climate targets – around 255 million credits were issued and 162 were used in 2024 (Ferris, 2025) – growth has been turbulent, with purchases and transaction values fluctuating significantly (Procton, 2025; Saunders et al., 2025).

Some persistent challenges explain why carbon credit markets have not been scaled up as expected:

- **Integrity concerns** remain, with ongoing debate about the extent to which projects deliver additional and lasting mitigation.

- **Governance can be fragmented,** with overlapping and sometimes contradictory standards across systems, and large volumes of legacy 'zombie' credits from the Clean Development Mechanism (CDM) threatening to dilute integrity (Bonnet-Cantalloube, 2024).
- **Demand is fragile:** voluntary offsetting programmes have collapsed amid accusations of greenwashing, and there is a lack of clarity on how credits can legitimately be used in corporate transition plans.
- **Supply from LDCs and SIDs remains untapped:** India, China and Brazil dominate supply, while LDCs and SIDs – despite vast potential – account for only around 1.5% of projects (UNCTAD, 2024).
- **Equity is also a concern:** in some cases a relatively small share of revenues reaches local communities, and cases of land conflict, displacement and weak benefit-sharing have been documented (Blake, 2023; Dunne and Quiroz, 2023; Human Rights Watch, 2024; ActionAid, 2025).

However, these markets have the potential to unlock private capital at scale, complement scarce concessional resources and generate durable, results-based revenues. If implemented robustly, cooperative implementation of Nationally Determined Contributions (NDCs) through Article 6 could cut the global cost of achieving pledges by more than half, potentially doubling global mitigation if savings are reinvested (Edmonds et al., 2023). Carbon markets could also supply up to one-third of the finance needed for nature-based climate solutions by 2030 (Landholm et al., 2022).

Several developments are creating the conditions for a step-change in carbon credit markets:

- **First, countries are increasingly adopting carbon pricing as a mainstream fiscal and climate tool.**
- **Second, Article 6 is moving into operation:** bilateral deals under Article 6.2 are expanding, while the Article 6.4 mechanism will begin issuing credits this year, offering a common benchmark for integrity. Article 6.8, though less utilised to date, could provide targeted support for climate-vulnerable countries. As these provisions move from design to operation, they could provide EMDEs with internationally recognised standards, predictable demand from advanced economy buyers, and support for countries with limited readiness.
- **Third, plurilateral initiatives and standards are beginning to converge:** the Integrity Council for the Voluntary Carbon Market (ICVCM) and the Voluntary Carbon Markets Integrity Initiative (VCMI) are aligning around high-integrity standards for the supply of and demand for credits, respectively. The Coalition to Grow Carbon Markets, launched in 2025 by Kenya, Singapore and the UK with France and Panama as founding members, seeks to restore confidence and boost demand for high-quality voluntary credits by promoting the adoption of shared global integrity principles and mobilising private investment in decarbonisation and sustainable development, particularly in EMDEs. Complementing this, the Open Coalition on Compliance Carbon Markets, launched at COP30 by a group of countries including Brazil, the EU, China, the UK and Canada, aims to strengthen cooperation and interoperability among regulated carbon-market systems, enhancing transparency and integrity across compliance frameworks. Existing or emerging linkages between carbon pricing – such as between California and Québec (the Western Climate Initiative), or the planned EU–UK connection – demonstrate that integration is possible. New coalitions are also bringing fresh ideas: for example, a group of leading economists has proposed an international compliance market underpinned by a central Measurement, Accounting, Risk-mitigation and Verification Institution (MARVIN), designed to standardise emissions

measurement, integrate risk management into credit pricing, and ensure global cost minimisation while fairly allocating responsibilities between high-income countries and EMDEs.[21] The G20 has also discussed improved data standardisation for carbon credit markets as part of its Sustainable Finance Working Group. In Africa, the United Nations Development Programme (UNDP) has partnered with the Carbon Markets Africa Summit 2025 to help governments develop the institutional, regulatory and technical capacity needed to participate effectively in carbon markets and attract high-integrity carbon finance. A recent proposal from the Finance in Common system (FiCS) and the International Development Finance Club (IDFC) outlines how public development banks could jointly support the implementation of Article 6 mechanisms, helping to mobilise high-integrity carbon finance at scale and integrate these flows within the broader $1.3 trillion climate-finance goal (FiCS and IDFC, 2025).

- **Finally, new technologies** such as digital monitoring, reporting and verification (MRV) and interoperable registries are beginning to cut costs and improve transparency.

Together, these trends suggest that carbon markets are at an inflection point: if reforms succeed, they could evolve from fragmented mechanisms into a credible and scalable channel for climate finance to EMDEs.

Building high-integrity, inclusive and scalable carbon markets

Carbon markets are at a crossroads. The drivers for scale are in place – growing adoption of carbon pricing, operationalisation of Paris Article 6, plurilateral coalitions, and convergence on integrity standards – but unless reforms are pursued with urgency, the same challenges that have dogged markets for two decades will continue to erode trust. For EMDEs other than China, this is a critical moment: markets could channel tens of billions of dollars annually by 2035, but only if they deliver real mitigation, attract predictable demand, and share benefits fairly with host countries and communities. Carbon-market finance should also include finance for programmatic or large-scale change, not just project-by-project finance. This type of carbon-market finance is more easily integrated into overall action for sustainable development.

Four building blocks are essential to shift from today's fragmented markets to high-integrity, inclusive and scalable systems that are locally anchored but globally connected:

1. **High ambition carbon pricing that meets local needs.** EMDEs need technical and financial support to design pricing mechanisms suited to their contexts, while gradually phasing in obligations and recycling revenues into decarbonisation and just transition priorities. Linking these systems regionally and internationally can unlock larger flows, while allowing a limited share of obligations to be met with high-integrity credits could expand demand.
2. **High-integrity carbon credits with robust supply standards.** Early Article 6.2 projects, such as Swiss-backed deals in Ghana and electric buses in Bangkok, highlighted weaknesses in additionality and transparency (Berner, 2024a; 2024b). To restore confidence, standards need to converge around recognised benchmarks like the Article 6.4 rules and the ICVCM Core Carbon Principles. EMDEs will also need support to build and scale up MRV and registry capacity. Regional alliances – such as the West African

[21] This proposal emphasises the creation of a global public institution to underpin markets. MARVIN would not only harmonise MRV but also integrate insurance and risk-mitigation directly into credit pricing, so that credit buyers pay a premium reflecting permanence and additionality risks. The proposal also seeks to balance fairness and efficiency by using MARVIN to determine how mitigation costs should be shared between high-income countries and EMDEs, offering a potential blueprint for a rules-based global carbon market.

Alliance – demonstrate how aggregation can reduce costs and open doors for smaller EMDEs, LDCs and SIDs.

3. **Clear and credible rules for credit use (demand integrity).** Demand for credits has faltered, in part because companies face unclear guidance on how credits can be used in credible transition strategies. Several airlines have scaled back or restructured consumer offsetting programmes amid accusations of greenwashing, while projects such as a Kenyan scheme backed by Meta and Netflix have faced legal challenges over land rights and methodologies (Guthrie, 2025; O'Connell, 2025). Without clear rules, corporate buyers hesitate to scale up procurement. A credible framework requires a mitigation hierarchy – internal decarbonisation first, credits only for residuals or narrowly defined cases such as Scope 3 or hard-to-abate sectors. Equally important is clarity on claims: consumers and investors must be confident that credits represent additional action rather than substitutes for delayed mitigation.
4. **Trusted and interoperable market infrastructure.** The current patchwork of registries and accounting practices inflates costs and restricts participation, particularly for smaller EMDEs. While differences in eligibility standards reflect deliberate policy choices, the absence of common frameworks for MRV and for validation and verification bodies (VVBs) undermines efficiency and trust. Enhanced MRV capacity, supported by well-resourced and independent VVBs, is essential to assure credit quality. At the same time, better data standardisation – building on efforts such as the G20 Common Carbon Credit Data Model – together with greater disclosure will reduce transaction costs and improve transparency. Finally, clarity and consistency in the legal and accounting treatment of credits is needed to unlock institutional investor participation. Without these elements of robust market infrastructure, carbon markets will remain fragmented and unable to deliver finance at the scale required by EMDEs.

Equity must cut across all four pillars, with carbon markets supporting a just transition: revenues must reach Indigenous Peoples and local communities as rights holders, benefit-sharing frameworks must be standardised, and safeguards should prevent displacement or loss of livelihoods. CBAMs and similar instruments should be designed to consider EMDE competitiveness and common but differentiated responsibilities, potentially allowing importers to use high-integrity EMDE credits to meet part of their obligations.

Strategic priorities for tapping carbon markets

To unlock carbon markets for EMDEs, action must land on the four pillars presented above – high ambition carbon pricing, high-integrity credit supply, clear and credible rules for use and claims, and trusted and interoperable market infrastructure – embedded in just-transition safeguards and supported by plurilateral cooperation. The agenda shown in Table 5.4 translates these into concrete responsibilities for governments, regulators, MDBs and market actors, with near-term moves that build towards system scale. This agenda builds directly on the priorities identified by the COP30 Circle of Finance Ministers (2025), which call for interoperability, integrity, fairness and capacity-building as the foundations of an effective global carbon-market system.

Table 5.4. Strategic priorities and action agenda to tap the potential of carbon markets

High ambition carbon pricing that meets local needs
• **Phase-in with tailored support.** Governments, supported by MDBs and bilateral donors, should gradually introduce carbon pricing, sequencing sectoral coverage and obligations to reflect national circumstances, and providing sustained technical and financial assistance for MRV, registries and enforcement capacity.
• **Unlock demand through limited credit use.** Regulators and Ministries of Finance should allow a capped share of compliance obligations to be met with high-integrity credits, recognising both removal and reduction units that meet international standards, and broaden eligibility beyond domestic-only credits where integrity is ensured.
• **Share knowledge systematically.** The Brazilian COP30 Presidency, working with MDBs, should convene structured platforms for peer learning between EMDEs and advanced economies on ETS and carbon tax design, the integration of credits, and equitable carbon-leakage strategies such as interaction with CBAMs.
High-integrity carbon credits with robust supply standards and wider access
• **Embed recognised standards.** Governments should incorporate benchmarks such as the ICVCM Core Carbon Principles, CORSIA [Carbon Offsetting and Reduction Scheme for International Aviation] eligibility criteria, and Article 6.4 guidance as the international benchmark for integrity and eligibility into domestic regulation to avoid fragmentation and build buyer confidence.
• **Adapt and converge methodologies.** National authorities, working with standard-setters and technical partners, should adapt methodologies to local ecologies and economies while building consensus on best practice and mutual recognition across jurisdictions.
• **Expand MRV and verification capacity.** MDBs and donors should finance independent MRV systems, establish domestic Validation and Verification Bodies, and support interoperable registries, with a roadmap towards digital MRV and carbon-accounting interoperability in line with Article 6.4 methodologies and the Common Carbon Credit Data Model (CCCDM), to cut costs and improve transparency.
• **Mitigate risks through system-wide tools.** Donors, insurers and standards bodies should promote buffers and insurance to manage permanence and leakage risks, especially for nature-based solutions, while avoiding blanket penalties that could disadvantage EMDEs.
Demand integrity: clear rules for use and claims
• **Codify a mitigation hierarchy.** Regulators should require companies to prioritise internal decarbonisation first, allowing credits only as complements to neutralise residual emissions or bridge interim gaps in Scope 3 and hard-to-abate sectors.
• **Incentivise high-integrity removals.** Governments and standard-setters should create incentives for companies to buy nature- and technology-based removals to neutralise residual emissions below a reference pathway, in addition to, not instead of, value-chain decarbonisation.

- **Clarify permissible claims.** Regulators should define credible claims in line with initiatives like VCMI and the Coalition to Grow Carbon Markets, and work towards convergence across jurisdictions to avoid fragmentation and reduce the risk of greenwashing.

Trusted, cross-border digital market infrastructure

- **Connect markets across borders.** Governments and market operators should design infrastructure that links voluntary, compliance and Article 6 systems, enabling seamless cross-border credit trading.
- **Ensure regulatory coherence.** Securities regulators should align with the guidance of the International Organization of Securities Commissions (IOSCO) on voluntary carbon markets where credits are treated as financial instruments, avoiding duplication and conflicting oversight.
- **Clarify legal and accounting rules.** Ministries of Finance, accounting boards and legal standard-setters should resolve how credits are treated in law and on balance sheets, giving institutional investors the certainty to participate.
- **Standardise data models.** The G20 Sustainable Finance Working Group, in collaboration with national registries, should accelerate adoption of the CCCDM and ensure consistency with Article 6.4 accounting methodologies, embedding these into digitised MRV and registry systems to ensure traceability and comparability.

Embed equity and just transition principles

- **Anchor rules in local contexts.** Governments and international organisations should design carbon market frameworks that reflect national development goals, mitigation potential, and local capacities and circumstances, with consultation built in.
- **Recognise rights holders and share benefits.** Legislatures and regulators should formally recognise Indigenous Peoples and local communities as rights holders and mandate transparent, enforceable benefit-sharing so revenues flow fairly into adaptation, resilience and development.
- **Design CBAMs fairly.** Advanced economies should develop CBAMs in collaboration with EMDEs, ensuring competitiveness is not penalised, and consider allowing importers to meet part of their obligations with high-integrity EMDE credits.
- **Avoid penalising nature-based solutions (NbS).** Standards bodies and regulators should apply permanence rules in a way that preserves credibility while safeguarding the role of NbS, which are essential to many EMDEs' transition pathways.

A plurilateral push on a high-integrity carbon market coalition at COP30

- **Launch a coalition with broad participation.** Brazil and early-mover EMDE governments should establish a coalition to promote locally anchored but globally connected markets, serving as a structured and inclusive platform for interoperability, convergence and shared governance, grounded in sovereignty, equity and science. Quarterly convenings could include observers from finance, civil society, Indigenous groups and project developers.
- **Define shared principles for carbon pricing.** Coalition members should agree on ambitious design principles for ETSs and carbon taxes, including tax rates or ETS

emissions caps aligned with Paris Agreement goals, broad sectoral coverage, rigorous MRV, revenue recycling, progressive linking and the appropriate use of credits.

- **Align supply and demand integrity.** Members should commit to PACM and ICVCM standards for supply and adopt common demand-side rules on mitigation hierarchy and claims to prevent conflicting guidance.
- **Pilot interoperable infrastructure.** Coalition workstreams should enable registry interoperability through data models like the Common Carbon Credit Data Model developed for the G20, develop mutually recognised legal and accounting treatments, and scale up standardised MRV.
- **Embed just transition safeguards.** The coalition should commit to equitable benefit-sharing, Indigenous Peoples' participation, and reinvestment of revenues in resilience and development priorities.
- **Commit to adaptive governance.** Members should establish regular review and feedback mechanisms to align carbon-market governance with evolving climate science, economic conditions and investor needs.

5.4. Delivering and expanding options for concessional and low-cost finance

A more challenging context for concessional finance

Concessional finance remains the bedrock of international climate finance, grounded in developed-country commitments under the Paris Agreement and reaffirmed through the New Collective Quantified Goal (NCQG). It is uniquely suited to address needs that markets overlook – supporting climate-vulnerable countries and funding areas without direct revenue streams, including adaptation, loss and damage, nature restoration and just transitions. As climate impacts intensify, the demand for such finance will rise sharply.

Concessional resources also play a catalytic role, strengthening fiscal capacity, lowering the cost of capital and mobilising private investment. MDBs' concessional windows can multiply donor resources severalfold, making them indispensable. But the system is under severe strain: adaptation needs in EMDEs other than China could reach $400 billion a year by 2035; the Loss and Damage Fund covers less than 0.3% of expected costs; and nature finance remains marginal (see Section 2.1). IHLEG analysis shows that concessional flows must increase at least fourfold by 2035 to close these gaps.

Delivering on developed-country pledges is therefore essential, but meeting the full scale of need will also require broadening the pool of affordable finance. The NCQG agreed at COP29 placed bilateral finance at the heart of the new global compact, with a particular focus on adaptation and resilience in climate-vulnerable countries. But the NCQG also recognised that concessional finance must be complemented by much larger volumes, mobilised through the Baku to Belém Roadmap. The Report of the Circle of Finance Ministers (2025) also recognises the need for increased innovating in financing structures and instruments to fill the concessional financing gap. Instruments such as SDR rechannelling, global solidarity levies and philanthropic mechanisms can complement concessional flows and provide low-cost capital for blended investment, capacity-building, and just transition initiatives.

South–South cooperation is a distinct yet complementary channel. It is anchored in real-sector opportunities rather than aid, driven by cross-investment among EMDEs in renewable energy, resilient infrastructure and industrial transformation.

Delivering bilateral climate finance commitments

Official development assistance (ODA) – the primary source of concessional climate finance – is facing simultaneous pressures of rising demand and declining supply. While needs are escalating, donor budgets are shrinking, requiring urgent steps to both enhance the impact of ODA and expand complementary sources of concessional finance. After a decade of steady growth, ODA fell by 7% in real terms in 2024, with further cuts of 9–17% expected in 2025 (OECD, 2025e). By 2027, annual ODA could fall by nearly $50 billion compared with recent peaks – the largest reversal in its history (OECD, 2025e). Low-income countries, which depend most heavily on concessional resources, are likely to be most affected.

The sharp decline in ODA underscores the need for a reshaped concessional finance system. The priority now is to enhance the effectiveness of existing flows while developing complementary, innovative sources to ensure concessional finance can meet the rising demands of the decade ahead.

Concessional climate finance has grown but remains insufficient. In 2022, international concessional climate finance reached $81 billion, of which $50 billion were bilateral flows and $27 billion from multilateral channels (Naran et al., 2024; see also OECD, 2024). While bilateral ODA remains foundational, concessional financing by MDBs has increased faster in recent years (OECD, 2024). Compared with bilateral and concessional financing by MDBs, vertical climate funds (the GCF, GEF, CIF and AF) are important delivery vehicles but have grown more modestly and variably over the years.

The composition of flows reflects persistent gaps and imbalances. Finance continues to favour mitigation over adaptation, despite the urgent need for resilience-building. The latest estimate of adaptation financing provided by developed countries was $32.4 billion in 2022 (OECD, 2024). Adaptation finance would have had to increase to around $38 billion if developed countries were to double their adaptation financing from 2019 levels by 2025 as agreed at COP26 (the Glasgow Climate Pact goal). Additionally, access to finance is fragmented across numerous providers and instruments, raising transaction costs for recipient countries. The absence of consistent metrics also makes it difficult to track volumes and impacts effectively (Bhattacharya et al., 2024; Naran et al., 2024).

The recent decline in ODA has intensified concerns about its reliability. The 7% fall in 2024, and further reductions expected in 2025 and beyond, risks erasing gains from the past decade (OECD, 2025e). For low-income and climate-vulnerable countries, this threatens a critical source of predictable support at the very moment that climate costs are accelerating.

Strategic priorities for bilateral climate finance and next steps

While the current context of ODA poses new challenges, the delivery of bilateral concessional climate finance remains of critical importance to meeting the priority needs of poor and climate-vulnerable countries and to leveraging other flows at scale. Bilateral official climate finance could contribute $60–100 billion in 2035 to the $1.3 trillion external finance goal (see Table 3.4). The lower end of the range assumes an increase of 50% relative to the 2022 level based on the current outlook. The upper end assumes an increase of 2.4 times the 2022 level by 2035, which is ambitious but potentially achievable.

Strong political commitment will be needed from leading developed countries to deliver on this ambition. In an open letter published on 30 October 2025, the UK's Minister for Climate, Katie White, and Germany's State Secretary for Climate, Jochen Flasbarth, together with other major contributors, affirmed that they are "committed to be amongst the countries taking the lead in reaching the goal of at least USD 300 billion

per year and, as part of the global effort, work to scale up financing to developing country Parties for climate action to at least USD 1.3 trillion by 2035" (UK Government and Federal Government of Germany, 2025).

The sharp decline in ODA, combined with rapidly growing needs for adaptation, loss and damage, nature, and just transitions, underscores the urgency for action. Building on recent commitments, the priorities set out in Table 5.5 highlight where concessional finance must focus to maintain credibility and deliver impact.

Together, these priorities define the path forward. Using bilateral ODA more effectively, safeguarding multilateral concessional flows and enhancing the catalytic role of concessional finance are mutually reinforcing. Anchored in the NCQG and the Baku to Belém Roadmap, they provide a coherent agenda to reshape concessional finance into a more resilient, predictable and impactful system capable of supporting the scale-up of climate investment needed by 2035.

Table 5.5. Strategic priorities and action agenda to deliver on bilateral climate finance commitments

Deliver on commitments under the NCQG
• **Uphold bilateral pledges** even in the face of fiscal pressures and ODA cutbacks. • **Ensure contributions remain aligned with the NCQG goal,** providing predictable and credible multi-year support.
Use bilateral ODA more effectively to promote climate and development
• **Maintain a stronger focus on results at the country level,** including measuring and tracking outcomes. • **Developed countries should increase their collective contributions for adaptation,** building on their prior commitments to at least double contributions between 2019 and 2025, recognising both the development co-benefits of adaptation and its dependence on concessional terms.
Protect and leverage multilateral ODA in times of cutbacks
• **Safeguard the replenishment of the African Development Fund** at the end of 2025. • **Deliver on the commitment made by COP29 parties to triple contributions to multilateral climate funds under the Convention,** including the Green Climate Fund. This will require both continued reform of the funds and a well-specified path of support from the Development Assistance Committee (DAC) of the OECD and other donors.
Enhance the catalytic role of concessional finance to mobilise wider resources
• **Strengthen tax capacity, integrate climate goals into fiscal management and support national planning.** ODA for domestic resource mobilisation has declined in recent years, even though the Seville Commitment calls for doubling it. Reversing this trend is foundational for fiscal sustainability. • **Increase catalytic concessional resources.** This is essential for developing blended instruments, support project preparation and strengthen domestic financial systems.

This can also help countries address regulatory barriers to investment and build the capacity needed to crowd in both domestic and international private capital.

Leveraging South–South cooperation

There is significant potential for mobilising climate finance through South–South cooperation, which is already estimated in the mid-tens of billions of dollars annually. Most of this finance is channelled through multilateral institutions where EMDEs are major shareholders, complemented by bilateral flows, export credits and private co-investment. Leading emerging markets such China, India, Brazil and South Africa are expanding cross-border investment and finance, while many Southern-based DFIs are scaling up their green portfolios. The direction of investment is gradually shifting from fossil fuel-based infrastructure towards renewables, resilience and digital connectivity. The role of China's Belt and Road Initiative (BRI) is particularly significant: BRI's green energy investment is growing and reached $9.7 billion in the first half of 2025, even as oil and gas projects remained substantial (Nedopil, 2025). Overall, South–South cooperation could contribute **$30-60 billion per year by 2035** to the $1.3 trillion external finance target.

South–South cooperation in climate finance today operates through three main channels:

1. **Cross-investment by EMDEs.** South–South flows increasingly target renewables, transport and resilient infrastructure. The BRI alone has channelled over $1.3 trillion since 2013 – making it the largest source of South–South investment (Nedopil, 2025), while national development banks and sovereign funds from the Global South are expanding their regional reach. Many of these flows are increasingly structured in local currency or linked to regional supply chains, helping reduce foreign-exchange exposure and strengthen real-sector linkages.
2. **South-led multilateral institutions and development banks.** Institutions such as the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank have rapidly expanded lending capacity. The combined loan books of 10 Southern-majority MDBs grew from $7 billion in 2000 to $89 billion in 2023, with the AIIB now targeting ≥ 50% climate finance and the New Development Bank 40% (Humphrey, 2025). National and sub-regional banks such as South Africa's DBSA and Brazil's BNDES are also playing a pivotal role in cross-border climate and infrastructure projects, fostering South–South cooperation at both regional and global levels.
3. **Emerging financial hubs and green banks.** Countries such as India, Rwanda and Vietnam are developing international financial centres that could serve as green finance hubs for the Global South (e.g. GIFT City and Kigali IFC in India and Rwanda, respectively). If linked to regional green banks, these platforms could pool capital, build pipelines of investable projects, and provide de-risking instruments to crowd in institutional investors. Private capital is also scaling up: the UAE-backed Altérra platform has committed $5 billion of its $30 billion to emerging-economy investments (Segal, 2024).

South–South cooperation is also increasingly aligned with global agendas: the G77's 'Pact for the Future', the BRICS partnership and the UN's South–South Climate Action Plan all emphasise the need to increase cooperation for renewable energy, digital infrastructure and adaptation.

The opportunity

South–South cooperation has become an increasingly important channel for advancing climate investment across EMDEs. Unlike traditional North–South flows,

which focus principally on concessional capital and capacity building, South–South cooperation is anchored in real sector opportunities – particularly in energy transition and infrastructure. China operates the world's largest South–South infrastructure programme (the BRI) and is a major bilateral financier in many regions. Within Africa, national development banks such as the Development Bank of Southern Africa (DBSA) are expanding cross-border roles and regional integration. These flows are often driven by industrial strategy, market development and mutual benefit, making them more catalytic than purely financial transfers.

Beyond bilateral flows, South–South cooperation strengthens solidarity and peer learning among countries facing common climate and development challenges. It offers models of policy innovation, technology diffusion and capacity-building that are often more context-appropriate than those imported from the Global North. Examples include Cuba's disaster risk management systems, Chinese renewable energy technology transfer to Ghana, and city-level partnerships between São Paulo, Cần Thơ and Santa Marta – illustrating how this form of cooperation can deliver scalable and inclusive climate solutions.

Challenges

Despite progress, several barriers limit the potential of South–South cooperation in climate finance:

- **Incomplete reporting and tracking.** Few countries have robust frameworks for recording, reporting and evaluating finance emerging through South–South channels, making it difficult to mobilise at scale or ensure accountability.
- **Fragmentation, limited scale and reliance on loans.** Many initiatives remain small, project-based and poorly coordinated across regions. Most South–South support – like North–South flows – continues to be delivered as loans, often in foreign currency, which heightens debt risk and limits accessibility.
- **Currency and debt constraints.** Heavy reliance on dollar-denominated lending exposes borrowers to exchange-rate volatility and debt stress. Debt-treatment processes have so far given limited attention to climate vulnerability or the fiscal effects of climate shocks.
- **Political economy tensions.** Some South–South investments have raised concerns over debt sustainability, environmental safeguards or local benefits, underscoring the need for shared ESG standards.
- **Underdeveloped climate mainstreaming.** While institutions such as the New Development Bank and Asian Infrastructure Investment Bank (AIIB) are expanding their climate portfolios, they still lag behind established MDBs in climate alignment standards and disclosures.

Table 5.6. Strategic priorities and action agenda to leverage South–South cooperation

Strengthen Global South-led institutions and scale up investment
• **Deepen the climate mainstreaming** of the AIIB, New Development Bank and regional development banks, expanding their concessional and private-sector windows.
• **Mobilise additional capital** from Global South governments, sovereign funds, philanthropies and blended-finance facilities.
• **Develop regional green banks or finance platforms** linked to emerging financial hubs (like GIFT City and Kigali IFC) to channel regional savings into renewable energy, resilient infrastructure and nature-based solutions.
• **Expand cross-investment among EMDEs** – particularly in local currency and through regional supply chains – to reduce FX risk and strengthen real-sector linkages.
Accelerate technology and knowledge partnerships
• **Institutionalise South–South cooperation on climate technologies and innovation** through the UNFCCC Technology Mechanism, the BRI science-park network and regional centres of excellence.
• **Prioritise collaboration** in renewable energy, electric mobility, green hydrogen, sustainable agriculture and digital tools for adaptation.
• **Scale up peer learning, training and city-to-city exchanges** to disseminate proven low-carbon and resilient solutions.
Enhance transparency, standards and safeguards
• **Establish tracking systems and common taxonomies** for South–South climate finance aligned with UNFCCC and OECD frameworks.
• **Adopt shared environmental, social and governance (ESG) safeguards** that account for the different risks, roles and constraints faced by women, men and local communities across Global South-led financial institutions. Clear requirements on consultation, access, safety and benefit-sharing will improve project quality and reduce implementation risks.
• **Publish regular joint reports on the scale and impact of South–South climate finance** to build credibility and comparability with North–South flows.
Build coalitions and embed equity and solidarity
• **Use platforms such as BRICS, G77, the Community of Latin American and Caribbean States (CELAC) and the African Union** to advocate for reforms in the global financial architecture – local-currency financing, SDR rechannelling, and fairer access to climate funds.
• **Leverage triangular cooperation to combine Northern finance and MDB capacity with Southern expertise**, particularly for LDCs and SIDs.
• **Ensure South–South initiatives embed equity, debt sustainability and just-transition principles, and recognise the different risks and constraints faced by women, men and**

local communities, so that benefits reach the most climate-vulnerable countries and communities.

Expanding the envelope of concessional finance

A range of innovative mechanisms are emerging to expand sources of climate finance, with notable progress in some areas. If scaled up with ambition, these options could generate substantial new concessional resources that help narrow financing gaps and reduce reliance on already stretched donor budgets. Some of the most prominent discussions have focused on Special Drawing Rights (SDRs), Global Solidarity Levies (GSLs) and private philanthropy.

Special Drawing Rights (SDRs)

The range of potential contributions from SDRs to the $1.3 trillion target (see Table 3.4) reflects the potential to expand the voluntary rechannelling of unused SDRs, modernise the reserve-asset framework to unlock more affordable lending, and consider a new SDR issuance to provide liquidity during macro-critical shocks, including climate change. SDRs could contribute $5–20 billion in 2035 to the $1.3 trillion external finance goal (see Table 3.4). The low end of the range ($5 billion in 2035) reflects a constrained use of SDRs allocated to recycling. The upper end ($20 billion in 2035) reflects higher levels of SDR recycling and an additional issuance by 2035.

Context and vision to 2035

The historic SDR allocation of $650 billion by the IMF in 2021 provided EMDEs with the means to boost reserves and bridge liquidity gaps (IMF, 2023c). Some countries used SDRs to create fiscal space for crisis-related spending. While most of the allocation went to high-income countries, the availability of SDRs was expanded by the voluntary rechannelling of SDRs. G7 and G20 countries pledged to rechannel $100 billion of unused SDRs, an effort strongly supported at the Paris Summit on the Global Financing Pact, the Africa Climate Summit, and by the V20 (G20, 2023).

To date, $107 billion has been rechannelled through IMF facilities (see Table 5.7):

- **Poverty Reduction and Growth Trust (PRGT): $58 billion**, strengthening IMF liquidity support for low-income countries.
- **Resilience and Sustainability Trust (RST): $49 billion**, enabling long-term lending to address medium-term balance-of-payments risks, including those from climate shocks.

Demand for the RST is already high, with commitments of $15 billion made by mid-2025 (44% of available resources). On current trends, the RST could exhaust its lending capacity within three years, requiring new rechannelling commitments.

A further potential avenue is rechannelling SDRs through MDBs, which could significantly enhance the banks' lending capacity. The IMF authorised SDR holders to acquire hybrid capital issued by MDBs in 2024, but implementation has stalled due to lack of sufficient central bank participation and concerns over preserving the reserve-asset status of SDRs.

Table 5.7. Status of SDR rechannelling, end-June 2025 ($ billion)

SDRs channelled to Poverty Reduction and Growth Trust (PRGT) and Resilience and Sustainability Trust (RST)	**$107**
SDRs channelled to:	
PRGT*	$58
Loan account	$45
Investments/deposits	$13
RST	$49
*Loan account***	$34
Reserve and deposit account	$15
SDRs committed:	
PRGT*	$38
RST	$15
SDRs disbursed:	
PRGT*	$29
RST	$6
SDRs channelled to MDBs:	Under consideration

Note: *Since March 2020. **Loan resources after accounting for the necessary liquidity and reserve buffers.
Sources: Concepts presented in the table are defined in IMF (2025d) and were updated by IMF staff at the end of June 2025.

Looking ahead to 2035, there is considerable potential to:

- **Expand voluntary rechannelling** of unused SDRs
- **Modernise the reserve-asset framework** to unlock more affordable lending
- **Consider a new SDR issuance** to provide liquidity during macro-critical shocks, including climate.

Challenges

While SDRs offer a powerful tool for mobilising affordable finance, significant barriers limit their use and sustainability.

A first challenge lies in the reluctance of central banks – notably the European Central Bank but also others – to support SDR rechannelling through MDBs. Concerns focus on preserving the reserve-asset character of SDRs, which central banks must hold as highly liquid and safe instruments. This caution has prevented initiatives such as the joint AfDB–IDB hybrid capital proposal from moving forward, despite IMF authorisation in 2024 for SDR holders to acquire such capital. Without broader participation, especially from major central banks, MDBs cannot unlock the scale of additional lending that SDR rechannelling could provide.

Second, the reserve-asset requirements themselves impose heavy constraints. Both the PRGT and RST have had to set aside large liquidity and reserve buffers – up to 30% of rechannelled SDRs and nearly 45% of the RST's loan account (Table 5.7) (see also IMF, 2024). While essential for preserving reserve-asset quality, these buffers sharply reduce the effective lending capacity of rechannelled SDRs, limiting their developmental impact.

Third, there is the sustainability of the RST itself. With demand running high, the RST has already committed nearly half of its loanable resources. If current levels of annual lending continue, it will require additional SDR contributions within the next three years.

Without a predictable replenishment framework, the RST risks becoming a temporary stopgap rather than a lasting mechanism to address macro-critical climate shocks.

Finally, there is still political hesitancy towards a new SDR issuance. Although past issuances – in 2009 during the global financial crisis and in 2021 during the pandemic – provided critical liquidity at no fiscal cost to IMF member states, there is little consensus among G20 members on deploying this instrument again. The resulting hesitation leaves the global community without a vital tool to respond to systemic shocks, including those driven by climate change.

Global solidarity levies

Significant work and deliberations are underway on the identification of potential additional sources of concessional finance. This work identifies a broad range of potential sources ranging from levies on maritime shipping and aviation to levies on fossil fuel extraction or profits. Voluntary levies could contribute $20–110 billion in 2035 to the $1.3 trillion external finance goal (see Table 3.4).

The range of voluntary levies is very broad, reflecting the following factors:

- The wide range of options
- The revenue potential based on the level of the levy applied
- The likelihood of adoption of the levy
- The size of the coalitions implementing the levy
- The share of proceeds from the levy allocated to developing countries for climate finance.

The high end of the range reflects the adoption and implementation of some concrete proposals supported by a reasonable coalition and a substantial share of proceeds allocated to climate finance for EMDEs (other than China). This does not include some proposals that could raise significant revenues but that do not yet have sufficient political traction, such as financial transaction taxes, wealth taxes or taxes on crypto.

Conversely, the low end of the range reflects the adoption of a limited set of levies supported by small coalition and with a limited allocation of proceeds to climate finance for EMDEs (other than China). The range indicated in Table 3.4 of $20–60 billion is based on an assessment of what may be achievable by 2035.

Context and vision to 2035

Momentum is building to introduce global solidarity levies on high-emitting sectors and highly mobile cross-border tax bases. These levies, mostly aligned with the polluter-pays principle, could raise substantial revenues for climate and development. There is a strong rationale for introducing these measures: for many sectors, they incentivise decarbonisation and remove implicit fossil fuel subsidies. Moreover, many of these sectors have largely escaped taxation: for example, international aviation and shipping have substantial tax privileges by not paying excise duty or value added tax. Kerosene fuel for international aviation is generally untaxed. The effective corporate income tax rate of international shipping companies is very low (Opportunity Green, 2025) and is notably carved out of the implementation of the global minimum tax of 15% under Pillar 2 of the OECD Inclusive Framework. Currently, shipping emissions are not priced to reflect their carbon intensity. Levies in these sectors can level the tax playing field, tax externalities and mobilise significant, non-debt-creating and predictable financing that is needed to support a just transition.

At COP28, France, Kenya and Barbados launched the Global Solidarity Levies Task Force (GSLTF), currently composed of 17 members, to identify feasible options and explore

potential coalitions of willing countries to lead their implementation. The intention is to identify the most promising avenues of action and formulate concrete proposals by the time COP30 happens, which could be implemented by interested stakeholders.[22]

Significant progress has already been made in these major sectors:

- **Shipping:** In April 2025, the International Maritime Organization (IMO) approved a Net Zero Framework with mandatory emissions targets and emissions pricing. Expected revenues amount to $10–12 billion per year until 2035, potentially more as carbon prices rise. An IMO Net-Zero Fund will channel revenues towards industry decarbonisation and just transition in developing countries (IMO, 2025a). While the Net Zero Framework unfortunately failed to be adopted in October 2025, the IMO will reconvene in a year's time and will continue to pursue consensus in the interim (IMO, 2025b). In the absence of a consensus, voluntary taxation by a coalition of countries could be an option.
- **Aviation:** In June 2025, eight countries at the Fourth International Conference on Financing for Development, under the Sevilla Platform for Action, launched the Premium Flyers Solidarity Coalition to introduce levies on premium air travel (business and first class) and private jets, with revenue-sharing commitments for international climate and development finance (Élysée, 2025). This is the first coalition of the willing on a solidarity levy. The emergence of a coalition of countries to participate in a voluntary solidarity tax on premium aviation provides a strong signal of interest in developing a new source of non-debt-creating climate finance. The envisaged levy is progressive, and its feasibility and scalability are also supported by practical experience in aviation levies in many countries (more than 52 countries already implement a form of aviation taxation). If implemented globally, an aviation ticket levy that is restricted to premium tickets could generate around $43 billion annually, so even as a coalition of the willing, significant amounts will be raised. The next challenge is its implementation and scaling up its revenue potential by expanding the membership of the coalition.

At this juncture, there is some optimism that the recent reform momentum for levies on international shipping and aviation could lead to new sources of climate financing. There are additional types of voluntary taxes that have significant revenue potential to finance international climate action but they will still need to garner more consensus.

The GSLTF has put forward 16 levy proposals, encompassing aviation fuel taxes, levies on fossil fuels – on revenues, extraction and profits – but also on plastics and cryptocurrency transactions, areas with large and growing carbon footprints that require coordinated tax responses. Other proposals include levies on financial services and high-net-worth individuals that will improve taxation of cross-border transactions while raising significant revenues. Each proposal addresses externalities, efficiency and equity considerations. Technical assessments of these levies suggest enormous revenue potential if applied globally and by a coalition of countries. Revenue intake will also depend on the carbon price applied (see Table 5.8).

International aviation kerosene and ticket levies can yield significant revenues if applied globally and even by a more limited set of coalition countries. There are no major legal obstacles for governments to tax kerosene in a coalition of the willing format. On the whole, the decision not to tax aviation fuel is a political decision rather than a response to a legal restriction.

There is a strong rationale for fossil fuel taxation in various forms as an important source of climate finance. While politically difficult, many countries already have existing

[22] This section draws on GSLTF (forthcoming).

fossil fuel profits taxation regimes that can be strengthened and reflect climate externalities better. Fossil fuel taxation will have enormous revenue potential to support international climate finance.

Financial transaction taxes (FTTs) have been implemented by about 30 countries but remain significantly underused. Depending on the scope of the application of an FTT, a 0.5% tax on equity could yield $12–163 billion annually, noting that FTTs implemented today already raise $17 billion per year. One way forward would be to tax equity transactions among a coalition of countries, an action that has few negative impacts on financial markets and could be politically feasible to expand. Yet another avenue is a green FTT linking tax rates to environmental performance, which would also have significant revenue potential.

There is also growing interest in taxing other activities associated with high energy use. One is taxing plastics, including in the context of international discussions to contain plastic pollution. Among concerns about the continued growth of cryptocurrencies is their energy consumption, and the appropriate taxation to contain the environmental impact is gaining strong interest but is still at initial stages of discussion. Additionally, international cooperation for coordinated taxation of the ultra-rich is gaining interest in terms of its potential to allocate its significant revenues to finance climate action (Duflo, 2025).

All these possibilities show that by 2035 the potential revenue that could be derived from a portfolio of solidarity levies applied even by coalitions of willing countries will have a wide range. Based on the options discussed in Table 5.8 and their feasibility at this point, expected potential revenues could possibly range from $10 billion to several billions.

A significant share of the revenues raised by the levies will be used domestically, where it could contribute to domestic resource mobilisation to support climate and development priorities. Thus, only a portion of these revenues would be used for international climate finance. While it is widely recognised that these shared proceeds should flow to EMDEs that have disproportionate needs for adaptation, addressing loss and damage, and just transition, there is still limited understanding of how much, through which mechanisms, or based on what criteria (GSLTF, 2025a; 2025b; 2025c) – although further clarity on this for the Premium Flyers Solidarity Coalition is expected at COP30.

Table 5.8. Estimated potential revenues from global solidarity levies, applied globally and in a coalition-of-the-willing format

	Estimated potential revenues	Comments
Maritime shipping levy	If adopted, the IMO Net Zero Framework is expected to generate revenues of around **$10–12 billion per year** until 2035 (UCL Shipping and Research Group, 2025).	

Aviation kerosene levy	If adopted globally, a levy on aviation kerosene fuel on all international flights could raise **$140 billion per year**. A coalition-of-the-willing format applying a lower levy could raise **$38 billion per year.** The coalition is assumed to be composed of GSLTF and EEA countries plus Brazil, Canada, Japan, South Korea, South Africa, Türkiye and the United Kingdom (CE Delft, 2025).	The global estimate assumes a rate of €0.548 per litre ($0.64), equivalent to the average petrol/gasoline tax for cars in the EU in 2024. The coalition estimate assumes a rate of €0.368 per litre ($0.43), equivalent to proposed kerosene tax rate under the EU's Fit-for-55 package and is close to the social cost of carbon.
Aviation ticket levy	If adopted globally, a levy on economy, first and business class tickets for all international and domestic flights could raise **$123 billion per year**. If applied only to premium international flights, it could raise $17 billion per year. Under a coalition-of-the-willing format and excluding domestic flights, an aviation ticket levy could raise **$29 billion per year**. If applied only to premium flights, it could raise **$5 billion per year** (CE Delft, 2025).	The rates assumed are: Short/medium/long haul economy: €10/20/30 (equivalent to $12/24/36) Short/medium/long haul premium: €20/70/120 (equivalent to $24/84/144)
Aviation private jet levy	If adopted globally, a levy on all international and domestic flights by private jets could raise **$7–17 billion per year** (CE Delft, 2025).	The lower end of the estimate assumes a kerosene rate of €0.72, which is equivalent to existing kerosene rates in France. The higher end assumes a rate of €1.84 per litre, based on the difference in carbon intensity (per traveller) between commercial aviation and private aviation, conservatively assumed at a multiplier of 5. (Private jets are 5 times more polluting than commercial jet on a per passenger basis [T&E, 2021].)
Fossil fuel extraction levy	If adopted in a coalition-of-the-willing format, an oil extraction levy could raise **$85 billion per year** by 2035 (Santos et al., 2025).	This assumes an initial levy of $5 levy per embedded tonne of carbon in 2027 with a $5 annual increase.
Fossil fuel profits levy	If adopted globally, a 15% global minimum tax on the extractive sector would generate around **$20 billion per year** (Global Solidarity Taskforce, 2025).	Pillar Two of the OECD Framework sets a global minimum effective tax rate of 15%.

Financial transaction levy	If adopted globally, a 0.50% tax on equity transactions would raise **$105 billion per year**. A coalition-of-the-willing format would generate the following: among the G7, **$68 billion per year**; in the EU, **$12 billion per year.** A green financial transaction tax that links rates to environmental performance could raise **$163 billion a year** (Capelle-Blancard and Persaud, 2025).	A 0.5% tax is equivalent to the rate currently used in the UK.
Crypto-currency levy	A preliminary assessment indicates that "the revenue at stake worldwide is plausibly in the tens of billions of dollars, perhaps even, if cryptocurrencies were to perform strongly, in the high tens" (Baer et al., 2023).	

Note: Amounts in Euro were converted to US$ based the exchange rate on 8 August 2025 for ease of comparison.
Source: Compiled by the Global Solidarity Levies Task Force Secretariat for the authors.

Challenges

Global solidarity levies have gained momentum, already moving from an idea to initial implementation, but several political and technical obstacles must be addressed before they can deliver large-scale resources:

- **First, industry resistance presents a political economy challenge.** Some shipping and aviation companies remain concerned about competitiveness and cost pass-through, particularly at higher carbon prices and if levies are applied unevenly. Some governments have indicated their resistance to the IMO's proposed net zero framework, which included carbon pricing and in part led to the postponement of the IMO's decision to next year. Governments will need to design levy systems that preserve incentives for decarbonisation while addressing fears of market disadvantage by industries. Economic impacts can be minimised through carefully designed levies that are progressive, coordinated or focused on sectors with inelastic demand (such as premium flyers). Agreeing on levies on the fossil fuel industries will remain highly challenging despite their compelling rationale and strong public or citizen support, although past experience shows success with windfall profit taxes; making these permanent could offer one way forward. Similar pushback can be expected in financial sectors, despite FTTs being well established levies, and from cryptocurrency actors.
- **Second is the need for clear revenue-sharing principles.** Balancing domestic use of revenues with global solidarity will require principles that will build trust, a sense of fairness and ownership among stakeholders. In this regard, defining shared principles for revenue-sharing will entail defining objectives, such as support for loss and damage and building resilience, fair mechanisms to allocate funding support, and clear modalities to deliver support to recipients while countries receiving climate financing from such solidarity levies will need in turn to commit to climate action. This is articulated by Duflo (2025) as a path forward in developing a system to allocate the tax revenues voluntarily shared by countries to developing countries to support their climate action.

- **A third barrier is implementation and governance capacity.** Levying sectors such as shipping and aviation requires robust systems for collection, monitoring and enforcement. Without strong governance and transparent oversight, the credibility of solidarity levies could be undermined. Equally, countries and industries will demand clarity on how funds are used, requiring accountability frameworks that are not yet in place.
- **Fourth, while pioneering efforts can be catalytic, uneven application risks leakage and competitive distortions between countries, particularly in industries such as aviation where tax bases are mobile.** This underscores the importance of international coordination to eventually harmonise approaches.
- **Finally, some proposals depend on broader reforms of global tax governance.** These include the proposals for an international levy on ultra-high-net-worth individuals that was presented at the G20 (Zucman, 2024; G20 Brasil, 2025) or coordinated fossil fuel profit taxation. Such proposals require cooperation across jurisdictions and integration into ongoing discussions under the G20 and the UN Framework Convention on International Tax Cooperation. Without systemic reform, such levies will remain aspirational rather than implementable.

Expanding the scale and scope of debt swaps

Debt swaps are becoming more prevalent as a means to reduce debt burden and create fiscal space that can be used for climate, nature or development goals. They are particularly well suited to situations where carrying costs of existing debt are high. Most of the debt swaps undertaken over the past decade have focused on nature (see Box 5.5). These have tended to be bespoke, and typically complex to negotiate. They have also been criticised for generating limited savings. The two recent debt swaps undertaken by Barbados (with the prospect of a third) have highlighted the potential for debt swaps to support climate related goals.

To increase the size and quantity of debt swaps there is a need to bring in new guarantors, including non-traditional debt swap guarantors like private insurers and have swaps with multiple guarantors. The Inter-American Development Bank, which played a key role in Barbados's debt swaps, is pioneering improvements in the institutional architecture to implement and improve the effectiveness of debt swaps, including launching the Caribbean Multi-Guarantor Debt for Resilience Facility.

The Caribbean Multi-Guarantor Debt for Resilience Facility is an initiative to make this possible by streamlining and fast-tracking the coordination between multiple guarantors. In addition, the Facility will support the establishment of high-level standards on use of proceeds, monitoring and evaluation as well as the contribution to regional public goods aligned with resilience.

With the efforts now underway, debt swaps could become a more widely used instrument by indebted countries with climate and nature financing needs. We estimate that debt swaps could generate $5–10 billion in climate finance by 2035.

Box 5.5. Debt-for-nature swaps: promises and pitfalls

Debt-for-nature and blue swaps have regained prominence over the past decade as a way to link sovereign debt relief with environmental protection, particularly for advancing the *30×30* target under the Global Biodiversity Framework (to conserve 30% of the Earth's land and sea area by 2030). After early efforts in Seychelles (2015–2018), the market expanded with larger transactions in **Belize (2021)**, **Barbados (2022)**, **Gabon (2023)**, **Ecuador (2023)** and smaller bilateral swaps such as **Cabo Verde–Portugal (2023/2024)**. These deals have collectively converted billions in sovereign liabilities into long-term conservation commitments—most centred on marine protection—while several other countries (e.g., Kenya, Tanzania, Fiji, Sri Lanka) are exploring similar mechanisms.

Experience to date shows that while these swaps can generate meaningful conservation finance, they face significant design and governance challenges. Large transactions often rely on complex refinancing structures, costly guarantees and offshore trusts, meaning only a fraction of headline amounts reach conservation budgets (e.g., **Ecuador's US$1.6 billion swap in 2023 produced ~US$450 million**, Belize's US$580 million deal generated ~US$178 million in 2021) (The Nature Conservancy, 2022; White, 2023; Chandrasekhar and Quiroz, 2024). Their focus is typically narrow—primarily on oceans—and governance arrangements are frequently dominated by external intermediaries, with limited participation from national institutions, Indigenous Peoples and local communities. Moreover, swaps are negotiated country-by-country, depend on specific creditor mixes, and do not address underlying debt sustainability, limiting their scalability.

Innovative blended finance

Innovative blended finance mechanisms can play a pivotal role in closing the climate-finance gap by mobilising private investment for public goods and channelling resources to areas and countries where traditional finance is scarce. By combining concessional, public and philanthropic capital with private investment, such mechanisms can de-risk projects, lengthen time horizons, and create self-sustaining sources of funding for global priorities such as adaptation, resilience and nature conservation. We estimate that innovative blended finance could generate $10–20 billion in climate finance by 2035.

One of the most ambitious examples to date is Brazil's Tropical Forest Forever Facility (TFFF), proposed under its COP30 Presidency. The Facility seeks to establish a long-term, performance-based financing mechanism that rewards countries for conserving tropical forests and other globally critical ecosystems. It aims to mobilise around $125 billion in capital – roughly $100 billion from private investors and $25 billion from public and philanthropic sources – with investment returns generating $3–4 billion in annual payments to countries that maintain or expand forest cover. At least 20% of payments would flow directly to Indigenous Peoples and local communities, recognising their central role in protecting forest ecosystems.

Under the proposed design, payments to participating countries would be based on verified conservation outcomes, financed from returns on the facility's endowment-style investment fund. This would create a predictable and durable revenue stream for forest nations while rewarding measurable results. By aligning conservation incentives with investor returns, the TFFF offers a model for transforming forest protection into an investment-grade global public good, capable of attracting large-scale private capital at relatively low fiscal cost.

If implemented with integrity and transparency, the TFFF could become a cornerstone of the post-2025 climate-finance architecture, offering a replicable blueprint for other

priority areas such as adaptation, sustainable land and water management, and resilient infrastructure. Extending this approach beyond forests could allow countries to develop 'forever facilities' for ecosystems, resilience or clean-energy transitions: long-term, self-financing mechanisms that reward measurable progress towards shared global goals.

This approach could potentially be applied to other priority objectives that require highly concessional finance, such as aspects of adaptation and resilience, other dimensions of natural capital, and just transition.

Philanthropy

Private philanthropy can play an important catalytic role in supporting the $1.3 trillion goal, even though its absolute contribution will remain modest. Based on their resources and stated commitments to support the growth of climate finance, their contribution to the $1.3 trillion external finance goal could range from **$5–20 billion per year in 2035** (see Table 3.4).

Why philanthropy matters

Philanthropy can deliver what other forms of finance cannot: fast, flexible, risk-tolerant, and grant-based resources that do not add to debt burdens. This makes it especially valuable for adaptation, and loss and damage – areas where financial returns are diffuse, needs are urgent, and public goods such as early warning systems, health surveillance or resilient infrastructure rarely attract commercial capital.

Because it can take risks, philanthropy is well placed to pioneer innovation. It can fund pilots for new insurance models, community-led adaptation, or financial instruments that public and private investors may consider too uncertain. Once proven, these approaches can be scaled up with larger concessional and commercial flows. Philanthropy can also build the institutional and technical capacity that enables governments to absorb international finance effectively, while empowering civil society to shape and deliver solutions. And, as independent actors, philanthropies can convene governments, MDBs and investors to mobilise political will and unlock collective action.

Experience from other sectors shows the catalytic power of philanthropic capital. In global health, early contributions from the Gates Foundation helped create the Global Fund to Fight AIDS, TB and Malaria, which has since mobilised tens of billions in public finance, and supported the launch of Gavi, enabling vaccine rollouts in low-income countries. In education, philanthropic engagement helped shape the International Financing Facility for Education (IFFEd), where relatively small grants were designed to unlock multiples of MDB concessional lending. Similarly, philanthropy has financed high-risk R&D for neglected diseases, handing successful products to markets and public agencies once proven.

While philanthropic dollars are modest in scale, when used strategically they can change the trajectory of entire sectors. In adaptation and loss and damage – where urgent needs are underfunded and returns are hard to monetise – philanthropy has the potential to be transformative.

The current landscape

Philanthropic giving to climate action has grown rapidly over the past decade but remains small relative to need. In 2023, philanthropic funders – including foundations and individual donors – contributed an estimated $9.3–15.8 billion to climate change mitigation efforts, about a 20% increase from 2022 (Esmaeili et al., 2024). While most of this funding focused on mitigation – particularly renewable energy and energy efficiency, where results are easier to measure and communicate – there is growing momentum for

adaptation and resilience, which received at least $600 million in foundation funding in 2023 (ibid.).

Encouragingly, however, adaptation and loss and damage are starting to gain attention. At COP28, 21 major foundations – including the Rockefeller Foundation, Aga Khan Development Network, Temasek Trust and Shockwave Foundation – issued a joint call for greater action on adaptation. The Adaptation and Resilience Funders Collaborative (ARC) has since expanded to more than 60 foundations working to coordinate strategies, share learning and pool resources (Climateworks Foundation, 2024). Similarly, the World Economic Forum's Giving to Amplify Earth Action (GAEA) initiative seeks to scale up public–private–philanthropic partnerships to multiply the impact of grants, including for adaptation and nature.

Philanthropies are also experimenting with new ways of working with multilateral institutions. Some are exploring pooled capital platforms with MDBs that can provide concessional co-finance for large-scale adaptation projects. Others are supporting the operationalisation of the Fund for Responding to Loss and Damage (FRLD), which explicitly foresees non-donor contributions. A few are backing sovereign disaster risk pools, such as through premium support for the Caribbean Catastrophic Risk Insurance Facility (CCRIF), showing how philanthropy can underwrite resilience at the national scale.

However, philanthropic giving remains fragmented and concentrated among a handful of large actors, with few foundations systematically investing in climate resilience. The lack of agreed metrics for resilience and loss and damage outcomes makes it difficult to demonstrate results and scale up funding. Without a step change in ambition and coordination, philanthropic finance will remain a niche contribution rather than a transformative force.

Yet with the right reforms, philanthropy could evolve by 2035 into a mainstream, catalytic pillar of climate finance, mobilising tens of billions annually for adaptation and loss and damage, leveraging MDBs, insurance pools and country platforms. At this scale, it could not only fill critical grant gaps but also help shape global standards for resilience measurement, build long-term capacity in national systems, and crowd in multiples of public and private finance.

In addition to traditional philanthropic foundations, the corporate sector can be an important potential source of concessional finance for climate action. In India, for example, the requirement to set aside 2% of corporate profits for corporate social responsibility (CSR) is being used for supporting climate action, although in a fragmented manner. Altérra, the $30 billion catalytic climate finance vehicle launched by the UAE at COP28, has set aside $5 billion to support blended structures towards the goal of mobilising $250 billion climate finance in EMDEs. The potential for tapping corporate philanthropy is greatest in Asia. Asia is home to the world's greatest number of billionaires, but the level of corporate giving is much lower than in the US. Asian philanthropy can become a strategic pillar for global problem-solving, with outsized influence on climate security, economic resilience and the future of development impact (Seow and Pande, 2025). By deploying capital as catalytic risk, rather than cautious charity, Asia's wealth-holders can de-risk and accelerate the investments needed for the green transition and development. The Asian Platform for Investment into Resilient Economies (ASPIRE), launched in June 2025, can help advance this agenda by bringing together policymakers, philanthropy, DFIs and private investors in a 'coalition of the willing'.

Key challenges

Despite its potential, philanthropy still faces structural barriers that limit its impact:

- **Fragmentation and concentration.** Climate giving is dominated by a small number of large foundations, creating dependence on a narrow base of funders. Most regions, especially in Africa and SIDs, receive minimal support for resilience, leaving major gaps in geographical coverage and systemic impact.
- **Weak alignment with country priorities.** Many philanthropic projects remain small-scale, donor-driven or disconnected from national climate strategies, NDCs, NAPs and NBSAPs. This risks duplication, undermines ownership and makes it harder to channel resources through country platforms, which could crowd in larger flows.
- **Measurement and accountability gaps.** Agreed metrics for resilience outcomes, avoided losses, and loss and damage impacts are still emerging, making it difficult currently to compare results or demonstrate value for money. Without credible and widely accepted frameworks, philanthropies hesitate to increase their commitments, and governments struggle to integrate philanthropic contributions into national financing strategies.
- **Limited capacity to engage at scale.** Few philanthropic organisations possess the technical or institutional capacity to design and manage large-scale, multi-country climate programmes. Building intermediary mechanisms – such as pooled funds or national climate foundations – could help aggregate smaller contributions and reduce transaction costs.
- **Affordability barriers in risk transfer.** Disaster insurance is often too expensive for climate-vulnerable countries to afford on their own. Without concessional support, including from philanthropy, these tools cannot grow. Pooled schemes such as the Caribbean Catastrophic Risk Insurance Facility (CCRIF) and the African Risk Capacity (ARC) show how insurance can protect countries against shocks, but they rely on ongoing premium subsidies to stay affordable.

Strategic priorities and next steps on innovative finance options

Innovative sources of finance differ in scale, governance and political feasibility but they also share common requirements to succeed. Cross-cutting priorities focus on how these mechanisms can evolve from pilot initiatives into durable features of the global climate-finance architecture. They aim not only to mobilise additional resources, but also to leverage and multiply their impact – providing concessional capital for blended finance, supporting just-transition investments, and strengthening capacity and resilience in EMDEs. Together, these priorities emphasise scale, sustainability, coalition-building, equity and governance, with philanthropy playing a catalytic role across each dimension. Alongside shared cross-cutting actions, each innovative source requires its own agenda for reform and scaling. Together, they highlight the practical steps needed over the next three to five years to turn potential into real flows for climate action in EMDEs.

Table 5.9. Strategic priorities and action agenda to leverage each innovative source of finance

SDRs
• **Broaden the pool of unused SDRs for rechannelling** – including through MDBs – and explore new issuances in times of systemic shocks. • **Secure long-term replenishment and reform reserve-asset rules** to reduce costs, ensuring SDRs become a permanent feature of the global financial architecture. • **Pioneer countries rechannelling SDRs through MDBs** to persuade reluctant central banks. • **Direct rechannelled resources primarily to the low- and middle-income countries** most exposed to shocks. • **The IMF and central banks must modernise frameworks** for efficient, transparent SDR rechannelling; MDBs should continue to expand their use in lending. • **The IMF should work with central banks to modernise reserve-asset rules,** lowering the liquidity requirements that currently reduce lending capacity. • **G20 members and SDR holders should expand rechannelling options to MDBs,** providing new hybrid capital instruments to increase concessional lending. • **The G20 and IMF should begin discussions on a new SDR issuance** to prepare for future systemic shocks, including climate-related ones.
Global solidarity levies
• **Broaden the coalition of the willing to implement shipping and premium aviation levies and broaden the menu of solidarity taxes** – on aviation fuel, fossil fuels, financial services and high-net-worth individuals. • **Establish rules-based frameworks for revenue collection and allocation** so that funds reliably reach developing countries over a period of decades. • **Support industry-level coordination in shipping and targeted coalitions in aviation levies** to prove feasibility while global negotiations progress. • **Design equitable revenue-sharing that supports adaptation, loss and damage and just transition**, while allowing poorer levy-applying countries to retain some revenues for domestic use. • **Global task forces and multilateral institutions should provide technical design, oversight and transparent revenue tracking**. • **The Premium Flyers Solidarity Coalition should move forward with implementing solidarity levies on premium flyers to improve their contribution to a fair climate transition and resilience.** More governments should look to join this first coalition of the willing. • **The GSLTF and a broader coalition of countries should work towards building support for the IMO reforms** leading to its decision next year. • **The GSLTF Secretariat should develop principles** for revenue sharing, prioritising allocations for loss and damage, adaptation and a just transition, and facilitate

consensus among coalitions of the willing, building on commitments around revenue use by the Premium Flyers Solidarity Coalition.

- **The GSLTF should develop additional proposals for global solidarity levies**, and assess their impacts and feasibility, which will form the basis for further discussions.
- **The UN and G20 should provide forums for building international consensus** and eventually integrating solidarity levies into global tax cooperation frameworks.

Debt swaps

- **Expand the scale and scope of debt swaps by identifying cases where debt swaps can both reduce debt burdens and support priority investments.**
- **Fast-track implementation and improve effectiveness through platforms** between multiple guarantors, high level standards on use of proceeds, and monitoring and evaluation.

Philanthropy

- **Move beyond fragmented project-level grants towards pooled instruments and blended structures** – from MDB adaptation windows to disaster-risk pools – where philanthropic risk-tolerant capital can unlock multiples of public and private investment.
- **Shift from short-term, ad hoc funding to long-term, programmatic commitments** that build institutional capacity, support country platforms, and finance project preparation, ensuring resilience investments can be scaled up and sustained.
- **Increase funding for under-resourced priorities, particularly initiatives led by local actors and organisations in the Global South, and programmes that address the different climate risks and constraints faced by women, men and marginalised groups.** These approaches strengthen frontline resilience and ensure resources reach those most exposed.
- **Support common metrics, independent monitoring, and the technical facilities and secretariats** that enable larger funders to operate effectively and align finance with national priorities.
- **Invest in common metrics and independent monitoring for adaptation and loss and damage finance, and support country platforms so grants align with national priorities.** Philanthropy can also fund secretariats and technical facilities that larger funders rely on but may hesitate to finance.
- **Use convening power to shape agendas and unlock political momentum.** Through coalitions such as the Adaptation and Resilience Funders Collaborative or the World Economic Forum's GAEA (Giving to Amplify Earth Action), foundations can pilot innovative approaches, set new standards, and bring hesitant public and private actors on board.
- **Use grants to lower the cost of disaster insurance** – through premium support, preparedness investments or early-warning systems – within regional facilities such as CCRIF and ARC.

5.5. Aligning all finance with sustainability and improving the international regulatory framework

This section examines how to make all financial flows consistent with the goals of the Paris Agreement by advancing both alignment under Article 2.1(c) and reform of the international regulatory framework. It begins by clarifying the mandate of Article 2.1(c), its complementarity with Articles 2.1(a), 2.1(b) and 9, and its implications for developed and developing countries. The first part sets out how finance must shift from high-carbon and climate-vulnerable activities towards low-emission, climate-resilient development, and explores the scope, challenges and priority actions needed to achieve this shift. The section then turns to the international regulatory framework, recognising that traditional prudential rules, credit rating methodologies and disclosure regimes often discourage climate investment, especially in EMDEs. Finally, it outlines the reforms needed to address these barriers: strengthening MDBs' risk-sharing role, adapting banking and insurance regulation to integrate climate risks, mobilising institutional investors, harmonising taxonomies and disclosure standards, and revising credit rating practices to better reflect climate resilience.

Delivering on Article 2.1(c)

The systemic mandate of Article 2.1(c)

Article 2.1(c) of the Paris Agreement establishes the systemic finance goal: ensuring that all financial flows are consistent with low-emission, climate-resilient development. Unlike Article 9, which focuses on the provision of climate finance to support developing countries, Article 2.1(c) involves the entire global financial system (CAN, 2023). Its effective implementation is essential to achieving the temperature and resilience goals of the Paris Agreement, by shifting trillions of dollars away from high-carbon or vulnerable activities and towards clean and resilient investment (NGFS, 2023b).

To achieve Article 2.1(c), it is necessary to address both the alignment and misalignment of finance flows (UNCTAD, 2023). Investment must shift decisively away from activities that increase emissions or lock in vulnerability, such as coal power, inefficient infrastructure or poorly designed land-use systems, and towards those that enable clean growth and resilience. That means, for example, shifting finance from high-carbon to low-carbon industries; from flood-prone to resilient infrastructure; and from depleting agricultural models to sustainable and resilient ones.

Article 2.1(c) is the connective tissue between finance and the Paris Agreement's other objectives. It reinforces Article 2.1(a), the temperature goal, by preventing finance flows from contributing to high-emission development; and Article 2.1(b), the adaptation goal, by directing flows towards adaptation and climate resilience. It also relates directly to Article 4, on long-term strategies and NDCs, by aligning capital flows with those roadmaps. Lastly, the transparency provisions under Article 13 provide the accountability framework for tracking progress on aligning financial flows.

Complementarity with commitments under Article 9 is critical. The first Global Stocktake suggests that Article 2.1(c) "is complementary to, and no substitute for, Article 9", but that further efforts are needed to understand this article and its complementarity (Decision 1/CMA.5). This means that delivering the New Collective Quantified Goal (NCQG) on climate finance is not optional: it is a necessary condition for making alignment feasible in countries with limited fiscal space and high vulnerability (Mbewe, 2025). Dedicated climate finance enables EMDEs to pursue clean and resilient development.

Achieving Article 2.1(c) is therefore both a global imperative and a development opportunity. EMDEs will account for the majority of investment in infrastructure and energy systems in the coming decades but face the highest costs of capital and greatest vulnerability to climate risks (SCF, 2024). Misaligned flows – for example, to new coal assets or poorly planned urban growth – would lock countries into costly and fragile pathways. By contrast, aligned finance can reduce energy import bills, create jobs and build resilience to shocks (Alayza, 2024).

Scope and challenges

Implementing and monitoring Article 2.1(c) is complicated by unresolved questions about its scope and the practical challenges of putting it into operation (UNFCCC, 2024b). While there is agreement on some general aspects, and its ambition is clear – to align all finance flows with climate-resilient, low-emission development – no common guidance exists on what 'consistency' with the Paris Agreement goals entails, and this absence limits implementation (UNFCCC, 2024c; Feyertag et al., 2023).

The operational meaning of Article 2.1(c) remains unsettled. Disagreements relate, for example, to the implementation of certain principles including 'common but differentiated responsibilities', and thus the operational role of developed and developing countries, and public and private actors (Mbewe, 2025; Robertson et al., 2023; UNFCCC, 2024c). These differences shape how countries perceive their responsibilities, the specific role of different actors, and the implications for access to finance. The way issues such as these are resolved will determine whether alignment becomes a lever for mobilising investment or an additional barrier for EMDEs (UNFCCC, 2023a).

Agreeing on how to monitor the implementation of Article 2.1(c) and improving climate finance data for this purpose presents additional challenges. The current financial and real-economy information and data infrastructure is insufficient to enable evaluation of the collective efforts towards Article 2.1(c) (UNFCCC, 2024c; OECD, 2019). This gap is particularly pronounced when it comes to monitoring the adequacy of finance in relation to climate-resilient pathways. Reasons include disclosures on adaptation and resilience being relatively scarce (UNFCCC, 2024b; 2024c).

Still, Parties have begun to converge on certain characteristics, including that Article 2.1(c) applies to mitigation and adaptation, to developed and developing countries, and to both public and private finance flows, at the international and domestic levels (though disagreement on their operational roles persists). Efforts to implement Article 2.1(c) are also seen as closely linked with national sustainable development strategies, requiring policies and investment approaches tailored to country contexts (UNFCCC, 2023a; 2023b; C2ES, 2025). Nonetheless, there is an inherent tension between a collective pursuit of alignment and national or actor-based approaches (SCF, 2024). This points to the value of nationally developed but internationally harmonised frameworks – such as green taxonomies – that can link national priorities to global standards (UNFCCC, 2024b).

International interoperability remains essential, particularly for cross-border capital flows. However, many EMDEs, especially LDCs and SIDs, lack the technical capacity and resources to develop alignment frameworks. Without support, they risk being further marginalised (SCF, 2024). Building these capacities – through assistance in developing taxonomies, disclosure systems and resilience metrics – will be crucial to ensure that alignment becomes a pathway to scaling up access, not an additional barrier (UNFCCC, 2024c). Support from the broader international financial sector is also essential to achieving 2.1(c). Illustrating this, the great majority (more than 90%) of the EMDE investment need for clean energy finance are in nations that have underdeveloped capital markets (IEA, 2024d; Circle of Finance Ministers, 2025).

For EMDEs, debates over scope intersect with concerns about access to finance. Many fear that new requirements under Article 2.1(c) – such as climate risk disclosure – could heighten perceptions of vulnerability, lower sovereign and corporate credit ratings, and ultimately raise borrowing costs. Countries with low-level adaptation capacities and high climate vulnerability face particular risks. Some countries also worry that the Article could shift political focus away from Article 9 obligations, reducing international financial support in favour of expectations that developing countries align their domestic flows (UNFCCC, 2024b).

Underlying these debates is a fundamental concern: Article 2.1(c) must not create new obstacles for EMDEs but instead dismantle existing ones. Successful implementation requires safeguards against negative feedback loops between climate vulnerability and financial risk, flexibility in transition timelines to reflect differing starting points, and a clear recognition that Article 2.1(c) complements rather than substitutes for the international climate finance commitments enshrined in Article 9 (Decision 1/CMA.5).

Addressing these challenges is essential to ensure that Article 2.1(c) becomes a catalyst for scaling up finance in EMDEs rather than a constraint and it underscores the need for clear strategies and priority actions to translate ambition into practice.

Strategic priorities for delivering on Article 2.1(c)

Delivering Article 2.1(c) requires a broad set of reforms across the international and domestic financial systems. These reforms must reduce the cost of capital for EMDEs, scale up private finance through blended structures and align regulatory frameworks with climate goals (NGFS, 2023b; SCF, 2024). Internationally, concessional and public finance must be deployed more catalytically to de-risk investment, while domestically, governments must embed climate considerations into laws, policies and budgets to provide clear signals to markets (UNFCCC, 2023b).

COP30 provides an opportunity to set a clear forward agenda for Article 2.1(c). Parties will need to clarify its scope, determine whether and how to extend the Sharm el-Sheikh Dialogue, and establish a process for monitoring progress (C2ES, 2025). A strong outcome could call for timelines to phase out non-aligned flows, including fossil fuel subsidies that do not serve energy access or just transition goals, while acknowledging that developed countries must lead (Jones et al., 2025). Such clarity will be vital to translate Article 2.1(c) from principle to practice.

Table 5.10. Strategic priorities and action agenda for delivering on Article 2.1(c)

National governments should create predictable investment environments
• **Countries must set out clear, comprehensive and actionable whole-of-economy transition strategies** that demonstrate how capital will be allocated to clean and resilient growth. Detailed and investable NDCs, sectoral decarbonisation pathways and adaptation plans can serve as the foundation for this direction, especially when integrated into development strategies and endorsed at the highest political level (PRI, 2024).
• **Leverage instruments to help mainstream these commitments,** such as climate budget tagging, green public procurement, long-term low-emission development strategies, and green taxonomies. Without such predictability, markets will continue to misprice risk and undervalue Paris-aligned investment opportunities.

Domestic policy frameworks must incorporate multilateral objectives into market incentives

- **Embed multilateral climate commitments into domestic law and regulation,** using tools such as carbon pricing, emissions trading schemes, phasing out fossil fuel subsidies, efficiency standards and targeted fiscal incentives. Externalities, risks and impacts are often excluded from current investment decisions, resulting in widespread mispricing. Creating adequate domestic incentives is crucial for private finance actors to incorporate Paris objectives into their calculations of asset profitability (UNFCCC, 2023a; Aviva, 2025).

Central banks and supervisors should help embed climate risks into financial systems

- **Integrate climate considerations into monetary frameworks, portfolio management and prudential supervision.** By recognising, assessing and addressing climate-related risks, supervisors can drive financial institutions to reflect these realities in valuations and capital allocation (NGFS, 2023b).

Financial institutions and investors must accelerate alignment of portfolios with the Paris goals

- **Strengthen existing initiatives to ensure that adaptation and resilience investments are not neglected.** Many financial institutions and investors are already engaged in initiatives to accelerate low-carbon and resilient investments, such as GFANZ, the Principles for Responsible Investment or national disclosure requirements like those of the Task Force on Climate-Related Finance Disclosures (TCFD). Private actors tend to focus on mitigation, while displacing adaptation and resilience, a gap that is increasingly being acknowledged (SCF, 2024).
- **MDBs and DFIs should use their balance sheets** to crowd in private finance, expand guarantees and risk-sharing instruments, and set standards for alignment through their own lending policies.

Implement robust monitoring frameworks to track whether financial flows are becoming consistent with the Paris goals

- **Governments and supervisors should develop harmonised taxonomies and disclosure standards.** A balance must be struck between context-specific considerations and international interoperability (UNFCCC, 2024c).
- **International bodies should work towards interoperable methodologies for assessing alignment.** Building climate data infrastructure – particularly on resilience – is a priority, as current information remains fragmented and mitigation-centric. Without such systems, it will be difficult to hold actors accountable or to demonstrate progress (UNFCCC, 2024d; OECD, 2019).

Improving the international regulatory framework

Global financial regulations designed primarily to ensure financial stability shape the cost and direction of capital but current frameworks often unduly raise financing costs for EMDEs and discourage climate investment. Traditional prudential rules, credit ratings and disclosure regimes were not designed for the realities of climate risk, and without reform, they risk locking trillions into carbon-intensive and climate-exposed

capital. Aligning regulations with the Paris Agreement is therefore critical to mobilise capital for low-emission, climate-resilient development while safeguarding financial stability. The issues on prudential regulation are briefly covered in this subsection but treated in depth in the Circle of Finance Ministers (2025) report.

This section sets out the main constraints and priority areas for reform to make the international regulatory framework consistent with climate objectives.

Aligning regulations with the Paris Agreement goals

Achieving the Paris Agreement requires not only scaling up climate finance but also reshaping the rules that govern global finance. Current international regulatory frameworks – such as prudential standards, sovereign risk assessments and credit rating methodologies – were not designed with climate change in mind. The Basel III rules, for example, tend to assign higher risk weights to EMDE exposures, relative to advanced economies, and sovereign credit rating methodologies tend to embed climate vulnerability in ways that amplify spreads and discourage longer-term exposures but do not value resilience. These practices raise the cost of capital for EMDEs, deterring long-term investment in clean infrastructure and resilience. As a result, they often discourage flows to the very countries where investment is most needed. Further, if unreformed, new disclosure requirements could even have perverse effects, increasing borrowing costs for climate-vulnerable countries and delaying lending for adaptation.

Regulatory reform is therefore central to delivering on Article 2.1(c). Aligning all financial flows with low-emission, climate-resilient development requires systemic changes in how risks are recognised, how incentives are structured and how resilience is valued (Bolton et al., 2020). This means recognising MDB guarantees and callable capital in prudential models, adjusting capital requirements to reflect long-term climate risks, differentiating risk treatment among EMDEs, and integrating resilience and transition benefits into credit ratings. Without such reforms, trillions of dollars will remain locked into carbon-intensive or risk-averse investment paths.

Climate-consistent regulation is also essential for financial stability. The financial system both shapes and is shaped by climate change. Physical risks from disasters and transition risks from policy shifts interact and can trigger system-wide instability. Unless these risks are systematically incorporated into supervisory practices, portfolios will remain exposed to shocks, undermining the stability mandate of central banks (NGFS, 2023b; Trust et al., 2023). Prudential reforms should extend beyond banking to cover non-bank institutional investors – pension funds, insurers and sovereign wealth funds – which control the largest pools of long-term capital but are constrained by solvency and fiduciary duty frameworks that discourage investment in EMDEs.

Reform is about seizing opportunities in addition to avoiding risks. Effective risk assessment can act as a 'shadow carbon price', making carbon-intensive assets less attractive while driving flows towards clean and resilient assets (Bolton et al., 2020). By mobilising capital for renewables, resilient infrastructure and adaptation, climate-aligned regulation can create a virtuous cycle of growth, stability and sustainability. However, without appropriate action, including providing better-quality information, markets may continue allocating capital inefficiently: over-investing in assets that will become stranded while under-investing in the assets needed for the transition.

In short, the global financial architecture must be redesigned to integrate climate risks, recognise resilience as an asset and correct misaligned incentives. Without systemic regulatory and supervisory reform, the Paris Agreement goals cannot be met: EMDEs will continue to face prohibitively high financing costs, while global markets will

misallocate capital. With reform, the financial system can become a driver of the transition, enabling capital to flow at scale into the clean and resilient development pathways needed to achieve Article 2.1(c) (Pereira da Silva, 2025).

Key challenges and areas for reform

EMDEs face recurrent constraints that magnify financing costs and reduce access. Risk is frequently mispriced: political fragility, FX volatility and climate vulnerability are assumed to raise the risk of default, but MDB guarantees and risk-sharing instruments are under-recognised in risk models. Basel III rules assign higher weights to EMDE exposures, while credit ratings embed vulnerabilities without accounting for resilience investments (Pereira da Silva, 2025). FX volatility remains one of the most significant barriers, as most projects are financed in hard currency but earn local revenues.[23] Long-tenor hedging is costly and scarce, while regulatory fragmentation across taxonomies and disclosure regimes increases compliance burdens (SCF, 2024). Structural divides persist: investment-grade middle-income countries face volatility and shallow 'greeniums', while speculative-grade and low-income countries remain shut out of markets.

Prudential regulation must integrate climate considerations while preserving financial stability. Climate risk should be integrated more explicitly into Basel III, moving beyond treating it only as a driver of traditional risks (credit, market, liquidity, operational). Basel III's core safeguards must be maintained, but climate risks should be embedded in capital charges, liquidity rules and supervisory practices. Differentiating risk weights for MDB-backed green infrastructure, making high-quality green bonds eligible as collateral, and recognising MDB guarantees in credit conversion factors could all improve incentives for needed clean investments in EMDEs. Forward-looking climate stress tests aligned with the scenarios of the Network for Greening the Financial System (NGFS) should be mainstreamed into supervisory processes: this would improve risk-pricing and build confidence in green investment (NGFS, 2020; Circle of Finance Ministers, 2025). Convergence of taxonomies and disclosure standards is also vital to reduce compliance costs and regulatory fragmentation (IMF, 2023d; SCF, 2024).

The reforms discussed cannot be solely focused on banks. Prudential regulation focuses on bank capital and supervision, while disclosure and taxonomy reforms are framed mainly through the lens of financial institutions more broadly, with mechanisms drawn from bank regulatory architecture. But mobilising non-bank institutional investors is essential. Sovereign wealth funds, public pension funds, large asset managers and insurers hold the bulk of long-term capital that could flow into climate investment and operate under different regulatory regimes. Banks and the Basel reforms will help as originators and arrangers, but institutional investors would ultimately be the end-buyers.

Institutional investors represent the largest untapped source of long-term capital. Pension funds, insurers, sovereign wealth funds and asset managers collectively manage more than $200 trillion, yet allocate very little to EMDE climate infrastructure.[24] Current solvency and fiduciary duty frameworks prioritise short-term risk aversion and investment-grade assets, limiting flows. Reforms should broaden fiduciary duty definitions to include climate risk, adjust solvency rules to allow higher exposure to infrastructure and EMDE assets, and recognise MDB guarantees within these frameworks. Recognition of MDB guarantees by regulators and rating agencies is key to unlocking MDBs' catalytic potential.

[23] FX volatility and currency risk require systemic and project-level solutions. For example, at the systemic level, expanded central bank swap lines and regional reserve pooling could stabilise currencies against climate shocks. Regarding FX risk, see Section 5.1 on unlocking private capital for climate and nature in EMDEs.

[24] Sovereign Wealth Funds (~$11 trillion AUM) (WEF, 2023), pension funds (~$62 trillion, OECD countries) (OECD, 2025f), and global asset managers (~$128 trillion) (BCG, 2025).

Insurance and catastrophe bond markets should also be expanded to support adaptation finance.

Harmonising data, taxonomies and disclosures is foundational. Disclosures are essential for actors to access high-quality information on companies' present and future activities, while taxonomies are critical in interpreting that information, assessing and pricing financial risk in correspondence. However, today's 'alphabet soup' of standards increases costs and uncertainty, decreasing market confidence and obstructing international climate finance mobilisation. Different taxonomies cover diverging climate action and environmental dimensions (mitigation, adaptation, resilience, biodiversity), social aspects (e.g. inequality), and economic activities (reflecting national productive structures and contexts). And they are underpinned by diverging transition timelines (Circle of Finance Ministers, 2025). Interoperability, not uniformity, should be the goal – respecting national contexts while reducing frictions in cross-border finance. Convergence around the International Sustainability Standards Board (ISSB) and TCFD frameworks, alongside mutual recognition of taxonomies (e.g. EU–ASEAN), is essential. Public platforms and AI-driven tools can improve data comparability, while international support must help EMDEs build reporting capacity to avoid penalising their issuers. For further details on taxonomies see Section 5.F of the Circle of Finance Ministers (2025) report.

The strategic value of both taxonomies and disclosure tools should be recognised and leveraged. The disclosure of comprehensive and detailed transition plans is crucial in aligning all actors and their capital with the Paris Agreement objectives. Corporate transition plans should be used by financial institutions to understand how climate risks and opportunities are being considered, informing their capital allocation decisions. And corporate and financial transition plans should be impacted and impact national sustainable development plans and their associated regulatory frameworks. Similarly, taxonomies are not a tool solely for the financial sector: they can be incorporated into broader policy frameworks and financial mechanisms, such as fiscal incentives and green guarantees, contributing to aligning all finance flows with the Paris goals (Circle of Finance Ministers, 2025).

Conventional credit rating methodologies need fundamental reform. Credit ratings agencies have a significant effect on EMDE financing costs, as their methodologies influence sovereign borrowing costs and private investment flows. Still, they often penalise climate vulnerability, without valuing resilience investments or the impact of de-risking instruments. Reforms should explicitly integrate physical and transition risks into sovereign ratings; recognise MDB credit enhancements in rating methodologies, so that they reflect the true de-risking provided by MDBs; and develop complementary sustainability benchmarks, alongside traditional credit metrics, to evaluate the climate and sustainability performance of countries and projects. Updating IOSCO's Code of Conduct for Credit Ratings Agencies (CRAs) and IMF–World Bank Debt Sustainability Analysis tools to reflect climate risk would be an important step. Further, credit rating methodologies should be made more transparent, and data sharing initiatives (such as the Global Emerging Markets Risk Database) should be pursued to improve EMDEs' project performance data, reducing the gap between EMDEs perceived and real risk (see Section 5.1 and Circle of Finance Ministers, 2025). At the same time, EMDEs should improve their investment climate and macroeconomic conditions, reducing investors' risk premium.

Strategic priorities for improving the international regulatory framework

Reforming the international regulatory framework is indispensable to making all finance flows climate-consistent and this section outlines the key action areas to deliver such a shift. Current rules raise financing costs for EMDEs, discourage long-term

climate investment, and fail to recognise the risk-reducing role of resilience or the credit-enhancing effect of MDB guarantees. Without systemic reform, EMDEs will remain locked into high costs and limited access, while trillions of dollars continue to flow into misaligned activities. With reform, the financial system can become a driver of clean and resilient growth.

Systemic reform would reshape the financial architecture to mobilise capital where it is most needed. It would reduce structural barriers for EMDEs, embed climate risks into decision-making, and unlock the long-term capital required for low-carbon, climate-resilient development. Without reform, climate finance will remain skewed towards advanced economies; with reform, the financial system can become a cornerstone of the Paris-aligned transition.

Table 5.11. Strategic priorities and action agenda to improve the international regulatory framework

Integrate climate risks into prudential regulation
• **Preserve Basel III safeguards and systematically embed climate considerations into capital requirements, liquidity rules and supervisory practices.** Reassess risk weights for MDB-backed infrastructure projects and recognise high-quality green bonds as eligible collateral. Liquidity rules (Liquidity Coverage Ratio [LCR] and Net Stable Funding Ration [NSFR]) should treat climate-aligned long-term lending more favourably when backed by stable capital.
• **Recognise MDB guarantees in capital conversion factors** to allow banks to reduce charges on de-risked assets.
• **Supervisors should mainstream forward-looking climate stress tests**, aligned with NGFS scenarios, into prudential oversight.
Unlock institutional investors and reform non-bank rules
• **Broaden fiduciary duty definitions with reforms to incorporate climate risk,** adjust solvency and portfolio rules to permit greater exposure to infrastructure and EMDE green assets, and recognise MDB risk-sharing in solvency frameworks.
• **Expand insurance and catastrophe bond markets** to scale up adaptation finance. Central banks could anchor green markets by allocating part of their reserves to pooled investment vehicles.
• **Improve coordination with the International Organization of Securities Commissions (IOSCO), the International Association of Insurance Supervisors (IAIS), OECD and sovereign wealth fund networks** to harmonise standards and reduce fragmentation.
Harmonise climate data, taxonomies and disclosure standards
• **Converge around ISSB and TCFD disclosure frameworks, and mutually recognise taxonomies (e.g. EU–ASEAN) to reduce friction.** Interoperability rather than uniformity should be the goal, allowing national contexts to be respected while enabling international flows.
• **Leverage public data platforms and AI-enabled tools** to improve transparency and comparability.
• **Provide capacity support for EMDEs** to ensure they are not penalised.

Reform credit rating methodologies to reflect climate and resilience

- **Integrate explicitly both physical and transition risks in methodologies.**
- **Recognise the credit-enhancing role of MDB guarantees,** preferred creditor status and policy-based lending.
- **Supplement traditional ratings with complementary sustainability benchmarks,** rewarding countries that adopt credible decarbonisation and resilience strategies.
- **Update IOSCO's Code of Conduct for CRAs and IMF–World Bank debt sustainability tools** to institutionalise these reforms.
- **EMDEs must strengthen investment climates and clarify transition pathways** to lower risk premiums.

Advance international coordination and inclusive governance

- **Fiscal authorities and regulators should work with the Basel Committee on Banking Supervision (BCBS), Financial Stability Board (FSB), Network for Greening the Financial System (NGFS), IMF and World Bank** to integrate climate change objectives into prudential frameworks.
- **MDBs and the Finance in Common network should ensure reforms cascade into EMDE contexts.**
- **Coalitions of the willing should pilot reforms and set precedents where consensus within global forums becomes blocked.** Inclusiveness is critical here: EMDEs must have a full voice in shaping the rules that affect their financing costs.

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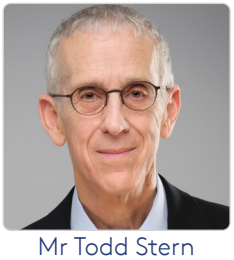
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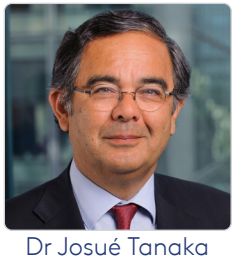
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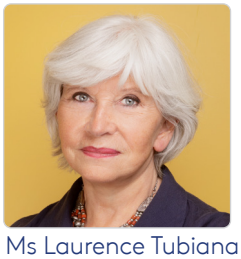
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