



G20

SOUTH AFRICA 2025



Solidarity

Equality

Sustainability

2025 G20 Presidency and SFWG Co-chairs Sustainable Finance Report



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Abbreviations

AF	Adaptation Fund
ADB	Asian Development Bank
AfDB	African Development Bank
CAD Trust	Climate Action Data Trust
CDOP	Carbon Data Open Protocol
CDSC	Climate Data Steering Committee
CIF	Climate Investment Funds
COP29	29th Conference of the Parties to the UNFCCC
CPI	Climate Policy Initiative
CRA	Credit Rating Agency
DFI	Development Finance Institution
EFRAG	European Financial Reporting Advisory Group
EIB	European Investment Bank
EMDEs	Emerging Markets and Developing Economies
ESG	environmental, social, and governance
FCBD	Finance and Central Bank Deputies
FiCS	Finance in Common
FWG	Framework Working Group
G20	Group of Twenty
GCF	Green Climate Fund
GEF	Global Environment Facility
GEMs	Global Emerging Markets Risk Database Consortium
GHG	greenhouse gas
IAIS	International Association of Insurance Supervisors
ICVCM	Integrity Council for the Voluntary Carbon Market
IFRS	International Financial Reporting Standards
IHLEG	Independent High-Level Expert Group
IO	international organisation
ISO	International Organization for Standardization

ISSB	International Sustainability Standards Board
LTS	long-term strategy
MDB	multilateral development bank
NAP	National Adaptation Plans
NbS	nature-based solutions
NatCat	natural catastrophe
NDB	national development bank
NDC	nationally determined contribution
NGFS	Network for Greening the Financial System
OECD	Organisation for Economic Co-operation and Development
PACM	Paris Agreement Crediting Mechanism
PDB	public development bank
PPIP	public-private insurance programme
Roadmap	G20 Sustainable Finance Roadmap
SDGs	Sustainable Development Goals
SME	small- and medium-sized enterprise
SFWG	Sustainable Finance Working Group
TAAP	Technical Assistance Action Plan
TNFD	Taskforce on Nature-related Financial Disclosures
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
VCEF	vertical climate and environmental fund
VCM	voluntary carbon market
WBG	World Bank Group

Introduction

Under the theme of “Solidarity, Equality, and Sustainability”, South Africa’s 2025 Group of Twenty (G20) Presidency has placed inclusive and sustainable development, climate resilience, and financial inclusion at the heart of the global economic agenda. Guided by the African philosophy of Ubuntu – “I am because we are” – the Presidency calls for collective action to further foster the conditions for strong, sustainable, balanced, and inclusive global growth.

In this spirit, the 2025 agenda for the G20 Sustainable Finance Working Group (SFWG), co-chaired by the People’s Bank of China and the Italian Ministry of Finance, shows a renewed commitment to identifying barriers to sustainable finance. The group develops voluntary and inclusive solutions to overcome these challenges, helping to advance efforts to foster sustainable economic growth. The agenda centred on three interlinked priorities, all contributing to implementing the G20 Sustainable Finance Roadmap.¹ (hereinafter the Roadmap), especially action areas 2, 7, 13, 15, 16, and 18:

1. **Strengthening the global sustainable finance architecture**, focusing on enhancing partnerships among vertical climate and environmental funds (VCEFs), and multilateral and national development banks (MDBs and NDBs) to more effectively and efficiently mobilise public and private capital.
2. **Scaling up financing for adaptation**, acknowledging the need for urgent action to scale up adaptation in the wake of the widespread, significant, and growing impacts of environmental degradation and extreme weather events.
3. **Unlocking the financing potential of carbon credit markets**, improving the integrity and interoperability, accessibility, transparency, and scalability of private sector-led carbon credit markets, particularly through developing principles aimed towards building a common carbon credit data model as a voluntary tool.

These three priorities not only address systemic barriers in scaling up sustainable finance but also present opportunities to deliver tangible development co-benefits. Scaling up sustainable finance can yield outcomes beyond emission reduction, including job creation, infrastructure development, and strengthened social inclusion. Recognising and communicating these broader benefits is essential to mobilising political will and unlocking finance at scale, particularly to emerging markets and developing economies (EMDEs).

The SFWG also reaffirms its efforts to continue the overall implementation of the Roadmap as a multi-year, action-oriented document which is voluntary and flexible in nature.

¹ [G20 Sustainable Finance Roadmap](#)

This report presents the key findings and policy recommendations developed by the G20 SFWG in 2025, drawing from four official meetings, a private sector roundtable,² and the following side events:³

- Enhancing the global sustainable finance architecture: promoting interoperability among public development banks (PDBs), MDBs, VCEFs and the private sector
- Working as a system: enhancing interoperability among PDBs⁴
- Scaling up finance for adaptation and just transitions⁵
- Implementation of the Independent High-Level Expert Group Review of the VCEFs
- Tackling natural catastrophe insurance protection gaps – A global imperative⁶
- Progress on the G20 Sustainable Finance Roadmap and the G20 Technical Assistance Action Plan

Notably, in May 2025, a joint meeting of the Framework Working Group (FWG) and SFWG was held for the first time to explore synergies between the work of the two groups. Members shared the view that closer cooperation between the groups is helpful for a stable policy and regulatory framework, which is necessary to scale up sustainable finance.

The discussions among G20 members were informed by a set of papers provided by the following knowledge partners⁷: the African Development Bank (AfDB), Climate Policy Initiative (CPI), Climate Data Steering Committee (CDSC), Finance in Common (FiCS), International Association of Insurance Supervisors (IAIS), World Bank Group (WBG), the Network for Greening the Financial System (NGFS), the Organisation for Economic Co-operation and Development (OECD), and the World Resource Institute (WRI).

This report proposes recommendations and high-level principles that are voluntary, flexible, and non-binding and should be interpreted in a manner consistent with national contexts and sovereignty. The report also includes a summary of activities voluntarily reported by G20 jurisdictions, international organisations (IOs), groups, and networks related to the Sustainable Finance Roadmap.

² Co-hosted with the Glasgow Financial Alliance for Net Zero

³ Summaries of meetings and side events are available on the [G20 SFWG website](#)

⁴ Co-hosted by Finance in Common and the Development Bank of Southern Africa (DBSA)

⁵ Co-hosted by the Presidential Climate Commission (PCC) and Banking Association South Africa (BASA)

⁶ Co-hosted by the International Association of Insurance Supervisors (IAIS) and the World Bank Group

⁷ Input papers are available on the [G20 SFWG website](#)

Priority 1: Strengthening the global sustainable finance architecture

Context

According to the United Nations Framework Convention on Climate Change (UNFCCC) Standing Committee on Finance,⁸ global climate finance flows reached an annual average of US\$1.3 trillion during the 2021–2022 biennial, increasing by 63% compared to the 2019–2020 period. Despite this significant growth, these flows remain relatively small in comparison to the overall global financial needs. According to the Global Biodiversity Framework, the world is also underinvesting in biodiversity conservation financing by approximately US\$700 billion per year.⁹

As fiscal environments grow more constrained, public resources for climate and environmental initiatives are becoming increasingly limited. Consequently, improving the efficiency and effectiveness of the global sustainable finance architecture can better leverage available resources and catalyse private funding.

Institutions such as VCEFs,¹⁰ MDBs, NDBs, and the broader ecosystem of PDBs are important components of this architecture, as they work together to scale up funding. The VCEFs have a combined annual commitment capacity of around US\$4 billion to US\$5 billion, with annual disbursements amounting to US\$1.4 billion in 2022.¹¹ Even though co-financing ratios are challenging to measure, between 2019 and 2023, it is estimated that 84% of VCEF-supported projects received additional funding from public sources or direct private sector investment. VCEF-funded mitigation projects attract almost double the amount of co-financing and mobilisation of adaptation projects.¹² More precisely, MDBs contributed 38%, the private sector 27%, governments 17%, and NDBs just 2%.¹³ Notably, MDBs, as the biggest contributors of co-financing with VCEFs, provided US\$17 billion in co-

⁸ UNFCCC Standing Committee on Finance (2024). [The 6th Biennial Assessment on the Overview of Climate Finance Flows](#), p. 152

⁹ Paulson Institute (2020). [Financing Nature: Closing the Global Biodiversity Financing Gap](#)

¹⁰ The term VCEFs is used to refer to the Global Environment Facility (GEF), Green Climate Fund (GCF), Adaptation Fund (AF), and Climate Investment Funds (CIF).

¹¹ Amounts displayed only include funds disbursed by VCEFs themselves.

IHLEG (2024). [Accelerating Sustainable Finance for Emerging Markets and Developing Economies](#).

Other estimates, for a different set of multilateral climate funds, have been provided by the UNFCCC and can be found [here](#).

¹² CPI, FiCS, AfDB (2025). [Strengthening Collaboration to Scale Climate and Development Finance](#). Input paper submitted to the G20 SFWG.

¹³ Ibid

financing from 2019 to 2023, averaging US\$107 million per co-financed project, primarily through debt instruments.¹⁴ On an aggregate basis, VCEF funding is skewed to mitigation, with a significant share of projects and programmes delivering multiple objectives (38%) – both mitigation and adaptation,¹⁵ reflecting their ability to pursue investments with multiple co-benefits for climate and nature.

In recent years, as recommended by the G20 Roadmap towards Better, Bigger, and More Effective MDBs, the MDBs are reforming their operational and financial models. They have broadened their range of financial instruments to engage with partners programmatically, increased the system's overall financial capacity, and developed advanced risk-sharing tools for mobilising private sector resources. MDBs generally provide the majority of their financing through loans, making up 63% of their financing to low- and middle-income countries in 2023.¹⁶ There are opportunities to scale up funding and improve financing conditions for EMDEs through better collaboration between VCEFs and MDBs.

In 2024, under Brazil's G20 Presidency, the SFWG appointed an Independent High-Level Expert Group (IHLEG) to carry out a review of the VCEFs and provide actionable recommendations aimed at (i) optimising VCEFs' operations; and (ii) enhancing their contribution in mobilising other sources of sustainable finance. The IHLEG recommended that VCEFs should actively pursue co-financing mechanisms with MDBs, development finance institutions (DFIs), NDBs, PDBs, and the private sector to syndicate and otherwise increase opportunities to mobilise complementary funding from these sources and enhance coherence in the sustainable finance landscape.¹⁷ The IHLEG Review also suggested that promoting a coordinated programmatic approach could improve project preparation, development, and investment planning. The IHLEG suggested that by working as a cohesive system and supporting clearly defined country-led investment platforms as one of the mechanisms, VCEFs could shift from single projects to implementing broader investment plans, driven by countries' long-term strategies (LTSs), nationally determined contributions (NDCs), and/or national adaptation plans (NAPs). The IHLEG Review further noted the potential benefits of VCEFs providing hybrid capital, guarantees, equity, and other risk sharing instruments, which could help mobilise more funds by leveraging the balance sheets of MDBs and other institutions such as MDBs, DFIs, NDBs, PDBs, and private actors. The SFWG is monitoring the effective implementation of the IHLEG Review recommendations.¹⁸

¹⁴ Ibid

¹⁵ IHLEG (2024). [Accelerating Sustainable Finance for Emerging Markets and Developing Economies](#)

¹⁶ CPI, FiCS, AfDB (2025). [Strengthening collaboration to scale climate and development finance](#)

¹⁷ The [input paper](#) submitted to the G20 SFWG provides examples of typical co-financing and mobilisation mechanisms such as joint co-financing, parallel financing, and direct or indirect private sector mobilisation (p. 6), as well as case studies.

¹⁸ G20 Finance Ministers and Central Bank Governors' Communiqué, Washington DC (24 October 2024)

At the Rio de Janeiro Summit in 2024,¹⁹ G20 Leaders recognised the importance of optimising VCEF operations, aligning them with countries' needs, priorities, and strategies to enhance national ownership and maximise the impact of investments. The G20 Leaders also encouraged VCEFs to take concrete steps to unlock their full potential and improve access, including through a common application and enhanced cooperation with MDBs and national development institutions.

At the 29th United Nations Climate Change Conference or Conference of the Parties (COP29) in 2024, VCEFs published their joint draft Action Plan on Complementarity and Coherence to enhance access to climate finance and increase the collective impact of their actions. The plan calls for improved efficiency, streamlined processes, and coordinated efforts to better support climate action in developing countries.²⁰

Collaboration and co-financing between VCEFs, MDBs, NDBs, other PDBs,²¹ and the private sector can offer potential benefits including increased resource mobilisation, complementary institutional strengths, improved project quality, higher private sector engagement, and better alignment with national and regional priorities. To further advance work on this priority under South Africa's G20 Presidency, the SFWG examined how VCEFs interact with the broader development finance community and how they collaborate with MDBs,²² NDBs, and private financial institutions to explore options that may facilitate co-financing and mobilise more private finance.

At a SFWG side event co-hosted by FiCS and the Development Bank of Southern Africa (DBSA) in February 2025, the SFWG discussed the challenges and opportunities for VCEFs, MDBs, NDBs, and DFIs to collaborate more cohesively as a system.

At another side event at the G20 Finance and Central Bank Deputies (FCBD) Meeting in February 2025, discussions focused on strategies to boost investment opportunities in support of the Sustainable Development Goals (SDGs), climate objectives, and national priorities. Some members and participants offered suggestions including (i) having MDBs and NDBs reaffirm and clarify ways to bolster collective efforts that reflect their individual mandates; and (ii) encouraging more MDBs and NDBs to issue bonds, aiming to double their number over the next five years. It was also suggested that expanding membership eligibility to the Global Emerging Markets Risk Database Consortium (GEMs) to local actors,

¹⁹ G20 Brazil (2024). [G20 Rio de Janeiro Leaders' Declaration](#), p. 44

²⁰ Green Climate Fund (May 2024). [The Multilateral Climate Funds Action Plan on Complementarity and Coherence](#)

²¹ See the typology of public development banks defined by FiCS which include MDBs, NDBs, as well as regional and subnational development banks.

FiCS (2025). [Unlocking the Potential of Public Development Banks for Sustainable Development](#) (p. 11)

²² In the rest of this chapter, MDBs will refer to both multilateral and regional development banks.

especially from the private sector, would improve preciseness of available data. Meanwhile, helping the private sector to better assess risks in frontier markets and establishing key performance indicators for mobilising private finance could help measure institutional effectiveness beyond individual actors' balance sheets.

In June 2025, a side event²³ brought together senior VCEF representatives, implementing entities, country partners, and private sector actors to discuss operational opportunities and constraints in relation to the implementation of the IHLEG recommendations. The discussions recognised NDBs as crucial stakeholders that can better support governments in promoting country-specific investments for sustainable development.²⁴ In addition to providing financing, they also serve as “policy coordinators”, fostering collaboration among diverse stakeholders at the national level. FiCS suggests that a stronger and more coordinated system of MDBs and NDBs could enable a broader impact on the global financial system in support of sustainable development priorities.²⁵

Challenges

Several challenges hinder the effectiveness of the global sustainable finance architecture and limit the ability of VCEFs, MDBs, NDBs, DFIs, and private actors to scale up funding for climate action as well as nature and biodiversity conservation. These obstacles may include:

- **Lack of process coherence to support country-led and -owned investment platforms:** The lack of common strategies and eligibility criteria across institutions often misaligned with local contexts create planning inconsistencies, an uneven operating environment, and limited impact. A persistent individual project approach, coupled with the lack of programmatic, bottom-up investment planning, hinders the development of country-led platforms.
- **Increasing complexity of a growing and fragmented system of international climate and environmental funds.**²⁶ According to the IHLEG Review (2024), as of 2022, there were 81 active environmental funds, 90% of which were publicly funded. Around three-quarters of these operate multilaterally, housed in MDBs and bilateral or UN agencies. A fragmented sustainable finance landscape has multiple adverse implications, including but not limited to duplicated action, costs of multiple governance and management structures, and inefficient use of limited public

²³ G20 South Africa (June 2025). [Key Takeaways from the G20 Sustainable Finance Working Group Private Sector Roundtable](#)

²⁴ FiCS (2025). [Public Development Banks: A Reference Book](#), p. 25

²⁵ Ibid, p. 33

²⁶ (i) Climate Policy Initiative (2023). Global Landscape of Climate Finance

(ii) IHLEG (2024). [Accelerating Sustainable Finance for Emerging Markets and Developing Economies](#)

resources. Furthermore, complexity and fragmentation also imply the following circumstances:

- **Inconsistent methodologies** for measuring and reporting mobilisation and co-financing, financial leverage, rate of concessionality and outcomes. Since each VCEF uses a different methodology to track co-financing, comparisons of co-financing ratios between the funds (including the ones mentioned in the introduction of this chapter) should be interpreted with caution and may not necessarily indicate different levels of mobilisation effectiveness and impact. Besides, fragmented tracking methodologies for tracking mitigation and adaptation funding hinder the ability to tailor co-financing goals for investment pipelines.
- **Remaining fragmentation in accreditation processes:** Despite ongoing efforts, the accreditation process for each VCEF varies. More streamlined and standardised accreditation criteria and processes would enhance opportunities to improve capital absorption and institutional participation.
- **Remaining challenges in accessing VCEF funding:** Access to VCEF funding remains challenging throughout the accreditation, project analysis and approval, and disbursement processes. For some VCEFs this can be a lengthy and complex process with stringent eligibility criteria, limited flexibility and adaptability to local needs, capacity constraints, and limited access for subnational actors, particularly for NDBs and private actors. Direct access remains limited to the institutions that allow it.²⁷
- **Limited information sharing:** Lack of information sharing between VCEFs, MDBs, and NDBs increases costs and hurdle rates for projects as every institution needs to collect its own data and conduct its own project assessment.
- **Difficulty in assessing and mitigating project-level risks:** The lack of available data in EMDEs limits investors from accurately assessing project-level risks. This can significantly deter private sector investment. In addition, individually, VCEFs, MDBs, and NDBs have limited instruments such as local currency solutions and blended finance instruments to improve risk-sharing and support private sector participation. For example, among VCEFs, only the Green Climate Fund (GCF) has a mandate to provide equity.

²⁷ From its inception, the GCF has actively encouraged the accreditation of NDBs. Among its Direct Access Entities, GCF has accredited several NDBs, including the Development Bank of Zambia (DBZ), Fiji Development Bank (FDB), the Brazilian Development Bank (BNDES), DBSA, Vietnam Development Bank (VDB), the Development Bank of Namibia (DBN Namibia), and Financiera del Desarrollo (Findeter). The recently approved accreditation reform by the GCF Board will contribute to expedite the accreditation and increase the number of Direct Access Entities, including NDBs.

- **Ineffective leveraging of VCEFs resources:** VCEFs have unique strengths, diverse mandates, and differing areas of expertise, all of which shape their capacity to leverage resources, which remains low and should be increased. There is considerable room to maximise the use of tools and financing instruments currently available at each institution, increase flexibility, and ensure adequate risk management to avoid underutilisation of resources and fully mobilise VCEFs' capacity to scale up investments and multiply their impact.²⁸
- **Constraints on technical and managerial capacity to develop and execute projects:** Governments in EMDEs often need support to enhance their expertise in planning, executing, and monitoring projects to ensure that funds are used efficiently and effectively and are linked to national programmes and priorities.
- **Uncertainty linked to international economic and financial factors:** In addition to national factors including fiscal risks, global factors such as financial market volatility, trade tensions, and heightened uncertainty concerning inflation could affect investment decisions and long-term planning. These factors increase uncertainty and investment hurdle rates, decreasing both the supply and demand for funding, thus hindering co-financing initiatives. The high cost of capital remains an unsolved critical barrier to sustainable investments.

Recommendations

Recommendation 1: Policymakers and G20 countries should continue their cooperation to enhance the effectiveness and efficiency of the global sustainable finance architecture by strengthening collaboration among VCEFs, MDBs, and NDBs. This includes exploring possibilities to incorporate new development and environment finance initiatives into existing structures and organisations, rather than creating additional entities. Strengthening collaboration among VCEFs, MDBs, and NDBs can significantly improve the effectiveness of development projects and achieve impact at scale. This is because a coordinated approach enables them to **maximise efficiency and diversify their instruments; leverage proximity** to domestic markets and local actors; **provide technical assistance** and catalytic finance for effective project implementation; **and align international financial flows** with national and regional climate and sustainability priorities and the long-term goals of the Paris Agreement.

Recommendation 2: VCEFs, MDBs, and NDBs should leverage their respective strengths and operate collaboratively as a cohesive system to mobilise capital through

²⁸ OECD (16 November 2023). [Scaling Up the Mobilisation of Private Finance for Climate Action in Developing Countries](#)

country-led investment platforms and regional integration initiatives. The existing convening power of MDBs should be utilised. Collaboration among VCEFs, MDBs, and NDBs should focus on facilitating coordination with various stakeholders, including governments, private sector entities, and regional and international organisations. This collaboration aims to support the development of country and regional investment plans and strategies; enhance transparency, predictability, and accountability in the allocation and utilisation of funds while aligning with country capacities, policies, and development priorities; promote the development of bankable project pipelines and capacity building; and leverage country platforms as a strategic entry point for meaningful dialogue on regulatory frameworks and enabling environments. Further, strengthening the role of National Implementing Entities is critical to improving country ownership.

Recommendation 3: VCEFs, MDBs, and NDBs should enhance interoperability of procedures and overall coordination and cooperation to overcome knowledge and data gaps, wherever possible taking account of work on MDB reform in line with the direction of their respective governing bodies. More specifically, they should:

- **Promote complementarity and coherence, without imposing additional administrative burdens and limiting EMDEs' existing access to finance, under the guidance and direction of their governing bodies.** This includes but is not limited to:
 - Sharing ongoing MDB discussions on co-financing methodologies with VCEFs and NDBs to promote interoperability in definitions across financial structures.
 - Increasing interoperability between project approval processes and templates to enable and incentivise the development of joint or parallel initiatives that leverage the comparative advantages of each institution.
 - Working to coordinate on due diligence processes between and within institution types and promoting cross-recognition of accreditation to facilitate ease of access and enhance speed for financing climate action, particularly in developing countries.
 - Developing joint guidance to improve interoperability and streamline project requirements where possible and appropriate, which could ease private sector engagement.
 - Implementing targeted policy and operational reforms within VCEFs to improve efficiency, responsiveness, and expand access to NDBs.
- **Collaborate for improving access to high-quality climate data and tools** through encouraging open data initiatives and information sharing.

- **Explore how to enhance coordination to develop consistent methodologies for measuring mobilisation and co-financing, financial leverage, rate of concessionality, and outcomes** – at both project and portfolio levels – for better tracking of domestic and international outflow. This would help to improve accountability and reduce fragmentation of concessional finance across funding channels and philanthropy.

Recommendation 4: VCEFs should collaborate to improve transparency through a shared information tool on VCEF financing. VCEFs should develop an accessible tool that maps out their various financing windows and opportunities, with details of eligibility criteria, other access requirements, target beneficiaries, and levels of concessionality. Such a tool would help countries, particularly those with limited institutional capacity, to better understand and navigate the range of financing options available. MDBs, NDBs, and other collaborating institutions can use this one-stop shop to effectively target proposals to the right fund, programme or pot of funding. MDBs could also consider providing accessible and transparent information on the range of instruments they are able to provide and their windows of finance, to give governments a clearer view of the finance that is available and the access criteria that need to be met.

Recommendation 5: VCEFs, MDBs, and NDBs should coordinate to leverage the full potential of their capital through employing a comprehensive suite of financing instruments tailored to local needs and capacities, and mobilising private sector investment. For this purpose, instruments could include grants, concessional debt, guarantees, equity, and local currency products, improving flexibility of terms (i.e. pricing, tenor, rank, and security), while respecting the institutions' resource management rules and regulations.

- a. VCEFs, MDBs, and NDBs should leverage their capacity to take on risk to attract other public and private investors. By using the minimum level of concessionality needed, they can maximise capital mobilisation and, in turn, maximise impact. VCEFs and MDBs should cooperate to enable greater financial leverage of VCEF resources directed to the public sector, including, where appropriate and on a case-by-case basis, through the possibility for VCEFs to make use of newly created MDB financial instruments such as portfolio guarantees and hybrid capital. These instruments typically offer high leverage, representing a strategic opportunity for VCEFs to amplify the use and scale up the impact of their available resources.

- b. VCEFs, MDBs, and NDBs should assess options for more targeted use of guarantees, introducing First Loss Default Guarantee, an expansion of first loss equity financing,²⁹ and risk sharing and insurance facilities, to attract additional private finance for climate action. VCEFs, MDBs, and NDBs should analyse these options while properly factoring in potential financial risks. MDBs should consider the design of dedicated guarantee lines for EMDEs, with more flexible conditions and allocations that are complementary to regular financing ceilings.
- c. VCEFs, MDBs, and NDBs should take coordinated actions to expand local currency financing and strengthen local financial and capital markets. For example, MDBs should explore the development of blended finance instruments that combine local and hard currencies and establish affordable currency hedging schemes to support the structuring of long-term finance. Expanding local currency financing in EMDEs also requires strengthening domestic capital markets, for which cooperation between MDBs and local central banks, ministries of finances, and financial regulators is essential.

Recommendation 6: Grant resources from VCEFs, MDBs, and NDBs should address upstream policy, institutional, and capacity deficits, including through capacity building and technical assistance, particularly where private capital exhibits high risk aversion. To avoid duplicating technical assistance, VCEFs, MDBs, and NDBs should facilitate systematic collaboration at the operational level. It is also important to enhance support for project preparation, develop stronger monitoring and evaluation frameworks for tracking financial flows from VCEFs and MDBs, and build institutional capacity of regional and domestic agencies for effective identification, design, and implementation of bankable projects while leveraging fit-for-purpose, innovative financing instruments, especially for emerging infrastructure projects in high-risk areas.

Recommendation 7: VCEFs, MDBs, DFIs, NDBs, PDBs, and private actors should work together to increase efficiency and effective delivery of adaptation finance, particularly in EMDEs, that should align with national adaptation strategies and priorities to effectively enhance climate resilience and with the aim of achieving a balance between adaptation and mitigation financing.

²⁹ World Bank (2017). Catalytic first-loss capital refers to [socially and environmentally driven credit enhancement](#) provided by an investor or grant maker who agrees to bear first losses in an investment to catalyse the participation of co-investors that would not have otherwise entered the deal.

Priority 2: Scaling up financing for adaptation

Introduction

In 2023, the first Global Stocktake (GST-1) adopted by the Parties to the Paris Agreement stated the need to increase financial support for climate adaptation, improve the integration of climate policies at both national and international levels, covering, as appropriate, ecosystems, sectors, people, and vulnerable communities.³⁰

In 2024, G20 Leaders recognised the urgency of scaling up, prioritising, and mainstreaming whole-of-society and whole-of-economy adaptation in the wake of the widespread, significant, and growing impacts of extreme weather events.³¹

While efficient and timely mitigation action is required to reduce future climate risks, effective, cost-efficient, and country-driven adaptation measures are needed to tackle current and future climate-related impacts. Adaptation finance, as discussed in this report, refers to finance for actions that help enable natural or human systems to respond to actual or anticipated climatic stimuli or their effects, which moderate harm or exploit beneficial opportunities.³²

Adaptation can help people, businesses, communities, and countries to anticipate and prepare for current and future climate impacts. Adaptation may encompass a broad array of sectors and activities, including but not limited to water, energy, agriculture, real estate, biodiversity, food, infrastructure, poverty, and heritage.³³

In addition to reducing vulnerability, adaptation investments can generate substantial development co-benefits, including job creation in sectors such as agriculture and construction, improved infrastructure services, and enhanced local economic resilience. These co-benefits are especially important for gaining community support, mobilising finance, and integrating climate resilience into national development strategies, particularly in EMDEs.

Adaptation, resilience, and disaster risk reduction are seen as distinct but with overlapping elements. Not all disasters are climate-related, adaptation includes some risk management and risk reduction, and adaptation alone may not always suffice to build adequate

³⁰ UNFCCC (2023). [Decision 1/CMA.5. Outcome of the first global stocktake](#)

³¹ G20 Brazil (2024). [G20 Rio de Janeiro Leaders' Declaration](#)

³² Based on the UNFCCC [definition of adaptation](#)

³³ UNEP (2024). [Adaptation Gap Report 2024](#)

resilience. Yet, investing in adaptation is a prerequisite to secure a whole-of-society's ability to endure and recover from climate-related impacts.³⁴

The SFWG recognised that physical climate risks and other natural disasters (e.g. earthquakes) may pose a significant threat to financial stability and economic development. The working group's focus turned to identifying and addressing barriers to help scale up finance for climate adaptation. In 2024, global economic losses from natural disasters exceeded US\$320 billion, nearly 40% above the annual inflation-adjusted average of the past decade.³⁵ EMDEs are particularly vulnerable to the impacts of natural disasters. The insurance protection gap can exceed 90% in EMDEs.³⁶ A report from the Bank for International Settlements (BIS)³⁷ has demonstrated that uninsured losses drive macroeconomic costs of natural disasters, highlighting EMDEs' vulnerability to the economic impacts of natural disasters.³⁸

Adaptation finance can provide triple dividends;³⁹ avoiding future losses (first dividend), bringing economic and development gains (second dividend), and providing added social and environmental benefits (third dividend). Research indicates that every dollar invested in adaptation this decade, could yield between US\$2 and US\$12 in overall economic benefits.⁴⁰

Despite potential economic benefits, opportunities to expand adaptation finance remain undercapitalised. Acknowledging that data limitations prevent comprehensive tracking of adaptation finance, it is estimated that adaptation finance accounts for only 5% to 13% of all global climate finance flows.^{41,42} Measuring adaptation financing is challenging both conceptually and quantitatively; yet some estimates, specifically for developing countries, show that around US\$215 billion to US\$387 billion will be needed annually until 2030.⁴³

³⁴ World Bank (2024), [Rising to the Challenge: Success Stories and Strategies for Achieving Climate Adaptation and Resilience](#)

³⁵ Munich Re media release (9 January 2025). [Climate change is showing its claws: The world is getting hotter, resulting in severe hurricanes, thunderstorms and floods](#)

³⁶ World Bank Group (2025). [Mobilizing public-private solutions to manage the financial impacts of natural hazards in EMDEs](#)

³⁷ Bank for International Settlements (2024). [Unmitigated disasters? Risk-sharing and macroeconomic recovery in a large international panel](#)

³⁸ Meteorological Technology International (2023). [Cost of weather-related disasters soars but early warnings save lives](#)

³⁹ World Research Institute working paper, Heubaum, H, Brandon, C, Tanner, T, Surminski, S, and Roezer, V (2022). [The Triple Dividend of Building Climate Resilience: Taking Stock, Moving Forward](#)

⁴⁰ (i) Standard Chartered, KPMG, UNDRR (April 2024). [Guide for Adaptation and Resilience Finance](#)

(ii) Global Commission on Adaptation (2019). [Adapt Now: A Global Call for Leadership on Climate Resilience](#)

(iii) World Bank (2019). [Enabling Private Investment in Climate Adaptation and Resilience](#)

⁴¹ CPI (2024). [Global Landscape of Climate Finance 2024: Insights for COP29](#)

⁴² UNFCCC (2024). [UNFCCC SCF Sixth BA- Summary and Recommendations | UNFCCC](#)

⁴³ UNFCCC (2023). [Decision 1/CMA.5. Outcome of the first global stocktake](#)

To further scale-up adaptation finance, the SFWG in 2025 explored three key areas:

- a. Integrating adaptation and resilience into the transition plans of financial institutions and corporates, whether these plans are voluntary or required, may support vulnerable communities and sectors in moving towards sustainable and climate-resilient economies, especially in EMDEs. Section 2A offers recommendations on approaches to set key metrics and targets to allow firms to integrate adaptation into transition planning and help them, if appropriate, set objectives for climate resilience, enable clear tracking of progress, promote accountability, align actions with national priorities, and facilitate informed decision-making.
- b. The insurance sector can contribute to scale up finance for adaptation, improve financial resilience, and enhance broader disaster risk mitigation strategies. Section 2B provides recommendations for reducing insurance protection gaps through a flexible and multifaceted approach. For some countries, this may include integrating disaster risk financing instruments into climate adaptation and resilience strategies, and fostering collaboration among stakeholders, including via robust public-private partnerships.
- c. Financing adaptation will require overcoming a broad range of obstacles. Section 2C explores these obstacles and provides recommendations to address them.

To provide practical examples, a compilation of case studies for adaptation finance has been published, showcasing projects that are diverse in terms of sector, financial instruments, and funding sources.⁴⁴ These examples show measurable impacts on climate risks and are considered scalable or replicable. Annex 1 provides an overview of the financial instruments included in the dataset, the physical climate risks each instrument addresses, and the pool of finance by instrument type.

This priority builds on past SFWG work to promote the scaling up of finance for adaptation⁴⁵ and just transitions, thus promoting sustainable development and strengthening resilience to physical, economic, and financial risks. The group originally focused on mitigation finance, in line with the Roadmap. In 2022, the SFWG published the Transition Finance Framework,⁴⁶ which provides a set of voluntary high-level principles and recommendations to advance financing transitions to low greenhouse gas (GHG) economies. Subsequently, the SFWG has approached adaptation finance indirectly through priorities such as “Enabling finance for the SDGs” and “Capacity building on transition

⁴⁴ Case study compendium submitted to the G20 SFWG, [WRI \(2025\) Scaling Finance for Climate Adaptation, G20 Case Study Database](#)

⁴⁵ Global efforts include: G7 Italia (2024). In a similar vein, [G7 Leaders reiterated their commitment to support EMDEs](#) translating national adaptation plans and other instruments into investment plans aligned with their needs and priorities, including through the G7 Adaption Accelerator Hub. The Hub, supported by the United Nations Development Programme (UNDP), will help unlock and improve access to adaptation finance.

⁴⁶ [G20 Transition Finance Framework](#) extracted from the 2023 G20 Sustainable Finance Report

finance and other SDGs” in 2023, and “Financing nature-based solutions (NbS)” in 2024. Last year, the group also published high-level principles to ensure transition plans for financial institutions and corporates are “credible, robust, and just”.

Against this background, G20 Leaders underscored the importance of continuing the work on operationalising just transitions based on nationally defined priorities, considering the economic, social, and environmental dimensions and national circumstances, and advancing the work to address the challenges to NbS financing.⁴⁷

This priority also builds on G20 FWG work, which, in 2021, recognised the need to integrate a systematic assessment of climate risks and their impacts into the G20 macroeconomic risk monitoring exercise, including aiming to better position the financial sector to manage the risks posed by climate hazards and extreme weather events. Against this background, the G20 Roadmap noted the need for collaboration between the SFWG and FWG to enhance understanding of the macroeconomic implications of climate and natural catastrophe (NatCat) risks and policies, including the impacts on growth, inflation, employment, income distribution, and the costs of transitioning both within and across jurisdictions.⁴⁸ In line with this, the South African G20 Presidency hosted a virtual joint SFWG-FWG meeting on 19–20 May 2025, focusing on identifying policy obstacles to sustainable finance and solutions to reducing the economic and financial impacts of climate-related risks.⁴⁹ Members noted that scaling up sustainable finance requires a comprehensive policy approach that tackles both micro- and macroeconomic policy issues and drives reforms to reduce climate-related risk and creating enabling environments for sustainable investments.

Common challenges

Investment in adaptation – from both public and private sources – is hindered by an interconnected array of market, financial, institutional, policy, and capacity constraints.⁵⁰ These may include:

- **Definitional and attributional challenges:** A key challenge in adaptation financing by the private sector is defining clearly what constitutes adaptation activities. At the SFWG side event on “Scaling up finance for adaptation and just transitions”, some private sector representatives highlighted the need for consistent and uniform understanding and technical guidance to distinguish among sustainable, transition,

⁴⁷ G20 Brazil (November 2024). [G20 Rio de Janeiro Leaders’ Declaration](#)

⁴⁸ Action 13 in Focus Area 3 of the SFWG Roadmap

⁴⁹ Virtual joint SFWG-FWG side event (19–20 May 2025). [Co-chairs’ summary](#)

⁵⁰ OECD/AfDB (2025), [Scaling finance and investment for climate adaptation: Input paper for the G20 Sustainable Finance Working Group](#), OECD Publishing, Paris

and adaptation investments. This distinction is important to clarify the specific objectives and additionality of adaptation finance, while recognising its strong overlap with broader development goals. It allows regulators and markets to accurately assess the additional value that adaptation activities contribute to enhancement of climate adaptation and resilience.

- **The local context of adaptation projects:** Adaptation projects are often highly context-specific, depend on the local circumstances of an area, and can vary even within a jurisdiction. Country-owned NAPs and NDCs can serve as critical reference points, guiding businesses in assessing physical climate risks and setting adaptation strategies to enhance resilience. Detailed NAPs, national biodiversity strategy and action plans (NBSAPs), and NDCs can set out a country's adaptation priorities, inform relevant policy, and support the identification of projects. Yet, as at September 2025, only 77 countries had submitted NAPs, while 45 had submitted revised NDCs.⁵¹
- **Policy and regulatory uncertainty:** Private sector participants to the SFWG side event on “Scaling up finance for adaptation and just transitions” noted that policy uncertainty can limit private investment. Private investors also noted that a lack of predictable and non-discriminatory enforcement of the rule of law – to be confident that their capital will be protected over time, including modification of regulations according to the evolving situation – can further hinder investment in markets. Dedicated policies and regulatory frameworks are essential to address challenges related to valuing adaptation benefits and costs. A supportive policy environment including regulations, incentives, and frameworks specific to adaptation can provide clear guidance for businesses to consider incorporating climate risks and adaptation strategies into their operations, as appropriate.
- **Insufficient project pipelines and national strategy:** There should be a synergy between the project to be funded and national strategy for accessing adaptation financing. However, developing countries often face challenges due to limited expertise in conducting comprehensive climate vulnerability assessments, locating appropriate adaptation activities, and embedding them into the broader development plans.
- **Macroeconomic and fiscal constraints:** Limited fiscal space poses a challenge for many countries in implementing their transition policies, both in advanced economies and EMDEs. Many EMDEs are particularly affected by high debt levels, which are putting pressure on public finances.⁵² High and volatile inflation increases macroeconomic uncertainty and contributes to higher borrowing and hedging costs.

⁵¹ See [NDC Registry](#) and NAP repositories for [developing countries](#) and [developed countries](#) (as of 29 September 2025)

⁵² OECD (December 2024). [OECD Economic Outlook](#), Volume 2024 Issue 2

Furthermore, as highlighted during the joint SFWG-FWG meeting, well-designed regulatory frameworks are an essential precondition for ensuring orderly just transitions pathways, including socioeconomic, workforce, and labour dimensions. Public investment in climate adaptation plays a critical role in building long-term resilience and reducing vulnerabilities. Effectiveness of such investments can be challenged by insufficient strategic budget allocation and planning, procurement inefficiency, inadequate project appraisal methodologies, limited tracking of adaptation finance, and inadequate monitoring of government spending relevant to climate change adaptation.

- **Lack of data, metrics, and tools:** There is a challenge related to the availability, reliability, granularity, clarity, and interoperability of adaptation data and metrics. Assessing adaptation involves unique challenges such as:
 - Limited capacity to assess, understand, and manage climate-related physical risks. A fair and comprehensive assessment of physical risks, exposure to climate hazards, and adaptation needs is required to estimate adaptation financing gaps. It would also support lowering uncertainty on long-term return on investment (see challenge below).
 - Adaptation projects are often highly context-specific and information is not easily transferrable, increasing information costs and making due diligence and project replication more challenging. In addition, collecting and processing high-quality, accurate climate data is often costly and technically challenging to obtain even for countries, let alone corporates and financial institutions, especially in EMDEs.
 - Absence of established metrics, mature methodologies,⁵³ and well-defined targets for adaptation, which pose practical challenges for financial institutions and corporates to incorporate adaptation in their business strategies or risk management frameworks in a meaningful way.⁵⁴ In particular, there are limited clear, consistent, and quantitative adaptation policy targets (such as NDCs under the Paris Agreement for mitigation) to which entities can align. That being said, many countries have outlined their respective adaptation priorities and targets across their national plans (NDCs or NAPs), and where they do exist, financial institutions and corporates are expected to contribute to their achievement and align with them.

⁵³ The NGFS released its [Short-term climate scenarios for central banks and supervisors](#) in May 2025, as the publicly available tool supporting the analysis of the potential near-term impacts of climate policies and climate change on financial stability and economic resilience.

⁵⁴ UK Climate Financial Risk Forum (2024), [Mobilising adaptation finance to build resilience](#)

- **Return on investment uncertainty:** Private sector engagement is hampered by the uncertainty regarding returns on investments in adaptation.⁵⁵ Many adaptation projects generate returns over longer periods or yield broader societal benefits that are hard to monetise for investors, particularly over the short term. Examples include:
 - Retrofitting large-scale infrastructure, where high upfront costs are weighed against uncertain, long-term financial returns.⁵⁶
 - Green roofs and sustainable water management systems, which create significant long-term societal benefits but limited economic incentives for private investors.
 - Adaptation investments such as sustainable infrastructure and resilient supply chains, which reduce future losses but may lack clear revenue streams.

This disconnect arises from multiple barriers, such as market externalities, policy inconsistency, high risk relative to returns, investment timing issues, limited access to credit and other financial sources, and low investor confidence – especially when regulatory frameworks are inadequate.

- **Limited expertise, capacity, and awareness:** Many organisations lack internal expertise on climate resilience and adaptation. Furthermore, scarce technical capacities, low awareness, limited financial and technological resources to develop risk-based supervisory frameworks, and lack of a supportive environment for new innovative financial products, as well as limited capacity to develop commercially viable projects, pose challenges for designing suitable cost-effective financial products, especially in EMDEs.

Cross-cutting recommendations

Recommendation 1: Improve the communication of adaptation needs. To support the identification of projects that contribute to adaptation, relevant institutions in G20 jurisdictions should consider appropriate ways to increase transparency around potential climate risks and effectively communicate adaptation needs, and benefits, in line with the regulations, policies, and plans of their respective jurisdictions. Financial institutions and corporates should explore approaches to account for the impacts of climate-related risks into transition planning (see section 2A below), operations, stress testing, and broader risk

⁵⁵ Maigret, A & al, e. (2021). [Enabling Private Investment in Climate Adaptation and Resilience: Current Status, Barriers to Investment and Blueprint for Action](#). World Bank.

⁵⁶ OECD (2024), [Climate Adaptation Investment Framework, Green Finance and Investment](#), OECD Publishing, Paris.

management system. G20 jurisdictions are encouraged to continue to promote the work under the Global Goal on Adaptation.⁵⁷

Recommendation 2: Strengthen the domestic enabling environment, including policy and regulations. G20 jurisdictions are encouraged to explore ways to create stable, transparent, and predictable domestic enabling environments to foster private sector investment, based on national circumstances and priorities. Policy areas could include:

- Articulating strategic priorities by developing NAPs and strengthening the adaptation component of NDCs. Governments could clearly define roles and responsibilities across government sectors and between public and private actors. Where country-driven NAP processes are underway or are already being considered, relevant ministries could engage in their development and ensure alignment with national investment strategies and planning processes on a voluntary basis.
- Better understanding of the economic, social, and environmental benefits of adaptation finance projects, to make informed financing decisions if, and where, the benefits outweigh the costs. Enhancing efforts to reflect adaptation needs and benefits of public spending to the extent possible and as appropriate. This could involve considering adaptation, as appropriate, within planning processes, relevant appraisals, relevant policies and policy frameworks, and financial management strategies, wherever feasible and as appropriate to the national context.
- Creating an enabling macroeconomic environment, for example by exploring ways to use existing resources more effectively. This may include better leveraging of public funds to attract private sector participation and investments through a variety of instruments, including better risk-sharing mechanisms, particularly in areas that may not be immediately captured by markets (e.g. NbS).
- Robust policy and regulatory frameworks could encourage private sector engagement. This could also include the development of appropriate and consistent policy risk-based approaches and tools to address potential climate-related impacts, across different levels. Additionally, it is significant for individual firms to have access to financial products and services to maximise the efficiency and effectiveness of their adaptation investments.

Recommendation 3: Improving data. G20 jurisdictions should encourage coordination to elaborate robust, decision-relevant information to underpin adaptation needs, in line with national pathways and approaches, including through:

⁵⁷ It could build on existing work, such as the Climate Bonds Initiative's (CBI) [Climate Bonds Resilience Taxonomy](#), designed to provide clear guidance on what constitutes a resilient investment, or the 24 adaptation-related taxonomies.

- Promoting the development of open data approaches and data portals that offer geographical granularity and downscaled data in a usable format for end users. This could include providing targeted support to the project implementing agencies, including local governments and small- and medium-sized enterprises (SMEs), to help them identify potential climate-related risk.
- Encouraging enhanced capacity building to better understand the relationship between climate impact and economic and financial impact.
- Participating in national or regional platforms or initiatives to improve data quality and accessibility and their use in adaptation finance and insurance leveraging, and, where possible, using proportional administrative data to limit the communication and reporting burden of firms, especially for SMEs.
- Continuing to support disclosure frameworks or guidance – according to national circumstances – including those that take into account international standards such as those of the Global Reporting Initiative (GRI) and the International Financial Reporting Standards (IFRS) S1 and S2, keeping in mind the importance of interoperability, to enhance the availability and global comparability of decision-useful information about corporate and financial sector exposure to sustainability-related risks and opportunities.

Recommendation 4: Scaling up capacity building. G20 jurisdictions, IOs, and DFIs should leverage capacity building and institutional strengthening within their country to improve understanding and practical implementation of adaptation-related investments to drive economic growth. This could involve technical assistance; encouraging peer learning and knowledge exchange; strengthening risk assessment and risk management within the public and private sectors; and promoting financial literacy, with a specific focus on SMEs in EMDEs.

Recommendation 5: Increasing accuracy of risk assessment. G20 jurisdictions should consider encouraging continuous dialogue in existing forums among MDBs, private investors, governments, and credit rating agencies (CRA) to increase transparency and the accuracy of risk assessments. This collaborative effort could lead to more consistent and reliable data, enabling better assessment of investment risks in EMDEs.

A: Integrate adaptation and resilience considerations into the transition plans and/or other climate disclosures of financial institutions and corporates

Context

Some financial institutions and corporates are increasingly exposed to physical risks. S&P Global projects that the total cumulative costs of climate hazard exposure for the world's largest companies could reach US\$25 trillion by 2050, in a scenario where global temperature rises by 2.7°C by the end of the century.⁵⁸ Yet, assessments show that only 35% of the world's largest companies have disclosed they have an adaptation plan.⁵⁹ To date, most transition planning processes and related transition plans have primarily focused on reducing GHG emissions intensity, with only around half of financial institutions and corporates considering physical risks in their climate risk assessments.⁶⁰

Transition planning processes and related transition plans⁶¹ may be useful tools for identifying and managing climate-related risks and opportunities and may serve as strategic instruments to facilitate the alignment of organisations' strategies with their broader national and local resilience goals.⁶² Along with the transition risk and mitigation strategies, transition plans may also play a role in mobilising private capital. Transition plans could also offer a structured approach to assess physical risk exposures and adaptation needs, identify potential responses, and clarify how resilience measures may inform operational and financial decisions – while also contributing to broader national resilience.⁶³

Disclosure frameworks are also evolving to support organisations' preparedness for climate-related disruptions. For instance, the International Sustainability Standards Board's (ISSB)

⁵⁸ S&P Global (2025), [Climate costs are rising, but few companies have an adaptation plan](#)

⁵⁹ Ibid

⁶⁰ CDP (2023), self-reported responses to the [CDP questionnaire](#)

⁶¹ As per the definition used by the NGFS: "...‘transition planning’ is the internal strategic planning and risk management processes undertaken by a financial institution to prepare for risks and potential changes in business models associated with the transition. A ‘transition plan’ is a key product of the transition planning process and an external-facing output for external audiences, such as investors, shareholders and regulators". NGFS (2024). [Credible Transition Plans: The micro-prudential perspective](#)

⁶² In line with reports from the NGFS (2023) [Stocktake on Financial Institutions' Transition Plans and their Relevance to Micro-prudential Authorities](#), and the FSB (2025) [The Relevance of Transition Plans for Financial Stability](#).

⁶³ See example of how interested firms could proceed in the input paper submitted to the SFWG in 2025 by the NGFS ([Integrating Adaptation and Resilience into Transition plans](#)) or the TPT Transition Plan Taskforce report ([Building Climate-ready Transition Plans: Including adaptation and resilience for comprehensive transition planning approaches](#)).

IFRS S2⁶⁴ standard includes disclosures on physical risks and adaptation strategies, reflecting market demand for clarity on organisation preparedness.⁶⁵ Business continuity management practices under ISO 22301⁶⁶ have recently been updated to explicitly incorporate climate-related risks as a significant business disruption factor.

Building upon its work under the Brazilian G20 Presidency in promoting credible, robust, and just transitions plans, the SFWG also identified the importance of considering adaptation and resilience in transition planning processes and related plans of financial institutions and corporates. Improved planning, including the measurement and management of exposures and vulnerabilities to physical risks, should contribute to scaling up finance for adaptation. By embedding adaptation and resilience into transition planning and resulting plans, organisations can be better equipped to navigate the complexities of climate-related risks and impacts, thereby contributing to the broader goals of sustainable development and financial stability.

This work is aligned with Action 18 of the Roadmap, as it involves defining credible transition pathways and metrics that explicitly account for physical climate risks and resilience strategies that aim to scale up sustainable finance and enhance the financial system's resilience to climate-related risks.

Challenges

Effective integration of adaptation in the transition planning process and emerging plans of financial institutions and corporates require consideration of a broad array of challenges, from systemic barriers to adaptation investment to institution-specific planning and reporting practices. In addition to the cross-cutting challenges described in the Common Challenges section above, specific challenges include:

- **Dependency between national plans** and the **transition planning** of financial institutions and corporates. Where available, government policies, plans (NDCs, NAPs), and regulatory frameworks form the foundation for effective private sector engagement in transition planning. However, due to the inherently local nature of adaptation measures, these plans and frameworks may not have the level of granularity required to develop resilience actions for all financial institutions and corporates.

⁶⁴ IFRS. [Introduction to the ISSB and IFRS Sustainability Disclosure Standards](#)

⁶⁵ The ISSB also provided a guidance document on disclosing information about an entity's climate-related transition, including information about transition plans. IFRS (2025). [IFRS Foundation publishes guidance on disclosures about transition plans](#)

⁶⁶ ISO (2024). [ISO 22301 on Business continuity management systems](#)

- **Interdependencies** between the financial and non-financial sectors determine the extent to which financial institutions can first conduct a risk assessment before having the ability to fully integrate and deliver on adaptation in the transition planning and their transition plans. They often rely on the transition plans of non-financial institutions to assess the resilience of their balance sheet to climate-related risks and align their financial exposure with broader national climate objectives. Thus, non-financial institutions' transition plans remain essential sources of forward-looking climate-related information for financial institutions' transition planning efforts. However, these plans can sometimes be of low quality, highly heterogeneous, or non-existent.⁶⁷ Additionally, preparing these plans may involve specific data collection and the allocation of extra financial resources.
- **Data gaps:** Integration of adaptation in transition plans remains limited by data gaps, difficulties in measuring adaptation needs and outcomes, absence of widely accepted indicators for identification of adaptation measures and tracking of adaptation progress, low perceived financial returns, and capacity constraints (cf. common data challenges in the section above).

Recommendations

G20 jurisdictions have different approaches to transition plans and disclosures, which are required in some and are voluntary in others. Information that in some jurisdictions is expected to be part of the transition plan may in other jurisdictions be part of other climate-related disclosures. The following recommendations⁶⁸ are designed to be flexible and proportionate. Where appropriate, they may apply to climate-related disclosures that are not part of the transition plan as such. These recommendations can also inform the work of IOs or standard-setting bodies, especially in the case of recommendations on targets and metrics. Ultimately, financial institutions and corporates should act in accordance with their applicable fiduciary, regulatory, and legal obligations of the respective jurisdictions.

Recommendation 6: The SFWG recommends the following voluntary high-level principles for integrating adaptation and resilience considerations into the transition plans and/or other climate disclosures of financial institutions and corporates, whether required or voluntary. This approach is intended to be sector-neutral and a communication of what good practice could look like where and when financial institutions and corporates choose to integrate

⁶⁷ NGFS (2024). [Connecting Transition Plans: Financial and non-financial firms](#).

⁶⁸ NGFS (2025). Recommendations presented in this section have been informed by the input paper, [Integrating adaptation and resilience into transition plans](#), submitted in 2025 by the NGFS to the G20 SFWG.

adaptation into their transition plans and leverage existing transition plan frameworks,⁶⁹ which are built on five key pillars:⁷⁰

Table 1: High-level principles for integrating adaptation and resilience considerations into transition plans of financial institutions and corporates (thereafter firms) and/or other disclosures

Principle 1: Goals and objectives/ foundations	Transition plans should consider alignment with NAPs, NDCs, and long-term emission reduction strategies (where they exist) as part of deciding whether or how to avoid, accept, transfer, or reduce risk, or capitalise on adaptation opportunities. Transition plans should integrate adaptation and resilience considerations, as a complement to mitigation actions, to both safeguard the long-term own viability of the plans and facilitate wider societal and economic stability in the face of climate-related risks and impacts. In particular: • Transition plans should include information on how firms identify, assess, and manage their exposure and vulnerability to physical risks through their operations. • This should be followed by a proportionate approach to assess materiality and determine the appropriate level of residual (net) risk after risk management measures. The goal is not to eliminate all risk, but to ensure that the firm is resilient enough to withstand these changes without detriment to its business continuity, in line with its risk appetite and tolerance. • A proportionate approach should also be followed to ensure flexibility that supports implementation by firms with different capacities and circumstances.
Principle 2: Implementation strategy	For material risk and opportunity hotspots, transition plans integrating adaptation should cover the risk frameworks and processes firms use to determine the appropriate response and level of residual (net) risk or opportunity. Such plans may include a strategy for how firms approach their decision-making once risks have been identified, including the framework for when firms decide to avoid, accept, transfer or reduce risk, or capitalise on adaptation opportunities. Where firms opt for climate risk reduction, they may additionally consider the costs and benefits of various adaptation measures. Further, while embedding adaptation and resilience considerations into transition plans, firms should align their plans with their strategic interests as

⁶⁹ For example, G20 Principles for Advancing Credible and Robust Just Transition Plans, Glasgow Financial Alliance for Net Zero (GFANZ), European Financial Reporting Advisory Group (EFRAG), and the Transition Plan Taskforce (TPT) which has been adopted by the International Financial Reporting Standards (IFRS) Foundation. An international standard for net zero transition planning for financial firms is being developed by the International Organization for Standardization (ISO), to be finalised in early 2026.

⁷⁰ The five pillars are (i) governance; (ii) foundations; (iii) implementation strategy; (iv) engagement strategy; and (v) metrics and targets.

	well as national priorities, NDCs, and action plans (e.g. NAPs) to attract investments and aim for new assets to be climate resilient. This may include leveraging government strategies and green/sustainable/climate finance frameworks (where they exist and include adaptation) to anticipate market opportunities and identify investment pipelines.
Principle 3: Governance	Transition plans integrating adaptation should embed adaptation into governance and risk management systems. Firms could consider leveraging the existing governance processes used for mitigation and adaptation. Transition plans integrating adaptation may monitor and report on key adaptation metrics and targets and related indicators (where they have been set). This could be done through the firm's climate governance bodies (wherever possible) that may have been established for overseeing the implementation of a transition plan and mitigation targets ensuring a holistic view of the firm's plans for the climate transition and enhancing resilience.
Principle 4: Engagement strategy	Transition plans should proactively identify opportunities for cooperation with stakeholders to enhance resilience. Such engagement could include knowledge sharing, strengthening public data quality and reducing data gaps, and sharing information of adaptation technologies and emerging industry innovations. For financial institutions, engagement with their clients, portfolio companies, and other stakeholders, such as government, regulators, civil society and public sector organisations, about their exposures to physical risks and options for managing and reducing them, is among the available and complementary levers they have to encourage enhanced resilience of the real economy.
Principle 5: Targets, metrics and monitoring	Planning for adaptation should be, where feasible, anchored by targets and supported by appropriate metrics. This may start with a stocktake of data available and an understanding of where climate risk assessments have already been conducted. Once an understanding of data exists, firms should approach the development of adaptation metrics and targets tailored to the local contexts.⁷¹ These targets and metrics should be grounded in the firm's overarching adaptation objectives, including those related to risk reduction, value chain resilience, or alignment with national or local adaptation priorities. See recommendation 7 below for further details.

Recommendation 7: The SFWG recommends the following voluntary high-level approach for integrating adaptation and resilience targets and metrics into the transition plans of financial institutions and corporates. It is also recognised that data availability may create challenges. As for the principles in recommendation 6, this is intended to be sector-neutral

⁷¹ See an example of the maturity model for adaptation metrics and targets suggested by the NGFS in its input paper to the 2025 SFWG.
NGFS (2025). [Integrating adaptation and resilience into transition plans](#)

and a communication of what good practice could look like where financial institutions and corporations choose to integrate adaptation and resilience into their transition plans.

Transition plans integrating adaptation should be, where feasible, anchored by targets and supported by clearly described, meaningful, and appropriate metrics in line with the national priorities, circumstances, and development pathways. Targets reveal to firms both the gap between the current state and their desired outcome and the timeframe over which the firm expects to close this gap. Adaptation targets should be relevant to the metrics that have been developed and the objective that the firm is seeking to achieve. Targets will differ by firm, reflecting differing physical risk exposure, data availability, variances across the jurisdiction within which they operate, and firms' objectives and risk appetites. In some circumstances, it may be possible and appropriate for firms to set adaptation targets in relation to regional or national adaptation plans or other relevant processes, considering localised context. Aligning with national adaptation plans and needs is encouraged.

Financial institutions and corporates can follow a high-level approach for setting adaptation targets and metrics:

Table 2: High-level approach for financial institutions and corporates (thereafter firms) that desire to set adaptation targets and metrics

Baseline metrics and targets	Firms could commence their climate risk assessment by identifying baseline metrics for the exposure and vulnerability of their operations to physical risks to establish targets relevant to these metrics. With location- and operational-relevant data, institutions can assess (i) whether exposure to climate-related hazards exists, and if so; (ii) whether this exposure could lead to financial impact. Firms can start by prioritising key areas for assessment, or by using less granular or more accessible data, then iterate once better data is available. Baseline metrics should identify their physical risk exposure and/or vulnerability.
Input metrics and targets	Input metrics could quantify the resources that a firm deploys to adapt to physical risks and which of these enhance the physical or financial resilience (or both) of the firm. Input metrics could focus on quantifying the action taken by the firm to adapt to physical risks, where available, such as the funding committed, employee training completed, or internal policies developed. Targets for input metrics should allow a firm to assess its adaptation funding's progress over time and compare them against a desired level of input or funding. Input metrics and targets can reflect both risk and opportunity.
Output metrics and targets	Output metrics seek to assess the impact of the actions or measures taken to adapt to physical climate risks. These metrics need to be applicable to a diverse range of potential adaptation outcomes – from forestry, coastal, and

	agricultural projects to infrastructure development and adaptation of varying scales. Targets for risk-based output metrics are potentially an area where adaptation can be benchmarked against a common measure of risk, such as historical or future risk expectations or industry standards.
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B: Identify and address insurance protection gaps

Context

In recent decades, damages and losses from NatCats have surged due to growing frequency, severity, and unpredictability of events often exacerbated by climate change.⁷² NatCat events pose significant risks to not only human life, but also economic growth and potentially financial stability.⁷³ They can adversely affect productivity, infrastructure, transportation, health, and the sustainability of public budgets, which may bear the costs of post-disaster interventions. Moreover, delays in recovery can result in second-round impacts such as prolonged economic downturns, loss of livelihoods, and increased poverty.

While insurance markets can help in mitigating financial impacts stemming from NatCat events, their ability to offer adequate coverage is increasingly being challenged. This leads to a widening of the insurance protection gap against NatCats, defined as the portion of economic losses from NatCat events not covered by insurance (uninsured loss). This gap comprises both the uninsured portion of losses that could have been insured but were not (insurable loss), and the uninsurable losses.

In 2024, the global insurance protection gap was estimated at 57%,⁷⁴ and in EMDEs, it can exceed 90%.⁷⁵ The IAIS projects that this gap may increase.⁷⁶ The Africa, Asia and Latin-America regions face the largest share of uninsured NatCat risks.⁷⁷ Although the protection gap tends to be lower in Europe compared to the global average, substantial differences remain between European countries. Depending on country circumstances, such gaps can

⁷² Swiss Re Institute (2025). [Sigma 1/2025: Natural catastrophes: insured losses on trend to USD 145 billion in 2025](#)

⁷³ FSB (2025). [Assessment of Climate-related Vulnerabilities](#)

⁷⁴ Swiss Re Institute (2025). [Ibid](#)

⁷⁵ WBG (2025). [Mobilizing Public-Private Solutions to Manage the Financial Impacts of Natural Hazards in Emerging Market and Developing Economies](#)

⁷⁶ IAIS (2023). [A call to action: the role of insurance supervisors in addressing natural catastrophe protection gaps](#)

⁷⁷ SwissRe (2025). [How big is the protection gap from natural catastrophes where you are?](#)

pose significant risks not only to financial stability and fiscal sustainability, but also to overall social resilience.

In recent years, promoting insurance protection against NatCat events has become an important priority for many policymakers and the international community. Many IOs, MDBs, and other funding channels have supported tailored solutions to increase insurance coverage and financial resilience against NatCats in EMDEs. Regional catastrophe risk pools⁷⁸ have been established to provide the necessary liquidity and risk-sharing mechanisms for rapid response following climate-related disasters.

Innovative instruments and mechanisms such as public-private insurance programmes (PPIPs), parametric insurance, insurance pools, and catastrophe bonds have been increasingly explored as strategies to narrow the protection gap. However, the implementation of such instruments is constrained in some regions due to limited institutional technical capacity, underscoring the importance of capacity building. In 2022, the Group of Seven (G7) and Vulnerable Twenty (V20), a group of 58 climate-vulnerable economies, initiated the Global Shield against Climate Risks that supports climate-vulnerable countries through pre-arranged finance, parametric insurance, premium subsidies, and technical capacity adaptive social protection programmes.⁷⁹ In 2024, the G7, together with the OECD and IAIS, developed a high-level framework for PPIPs against natural hazards,⁸⁰ which explores one of several potential approaches and highlights the importance of multistakeholder cooperation in developing insurance solutions. More recently and as a follow-up to this work, the WBG has conducted further analysis of the challenges and opportunities of operationalising public-private insurance solutions in EMDEs.⁸¹

Against this backdrop, in 2025, the SFWG under the South African G20 Presidency, worked to provide recommendations⁸² on insurance-based mechanisms and solutions that can be pursued to address the global insurance protection gap, particularly in EMDEs. This should be considered as part of scaling up finance for adaptation, improving financial resilience, and enhancing broader disaster risk mitigation strategies. A side event was convened on the sidelines of the G20 Finance Ministers and Central Bank Governors (FMCBG) Meeting in

⁷⁸ Sovereign risk pools include Caribbean CCRIF, African ARC, Pacific PCRIC and Southeast Asian SEADRIF

⁷⁹ [The Global Shield against Climate Risks](#)

⁸⁰ G7 (2024). [High-Level Framework for Public-Private Insurance Programmes against Natural Hazards](#)

⁸¹ WBG (2025). [Mobilizing Public-Private Solutions to Manage the Financial Impacts of Natural Hazards in Emerging Market and Developing Economies](#)

⁸² Recommendations presented in this section have been informed by the input paper submitted in 2025 by the IAIS, WBG (2025). [G20 Sustainable Finance Working Group input paper: Identify and address insurance protection gaps](#)

Durban. It highlighted the urgency of addressing protection gaps and emphasised the need for a global, multistakeholder approach to addressing them.

Challenges

Each jurisdiction has varying levels of insurance and financial markets development, as well as diverse needs and priorities. Policymakers and supervisors may face the challenge of pursuing a number of (at times competing) policy goals. They need to ensure that insurance companies are financially sound and that consumers are protected and treated fairly, but they may also want to promote market development and encourage innovation and competition. Therefore, challenges tend to be country-specific and context-driven.

Still, addressing insurance protection gaps presents recurrent challenges, which tend to be more compelling in EMDEs, on both the demand and supply side. Challenges can be of structural, financial, and operational nature, and include the following:

- The under-development of financial markets, high premium costs, inadequate regulatory and policy frameworks, and insufficient resources for supervision, coupled with restricted access to global reinsurance markets, can hinder the capacity of local insurers to underwrite NatCat risks and slow the development of local reinsurance markets. This challenge is especially acute in many EMDEs, where insurance protection mechanisms are weaker and fiscal capacity to deal with climate risks is more limited compared to advanced economies.
- The limited availability of high-quality granular data for robust risk assessment and the development of reliable models to set forward-looking, risk-based premiums is already a significant challenge in many jurisdictions. This challenge is further exacerbated by the increasing frequency and lower predictability of NatCat events, which especially affect areas such as food security, real estate, and public infrastructure. This can discourage insurers from taking risks, making insurance unaffordable or at least less attractive, leading to an insufficient or inexistent supply of insurance products. Insufficient insurance coverage also weakens the incentives for proactive climate adaptation investments, hindering overall resilience. On the other hand, governments contemplating the establishment of PPIPs may also face similar data and risk assessment challenges.

Additionally, insufficient loss-and-damage data – especially on non-economic losses such as displacement and livelihood disruption – hampers actuarial modelling and product design.

- Escalating losses linked to physical climate risks and the increasing correlation of climate-related events may diminish the ability and appetite of insurers and

reinsurers to assume NatCat risks. Insurers' prudent risk management strategies may lead them to limit insurance policy offerings to avoid sectoral and/or geographical concentration in their insurance portfolios, particularly in areas of high NatCat risk.

- Low financial literacy and mistrust in insurance products can reduce demand, while high costs for insurance coverage or unavailability of microinsurance can be prohibitive for low-income households and small businesses, especially in many EMDEs. Similarly, low awareness about risks and burden-sharing (e.g. deductibles and policy limits) in case of NatCat events affects consumers' perception of the value of insurance, representing another obstacle to increasing insurance penetration and thus reducing the protection gap. Moreover, high costs for insurance coverage or unavailability of microinsurance can be prohibitive for low-income households and small businesses, especially in many EMDEs.
- Striking a balance between incentivising investment in risk prevention and reduction, and – at the same time – increasing insurance availability and coverage, is a delicate task. At the micro level, insurance solutions, if not well-crafted, may reduce the incentive to invest in risk prevention and reduction. Incorporating risk-based premium structures can help align financial incentives with risk-reducing behaviour, encouraging households and businesses to invest in resilience. At the aggregate level, efforts to increase insurance coverage should not make policymakers lose sight of the importance of advancing mitigation and adaptation actions in tackling natural hazards and systematically investing in adaptation.
- The global insurance industry faces significant technical challenges as climate-related risks and impacts alter the landscape of risk assessment and management, including diminishing reliability on forecast methods based only on historical data, increasing needs for model recalibration and enhancement, and growing investment needs for early warning systems and risk monitoring.
- Limited technical, financial, and technological capacities hinder the development of risk-based supervisory frameworks and the enabling conditions for innovative insurance solutions. This creates persistent barriers for regulators and the private sector in designing and scaling suitable cost-effective insurance products, especially in many EMDEs.
- Lack of insurance protection may lead to more compensation outlays from governments. Further, reduced fiscal space can limit the establishment of adequate backstops in case of major disasters or the development of credible PPIPs. Conversely, state-led disaster relief can unintentionally lower insurance uptake, particularly if the conditions for state relief are unclear, as this may incentivise moral hazard where individuals and businesses rely on an expectation of public assistance rather than investing in insurance coverage. Likewise, accessing insurance coverage

for more frequent and intense disasters can be challenging in developing country contexts, with a focus on resilience to these challenges being prioritised over more infrequent events. This may lead individuals and businesses to perceive a need to rely on public assistance. Additionally, the innovative use of fiscal resources to support insurance coverage, such as subsidising insurance premiums and providing government-backed claims or reinsurance, is often constrained by government spending priorities that limit the ways in which fiscal funds can be used for disaster response. This further complicates efforts to enhance insurance penetration and resilience in the face of climate-related hazards.

- Enhanced collaboration between government, industry, and IOs is often constrained by fragmented governance structures, varying interests and priorities, and limited long-term commitment. These conditions hinder the establishment of coherent and forward-looking collaboration among key actors, making it difficult to align efforts and sustain momentum in advancing adequate insurance solutions. The insurance protection gap amplifies credit risks for FIs by increasing borrower defaults, devaluing collateral, and creating liquidity pressures in adverse climate events. This may heighten systemic vulnerabilities, forcing the banks to incur elevated operational expenses and higher capital requirements.

In conclusion, bridging the insurance protection gap, especially in many EMDEs, requires a flexible and multifaceted approach. This may involve integrating disaster risk-related finance instruments, such as insurance, into broader climate adaptation and resilience strategies, and fostering collaboration among stakeholders according to the specific context.

Recommendations

Recommendation 8: Consider insurance protection into national adaptation and related frameworks. Jurisdictions should consider, where appropriate, integrating insurance-based mechanisms into national adaptation frameworks, such as NAPs and LTSs, and related frameworks. Embedding insurance within broader macroeconomic and public financial management strategies can enhance countries' ability to manage climate-related risks, protect fiscal sustainability, and improve access to contingent financing.

Recommendation 9: Improve natural hazards exposure assessment. G20 jurisdictions should analyse their exposure to natural hazards and support comprehensive assessments of insurance protection gaps and their potential effects on financial stability. This includes cooperating through relevant IOs to develop methodologies and guidance, such as specific frameworks and metrics to quantify gaps, identify and evaluate underlying hazards and exposures, and assess both current and future financial vulnerabilities according to capacity

levels and national approaches. Advancing foundational risk data infrastructure and open access platforms is critical, as these underpin effective pricing, product design, fiscal and financial risk assessments, and broader development planning.

Recommendation 10: Improve natural hazard risk awareness and enhance financial literacy, especially in underserved market segments. Governments, financial regulators, and the insurance sector should closely cooperate to promote risk awareness and financial literacy among households and companies. This includes providing clear and transparent ex ante information on the scope of compensations and financial assistance that may be available, ultimately fostering consumer protection.

Strengthening consumer awareness through targeted education campaigns and transparent pre-disaster communication strategies can improve the understanding of risk-sharing responsibilities, increase insurance uptake, and help reduce moral hazard. Tailoring messaging to vulnerable populations and underserved market segments can further support inclusiveness, accessibility, and affordability objectives.

Recommendation 11: Support well-coordinated climate risk reduction measures and promote incentives for risk reduction in the design of insurance products, while avoiding unintended consequences such as moral hazard and adverse selection. G20 jurisdictions should invest in broader risk reduction efforts (e.g. building codes and cold storage, land use planning, resilient infrastructure, and early warning systems) to strengthen resilience and expand insurability. The G20 could further understand how to integrate climate risk reduction capacity through ecosystems services. Insurance product designs such as premium benefits or conditions could incentivise policyholders to take risk reduction measures, leading to long-term resilience. Encourage supervisors, in alignment with their respective mandates, to verify that underwriting practices accurately reflect these risks while protecting solvency.

Recommendation 12: Promote access to reinsurance on national and global levels to allow effective portfolio risk management. Supervisors and policymakers should support a broad set of financial tools, including insurance, reinsurance, insurance-linked securities such as catastrophe bonds, and other risk transfer mechanisms that can attract private capital while managing large-scale climate-related risks. Financial supervisors and policymakers should promote cooperation with global reinsurers on coverage, technical expertise, product design, and risk modelling. Efforts to expand access to global reinsurance markets should be complemented by a focus on developing local reinsurance and insurance markets, supported by regulatory and technical support.

Recommendation 13: Promote the scale up of pre-arranged disaster risk financing. G20 members, MDBs, and relevant IOs are encouraged to continue promoting the scaling up of

pre-arranged disaster risk financing, including sovereign insurance, catastrophe bonds, contingent credit lines, and regional risk pooling mechanisms. G20 jurisdictions may set measurable targets to shift from post-disaster to pre-disaster financing, especially in vulnerable contexts, and promote the development of regional or multilateral risk pools to enhance affordability and diversification, as appropriate.

Recommendation 14: Encourage the development of inclusive insurance markets in G20 jurisdictions. Supervisors should promote access to innovative and affordable insurance products such as parametric insurance, microinsurance and bundled financial services, as well as facilitating co-insurance while supporting regulatory flexibility through measures like sandboxes and proportionality. Additionally, leveraging technology and digital tools can help expand access and improve efficiency in the insurance sector.

Recommendation 15: Encourage a context-sensitive mix of insurance and risk financing instruments, recognising that no single solution fits all. G20 jurisdictions may support tailoring a combination of measures based on local risk profiles, institutional capacity, and market maturity, while considering financial and regulatory constraints which may influence the design of relevant fiscal policies for robust insurance coverage that will ultimately reduce the fiscal burden for compensatory outlays.

Recommendation 16: Foster an inclusive and multistakeholder approach. Strengthening the insurance architecture requires tailored interventions with strong collaboration among governments, supervisors, the insurance industry, civil society, and development partners. Public-private partnerships can enhance resilience and help ensure that insurance solutions are accessible, affordable, and effective for all segments of society. A multistakeholder approach should be encouraged when advancing the design and implementation of innovative insurance solutions, including PPIPs and other strategies that balance affordability, risk-sharing, and financial sustainability. G20 jurisdictions should promote good practices in governance and risk management, as well as risk-informed premium-setting in mandatory schemes, wherever deemed appropriate and necessary, in line with national regulatory measures and development pathways.

Recommendation 17: To increase insurance coverage in resilient infrastructure, jurisdictions and relevant IOs should promote access to robust data and accurate risk assessments for infrastructure projects. This approach can help identify physical risks early in the design phase, thereby ensuring proper risk coverage in line with project specific requirement.

C: Scale up adaptation funding mechanisms

Context

In 2024, G20 Leaders endorsed the voluntary creation of country-led investment platforms as one of the possible instruments to boost sustainable finance in EMDEs. These flexible platforms, well-adapted to national circumstances, serve as efficient instruments to mobilise both public and private capital, channelling resources toward projects and programmes in EMDEs. Their aim is to address climate mitigation, adaptation, and resilience-building challenges by securing concrete financial flows for just transitions.⁸³

Total tracked adaptation finance reached an annual average of US\$63 billion in 2021–2022.⁸⁴ Despite difficulty in tracking domestic and private adaptation finance,⁸⁵ it is estimated that the public sector has continued to provide 92% of adaptation flows in 2022.⁸⁶

The private sector can contribute to adaptation by:

- Improving business resilience against climate risks.
- Providing finance for adaptation projects that generate a private return.
- Developing adaptation solutions (e.g. drought-resistant crops, cold storage).
- Involving SME owners, such as farmers in agriculture, with specific localised needs.

Adaptation projects may rely on diverse funding sources and customised financial services to meet varying expectations for returns and co-benefits. Small and local banks may contribute to provide this specialised support.

Table 3 outlines how project types potentially align with financial return levels and examples of potential funders. All finance sources require a return, but the private or public nature of the return varies. Policy-driven finance providers such as public sector institutions, MDBs, and VCEFs are important in supporting projects that offer public returns.

Private sector actors, by contrast, require a risk-adjusted financial return comparable with market rates (in terms of opportunity costs). Between these poles are DFIs and impact investors, who may accept below-market returns where projects align with policy or sustainability mandates.

⁸³ G20 Brazil (2024). [G20 Rio de Janeiro Leaders' Declaration](#)

⁸⁴ UNFCCC Standing Committee on Finance (2024). [Sixth Biennial Assessment and Overview of Climate Finance Flows](#) (p. 6, paragraph 21)

⁸⁵ Ibid

⁸⁶ CPI (2024). [Global Landscape of Climate Finance 2024: Insights for COP29](#)

Table 3: Alignment of adaptation project types with financial return profiles and funding sources⁸⁷

Return profile	Example project types	Examples	Potential funding sources
No direct financial return	Public returns	Social safety nets	Domestic public budgets, bilateral aid, philanthropy, and climate funds (e.g. VCEFs)
Some financial returns (below market)	High social or environmental impact, innovative or early-stage solutions	Nature-based solutions and adaptive technologies	DFIs, impact investors and blended finance mechanisms
Market-rate financial return	Adaptation projects with commercial viability or cost savings	Climate-resilient infrastructure and drip irrigation systems	Institutional investors, commercial banks, and private sector enterprises

While recognising that all countries face the challenge of mobilising more resources to enhance their climate resilience, public co-financing and risk-sharing mechanisms remain essential to enable meaningful private sector participation. This section has a particular focus on the needs of EMDEs, that are particularly vulnerable to climate impacts.

Challenges

This section discusses the challenges⁸⁸ to scaling up private finance for adaptation, the obstacles related to public investments in adaptation, and the difficulties in accessing international concessional finance for adaptation. While many of these challenges generally apply to development finance, they are especially pronounced in the context of adaptation finance, in part due to the small scale and localised nature of adaptation projects. In addition to the cross-cutting challenges described above, specific challenges may include:

- **Limited financial instruments:** The financial instruments specifically tailored for adaptation investment remain underdeveloped. While innovative instruments like

⁸⁷ Adapted from OECD (2024). [Climate Adaptation Investment Framework](#). Also echoes the framework from the IHLEG on Climate Finance (2022), [Finance for climate action: Scaling up investment for climate and development](#) (p. 31).

⁸⁸ Challenges and recommendations presented in this section have been informed by the input paper submitted in 2025 by the OECD/AfDB (2025), [Scaling finance and investment for climate adaptation: Input paper for the G20 Sustainable Finance Working Group](#), OECD Publishing, Paris.

resilience bonds or debt-for-nature swaps are emerging, they are often too complex or expensive for smaller-scale adaptation projects, particularly in many EMDEs. Overall, adaptation projects tend to be smaller than mitigation projects, resulting in relatively higher transaction costs.

- **Public procurement constraints:** Often, the positive externalities associated with investment in adaptation (e.g. improving ecosystems services and/or reducing health risks) may not be captured or captured only ex-post event. Procurement processes that focus on upfront costs, rather than on net best value, can discourage long-term solutions, including NbS, which improve the resilience of natural systems.
- **Challenging access to international concessional finance:**⁸⁹ Despite its critical role for supporting adaptation projects, access by many developing countries to international development finance remains challenging. Funding processes are often cumbersome and costly. The landscape is highly fragmented with many VCEFs operating independently. Lengthy review processes and approval timelines, combined with a few standardised assessment metrics, limit the ability to fully demonstrate the benefits of adaptation initiatives (See Priority 1 of this report). This also creates a risk for projects to become obsolete before approval.

These challenges are exacerbated in EMDEs due to currency hedging risks and a lack of data and capacity needed to assess, understand, and manage physical climate risks, as well as to embed adaptation in project origination and development.

Recommendations

Recommendation 18: Scale up innovative financing instruments. G20 jurisdictions could consider promoting the use of innovative financial instruments, including risk-sharing mechanisms, to mobilise private capital for adaptation and risk reduction by private investors. This includes blended finance structures, resilience bonds, insurance-linked securities, and guarantees, among other instruments. VCEFs, MDBs, DFIs, and NDBs should support the development, replication, and scaling up of these instruments, ensuring alignment with NAPs and sector-specific circumstances and pathways. Further exchanges of experience could be organised to build on the existing pool of innovative financial mechanisms for adaptation, share best practices, and reflect on the challenges encountered during the operationalisation of these mechanisms. Collaboration with institutional investors, reinsurers, and commercial banks should also be used to strengthen domestic resource mobilisation by improving the national financial system and building capacity.

⁸⁹ OECD (2023). [Enhancing the insurance sector's contribution to climate adaptation](#), *OECD Business and Finance Policy Papers*, No. 26, OECD Publishing, Paris

Recommendation 19: Develop pipelines of bankable adaptation projects. VCEFs, MDBs, DFIs, and NDBs should provide technical support to help translate adaptation needs (e.g. in water management, agriculture, health, coastal protection) into tangible projects, particularly in the local context. Project preparation facilities can help in this process.

Recommendation 20: Enhancing access to international climate finance for adaptation, particularly by streamlining access procedures, reducing fragmentation, and improving demand-driven delivery aligned with national priorities. Improving the governance of climate finance institutions remain critical to advancing adaptation efforts at scale. Development finance should be used as a catalyst to increase the mobilisation of private finance for adaptation, including by supporting project pipeline development while enabling the private sector's engagement in the early stages of the project development process. Therefore, in line with the 2025 recommendations on the global sustainable finance architecture (as per Chapter 1 of this report), VCEFs, MDBs, NDBs, and other PDBs should work together to increase efficiency and the effective delivery of adaptation finance, including concessional finance with the aim of enhancing finance for adaptation.

Recommendation 21: Disaster risk financing. G20 jurisdictions could consider integrating disaster risk finance strategies within relevant national policies, deferring to subnational government strategies for more effective risk management where applicable. Effective disaster risk financing often requires a multilayered approach that is tailored to the local context, combining a range of instruments to address events of varying frequency and severity, while ensuring that risk mitigation and resilience-building incentives remain intact.

Recommendation 22: As per recommendation 5 of the G20 Technical Action Plan, relevant public sector authorities, PDBs, and IOs should collaborate with professional technical assistance and training providers, as well as with the recipients of technical assistance where appropriate, to support capacity building services tailored to the needs of local sustainable finance ecosystems. Adaptation finance should be considered a key area of focus, with delivery of technical assistance that is context-sensitive, demand-driven, and well-coordinated among providers; addressing topics such as access to reliable, high-quality data and tools; identification of adaptation gaps; integration of climate adaptation into project preparation facilities; and the design of adaptation financing instruments.

Priority 3: Unlocking the financing potential of carbon credit markets

Context

This year, unlocking the financing potential of carbon credit markets has been examined further, as these markets can effectively support the implementation of projects offering climate and environmental benefits that might otherwise struggle to attract investment, especially in EMDEs. By 2030, these markets could channel up to US\$50 billion in funding to EMDEs.⁹⁰ Provided there are appropriate safeguards to ensure environmental integrity, the revenue generated may be used to support climate change mitigation, including nature-based solutions, the development of carbon removal and emission reductions, the development of clean energy technologies, and other technologies that deliver both climate and developmental co-benefits.

Over the past decade, significant progress has been made in developing carbon crediting frameworks internationally – including demand for credits created through Article 6 of the Paris Agreement, sectoral compliance schemes, and the voluntary carbon market (VCM). The guidance for international cooperation under Article 6 of the Paris Agreement has been finalised, with guidance for tracking and recording of voluntary cooperative approaches and Internationally Transferred Mitigation Outcomes (ITMOs) under Article 6.2 agreed at CMA6 (2024).⁹¹ The full operationalisation of a global crediting mechanism under Article 6.4, known as the Paris Agreement Crediting Mechanism (PACM), is still forthcoming.⁹²

Additionally, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), established by the International Civil Aviation Organization (ICAO), uses credits from independent standards. The VCM consists of systems and associated schemes and standards that enable entities (typically corporations) to generate, buy, and sell carbon credits to meet voluntary mitigation targets.

Recent advancements are aimed at addressing demand and supply integrity challenges, increasing the confidence in the ability of carbon markets to support effective climate action. Practitioner-led initiatives in the VCM have also developed standards to support higher credit integrity, particularly supply-side integrity.⁹³ Over the past few years, the work

⁹⁰ Trove Research (2021) [Future Size of the Voluntary Carbon Market | MSCI](#)

⁹¹ [Decision 4/CMA 6](#)

⁹² [Decision 5/ CMA 6: Decision 6/CMA 6](#)

⁹³ ICVCM (2023). [Core Carbon Principles and Assessment Framework](#)

of the Integrity Council for the Voluntary Carbon Market (ICVCM) has identified principles that underpin high-integrity credits against which carbon crediting programmes and credit methodologies can be assessed.⁹⁴ Furthermore, the International Organization of Securities Commissions' (IOSCO) has published a set of Good Practices for VCMs to support the financial integrity of carbon credits and carbon markets. Steps are also being taken to articulate and stimulate high integrity demand.⁹⁵ Complementary demand-side guidance – such as the Voluntary Carbon Markets Integrity Initiative (VCMI) Claims Code of Practice – now sets clear rules for credible corporate use of carbon credits. Increased uptake of such frameworks would improve investors' ability to gauge how corporates retire credits and avoid greenwashing.

The SFWG acknowledges that additional approaches can help advance the financial potential of carbon markets. This can also include enhancing the connectivity of different carbon markets by improving infrastructure, data, and environmental integrity standards, while ensuring that crediting methodologies are appropriate for locally specific contexts. This is especially vital in many EMDEs where local demand and trading volume are currently relatively low, leading to lower carbon credit prices and consequently higher transaction costs. Improving transparency, record-keeping, and data availability can bolster liquidity over time.

Realising the full potential of carbon credit markets will also depend on strong enabling domestic frameworks in EMDEs, transparent benefit-sharing arrangements, and community safeguards, supported by targeted technical assistance and capacity-building to reinforce regulatory capacity. Several jurisdictions have set up compliance carbon markets, subject to dedicated rules and oversight to ensure their proper functioning. While voluntary carbon credit markets are a critical and complementary lever to drive resource mobilisation to developing countries and incentivise low-cost mitigation options, they should not compromise the orderly functioning of those compliance markets, which are out of the scope of this work.

It is also increasingly recognised that carbon credit markets require robust and effective market infrastructure to work as a source of cross-border climate finance. One aspect of infrastructure that is key to efficient market functioning is a common foundation for how data is defined, categorised, and recorded.⁹⁶ The World Bank Carbon Markets Infrastructure Working Group's roadmap found that: *“Carbon markets currently face significant data fragmentation, with inconsistencies across data sources, registries, and*

⁹⁴ Ibid

⁹⁵ Voluntary Carbon Market Integrity Initiative (2023). [Claims Code of Practice](#)

⁹⁶ Additional aspects of market infrastructure might include the role of mutual recognition frameworks, registry linkages, and standardisation of crediting processes, among other considerations.

reporting standards. This fragmentation – resulting from diverse methodologies, incompatible systems, and varying levels of technology adoption – often isolates essential data, such as verification of mitigation outcomes, ownership, and emissions reductions. Siloed information and the lack of a globally recognized common approach complicate efforts to ensure transparency and accuracy in tracking carbon credits.”⁹⁷

IOSCO’s Good Practices Guidance on VCMs also notes criticalities regarding “data availability, accessibility, and general lack of transparency in the market”.⁹⁸

Therefore, the SFWG has chosen to focus on the market infrastructure component of these challenges – specifically on identifying voluntary, common principles for how carbon credit data can be defined, categorised, and recorded. This can support traceability and comparability of credits, and greater consistency across carbon market data systems. Specifically, the SFWG has been working on defining guiding principles for designing an effective voluntary carbon credit data tool (see Recommendations below).

The South African G20 Presidency additionally requested that the Climate Data Steering Committee (CDSC), as lead Knowledge Partner to the SFWG, develop a Common Carbon Credit (CCC) Data Model consistent with the SFWG’s principles and aligned with UNFCCC guidance. The CCC Data Model was provided as an input to the SFWG to take note of and for voluntary adoption by market participants. It has benefited from a rigorous consultation process, which includes input from public, private, and non-profit stakeholders. During the public consultation phase, more than 60 market participants submitted comments on the CCC Data Model. The model includes several features that are potentially important for scaling cross-border carbon credit markets, including efforts for a system of unique identifiers

Challenges

Inconsistencies in the way data is collected and recorded between market segments (horizontal fragmentation) and across the carbon credits life cycle⁹⁹ (vertical fragmentation) as well as lack of common valuation norms, continue to undermine integrity, transparency, comparability, and cross-border fungibility of credits. These governance and integrity gaps remain the main barrier to market credibility; infrastructure and data solutions can only play

⁹⁷ Carbon Markets Infrastructure Working Group (2025). Technical Guidance Note. [Enhancing Data and Systems Interoperability for Carbon Markets: Current Landscape and Strategic Recommendations](#)

⁹⁸ IOSCO (2024). [Voluntary Carbon Markets](#)

⁹⁹ The carbon credits life cycle is understood as encompassing the credit pre-issuance (project design, planning, registration, and implementation); project monitoring, reporting and verification (MRV); and credit issuance, post-issuance (credit authorisation, labelling and credit transactions), and credit usage and retirement.

a complementary role. It still constrains the scale and efficiency with which carbon markets can attract capital to support climate action, particularly to EMDEs. Examples of these adverse consequences include:

- **Weak comparability of project and credit data.** Throughout the carbon credit life cycle – from project design to retirement – and through many market intermediaries, market actors have divergent approaches to collecting and reporting core data information, even within the same carbon credit market segment. This lack of consistency makes it difficult for a broad range of stakeholders to assess credit integrity and performance (both from an environmental and financial perspective). Additionally, this means that registries – both in the official and non-profit sector – must aggregate disparate and incompatible data sources, which creates challenges for accurate emissions accounting and the mobilisation of climate finance. These issues result in smaller demand pools, diminished trust issues in the integrity of carbon credits, and depressing prices for credits generated.
- **Higher transaction costs** for both project developers and buyers, especially those who wish to use credits as part of an appropriate mitigation hierarchy.¹⁰⁰ Project developers face barriers to entry due to lack of standardised data and are forced to pick ex ante a desired market to sell credits. Meanwhile, buyers often need to engage with intermediaries or conduct their own due diligence before purchasing credits – which only very large companies can afford.
- **Double-counting risks and challenges in tracking credits** along the life cycle and across borders.

There is a need for common voluntary tools that span the entire credit life cycle and can work across market segments – including Article 6, VCMs. Several initiatives – including the Climate Action Data (CAD) Trust, the Article 6.2 Crediting Protocol, the Carbon Data Open Protocol, and the Digital for Climate working group – have considered data standardisation questions related to parts of the carbon credit life cycle.¹⁰¹ Despite the progress made by these initiatives, it is widely accepted that stakeholders in carbon credit markets would benefit from a set of principles for carbon data that meets the needs of these different market segments. These principles could also help reduce fragmentation.

¹⁰⁰ An approach that prioritises directly reducing greenhouse gas (GHG) emissions and then offsetting any remaining emissions through carbon credits. Refer to the [Carbon Offset Guide](#) from the Greenhouse Gas Management Institute and the Stockholm Environment Institute.

¹⁰¹ See CAD Trust. [Public Data Dashboard](#); Gold Standard (2024). [Initial Recommendations of Article 6.2 Crediting Protocol](#); ESG Dive (19 March 2025). [30 businesses launch CDOP](#); and Digital for Climate working group carbon registry offers including the [Digital Public Good \(DPG\) National Carbon Registry](#).

Recommendations

Recommendation 1: Noting the potential of high-integrity carbon credit markets, including by promoting interoperability, transparency, and scalability, the SFWG encourages entities designing voluntary tools for carbon credit data collection, processing, storing, and transmission to refer to the guiding principles in Table 4.

Table 4: Guiding principles for designing effective carbon credit data models, as a voluntary tool

1. Align with negotiated multilateral outcomes	The voluntary tools should be respectful of the UNFCCC and Paris Agreement's processes, faithfully integrating Article 6 rules and guidance, and updating these as necessary, in line with relevant UNFCCC guidance.
2. Be delivered as a public good	The voluntary tools should be transparent, adaptable, and openly accessible to all as a public good.
3. Consider the entire carbon credit life cycle	The voluntary tools should strive to cover the entire carbon credit life cycle to ensure that all market participants can access data that is consistent across their respective systems.
4. Leverage best practice from financial markets¹⁰²	The voluntary tools should learn from the existing best practices and leverage the work of the financial market participants, including IOs, MDBs, private entities, and the UNFCCC in improving data infrastructure.
5. Employ widespread formats	The voluntary tools should be presented in widespread formats that are openly accessible, scalable, and interoperable such that market participants and policymakers, particularly those in EMDEs, do not face disproportionate resource requirements or technology-related barriers to using the resource. Users may choose to translate the tool to more advanced technologies that allow machine processing, automation, and real-time updates as digital capacity grows.
6. Respect policymakers' sovereignty	The tools should be a resource for voluntary adoption, without interfering with national policy decisions in the remit of regulators, including (but not limited to) reporting requirements, disclosure rules, the relationship between carbon markets and carbon pricing mechanisms, and the regulatory treatment of carbon credits.

Recommendation 2: As relevant and in line with jurisdictional frameworks, carbon credit market stakeholders are encouraged, on a voluntary basis, to create and/or adopt data frameworks that utilise accessible technology to the extent possible. They are also encouraged to consider data frameworks, evaluated through pilot testing, that reflect the above principles, such as the CCC Data Model built by the CDSC as an input to the SFWG.

¹⁰²The tool should not take a view on whether carbon credits are or should be financial securities, commodities, or any other kind of financial instrument, as this decision is squarely within policymakers' remit.

Such frameworks must remain consistent with, and not override, the reporting structures agreed under the UNFCCC and Paris Agreement.

Recommendation 3: Registries and trading platforms may be encouraged to adopt the tools for carbon credit data that follow the principles listed above, where appropriate.

Recommendation 4: Carbon credit market stakeholders may assist project developers in overcoming the data gaps and in shaping projects informed by the above principles and best practices, as appropriate.

Recommendation 5: International cooperation and the expansion of capacity building are crucial to enhance carbon credit markets' environmental integrity and credibility, reduce market fragmentation, and enhance carbon market efficiency by promoting transparency and consistency. Relevant IOs and initiatives should encourage stakeholders to promote sharing of global carbon data practices, bridging gaps between local implementations and national goals, where appropriate, including by hosting educational programmes.

Recommendation 6: IOs, MDBs, DFIs, and bilateral donors could support establishing dedicated technical-assistance programmes and windows and capacity building activities for EMDEs to enhance their capability to participate in the international carbon markets. These would include the development of carbon registries, designing benefit sharing frameworks and natural resources accounting frameworks.

The SFWG recognises that to fully realise the benefits of adoption of voluntary tools to collect, process, store, and transmit carbon credit data, engagement with both market participants, regulators, and policymakers will be needed for an extended period. We look forward to seeing further progress on this topic, in line with the G20 Sustainable Finance Roadmap Focus Area 1 on market development and approaches to align investments to sustainability goals. This effort relates to Actions 2, 7 and 16. We note the CDSC's efforts to pilot its voluntary CCC Data Model throughout 2026 and update it transparently and regularly in response to stakeholder feedback.

G20 Sustainable Finance Roadmap Progress Report

In 2021, under Italy's G20 Presidency, the G20 SFWG developed the G20 Sustainable Finance Roadmap to help focus the attention of the G20, IOs, and other stakeholders on key priorities of the sustainable finance agenda. The Roadmap, which was endorsed by G20 Leaders in Rome in 2021, is a multi-year, action-oriented document, which is voluntary and flexible in nature. The Communiqué, issued following the 3rd FMCBG Meeting in Durban, notes the progress made thus far on the multi-year Roadmap.¹⁰³

Under the South African G20 Presidency, 18 G20 permanent jurisdictions, 2 guest countries, and 11 IOs, groups, and networks have shared updates on their progress in implementing the Roadmap. This summary of voluntarily reported activities highlights which areas received the most significant efforts in the second half of 2024 and the first half of 2025.

The full details of the progress reported are available on the [G20 SFWG website](#) online dashboard, which is updated annually. The examples given in each section of this summary are illustrative and based on information reported voluntarily.

ROADMAP FOCUS AREA 1 – Market development and approaches to align investments to sustainability goals

Jurisdictions

Among approaches to promote alignment of investments with sustainability goals, sustainable finance reporting, and due diligence, including taxonomies, continue to be advanced by G20 members. Since June 2024, several jurisdictions such as Brazil, Mexico, Indonesia, and Türkiye launched or continued the development of taxonomies, all covering both green and transition activities. Australia released a voluntary taxonomy in June 2025 following national public consultations.

Some jurisdictions with established taxonomies, including China, the European Union (EU), South Korea, Indonesia, and Russia, have focused on refining technical criteria, expanding their scope or including new sectors. China, the EU, and Singapore co-launched the Multi-jurisdiction Common-Ground Taxonomy (MCGT), expanding the International Platform on Sustainable Finance (IPSF)-led EU-China Common Ground Taxonomy to include the Singapore-Asia Taxonomy, highlighting the commonalities and differences across the three

¹⁰³ G20 South Africa (2025). [Finance Track Communiqué: 3rd G20 FMCBG Meeting](#)

taxonomies and promoting voluntary cooperation on taxonomy interoperability while respecting national prerogatives.

Issuance of sovereign and public green and sustainable bonds continues to be used by some G20 jurisdictions for mobilising finance for sustainable development. In 2024, China and Australia issued their debut sovereign green bonds worth RMB6 billion and A\$7.6 billion respectively; Brazil issued its second sovereign sustainable bond raising US\$2 billion; France raised €14.2 billion in 2024 and is targeting €15 billion for 2025; and Türkiye's US\$2.5 billion issuance remains central to its programme. Canada issued CAD4 billion of green bonds from October 2024 to February 2025. Germany raised €17.5 billion in 2024 and is targeting €15 billion for 2025. Italy's sovereign green bonds (Green BTPs) raised €11.5 billion in 2024, bringing the amount to €46.8 billion over the four-year period from 2021 to 2024. The EU's European Green Bond Standard became applicable in December 2024, offering a voluntary, taxonomy-linked label for European issuers.

In 2025, the National Debt Management Center of Saudi Arabia completed the issuance of an international green bond totalling €1.5 billion, in line with the Saudi Arabia Green Finance Framework. This framework supports the achievement of the Kingdom's NDC goals under the Circular Carbon Economy approach, which was endorsed by the G20 Leaders in 2020. Saudi Arabia's new Guidelines for Issuing Green, Social, Sustainable, and Sustainability-Linked Debt Instruments, aligned with ICMA Principles, will help guide the issuance of green bonds and sukuk. The European Commission and European Investment Bank (EIB) launched the Global Green Bond Initiative to mobilise €15 billion to €20 billion in emerging market issuance. From 2024 to September 2025, Indonesia has issued a Global Green Sukuk bond worth US\$1.7 billion to finance eligible green projects. In 2025, the UK Treasury partnered with industry to break down barriers to private capital mobilisation, including through the EMDE Investor Taskforce.

The Japanese government issued government-labeled transition bonds, known as "Japan Climate Transition Bonds", totalling approximately ¥1.4 trillion in 2024. Including these bonds, the government plans to implement bold upfront investments totalling ¥20 trillion over the next 10 years.

IOs, networks, and groups

During COP29 in Azerbaijan (held in November 2024), the Central Bank of Azerbaijan (CBAR), the International Finance Corporation (IFC) Sustainable Banking and Finance Network (SBFN), IPSF, and United Nations Development Programme (UNDP) launched a joint initiative: a Roadmap for Advancing Interoperability and Comparability of Sustainable Finance Taxonomies. The objective is to advance interoperability and comparability between

sustainable finance taxonomies globally, aiding capital mobilisation for the low-carbon transition, especially in emerging and developing markets.

The WBG, United Nations Environmental Programme (UNEP), and UNDP reported direct support to national taxonomy development and adoption. The SBFN Global Progress Brief 2024 found that 30 EMDEs (out of 70 SBFN member countries) have published or are developing sustainable finance taxonomies, and 28 countries have issued thematic bond guidelines. The IPSF will continue working on ‘Do No Significant Harm’ provisions in taxonomy frameworks through 2026.

Disclosure platforms are also evolving to support interoperability in sustainable finance markets. The Carbon Disclosure Project (CDP) has published a Technical Note that aligns its corporate questionnaire with ICMA’s Transition Finance in the Debt Capital Market paper, supporting greater consistency in transition plan disclosures and providing investors with relevant data for sustainability-linked bond reporting.¹⁰⁴

Efforts to expand sustainable bond markets have progressed. As an example, BIS green-bond funds for central banks reached US\$5.9 billion by end-2024; total sustainable assets under management (AUM) stood at US\$6.9 billion.

ROADMAP FOCUS AREA 2 – Consistent, comparable, and decision-useful information on sustainability risks, opportunities, and impacts

Jurisdictions

Over the past year, jurisdictions have continued to embed reporting guidelines into domestic frameworks, including those based on the ISSB Standards.

Among G20 permanent jurisdictions,¹⁰⁵ three have fully adopted ISSB Standards. Australia adopted the climate requirements in the ISSB Standards in 2025. An additional seven G20 jurisdictions have either finalised national sustainability disclosure standards designed to deliver outcomes functionally aligned with ISSB Standards and allow their voluntary use (such as Canada), are in the process of finalising the regulatory arrangements to determine their application by companies (Indonesia and Japan), or have publicly consulted on their standards and are finalising arrangements (China, the EU, South Korea, and the United Kingdom (UK)).

The EU has initiated a proposal for a directive (“Omnibus”) in February 2025 to streamline and simplify sustainability reporting and due diligence requirements. China adopted its

¹⁰⁴ CDP (2025). [CDP Technical Note on ICMA paper: Transition Finance in the Debt Capital Market](#)

¹⁰⁵ IFRS (2025). [IFRS Foundation jurisdictional profiles](#)

foundational sustainability disclosure standard in December 2024 and released draft climate-specific requirements in mid-2025, incorporating value-chain reporting and double materiality. India revised its Business Responsibility and Sustainability Reporting (BRSR) framework by making BRSR Core indicators subject to reasonable assurance for the top 250 companies. The South Africa Companies and Intellectual Property Commission (CIPC) XBRL Taxonomy has been updated to allow voluntary early adopters of IFRS S1 and IFRS S2 to tag their sustainability-related financial disclosures. The CIPC and its partners are conducting a regulatory impact assessment to determine the feasibility and implications of sustainability reporting in South Africa.

Concurrently, jurisdictions expanded data infrastructure to enhance disclosure usability and market confidence. The EU advanced development of the European Single Access Point and supported digital templates via the European Securities and Markets Authority (ESMA) to promote consistency and machine-readability. The European Banking Authority also released in 2025 an environmental, social, and governance (ESG) dashboard that allows centralised access to comparable climate risk indicators relating to the EU/European Economic Area (EEA) banking sector. Australia identified key environmental data gaps and initiated the creation of an open-access platform called “Environment Information Australia”. Türkiye initiated the weekly publication of ESG bond issuance statistics and is currently designing a centralised climate data platform. These measures reflect a coordinated shift towards interoperable reporting obligations underpinned by dedicated digital infrastructure, which remains key to enhancing data accessibility, particularly for emerging and developing economies.

IOs, networks, and groups

IOs have continued to support the implementation of sustainability-related reporting frameworks. Since June 2024, several institutions have launched capacity-building initiatives to accelerate IFRS S1 and IFRS S2 adoption, particularly in emerging markets. The UNDP, GRI, GSG Impact, IFRS Foundation and ISO partnered to establish Sustainability Disclosure and Management Hubs to support the adoption of sustainability disclosures and management standards. The World Bank signed an updated Memorandum of Understanding (MoU) with the IFRS Foundation in April 2025 and partnered with IOSCO to conduct regional workshops supporting EMDE regulators. IFC–SBFN also formalised collaboration with the IFRS Foundation and led a webinar series focused on adoption and transition. The BIS, ISSB, and NGFS conducted seminars; and BIS and FSI held technical webinars, including a Climate and Environmental Risks Online Course for supervisors. CDP aligned its 2025 questionnaire with IFRS S2, resulting in at least 83% of respondents disclosing against the

vast majority (80% or more) of IFRS S2-aligned questions.¹⁰⁶ While these efforts enhance interoperability, limited interpretive resources remain available for SMEs and EMDEs, with CDP and IFC–SBFN partially addressing this gap.

The Taskforce on Nature-related Financial Disclosures (TNFD) deepened collaboration with the ISSB by signing a MoU in April 2025, signaling both parties' commitment to build upon the TNFD recommendations in the ongoing work of the ISSB, to enable nature-related financial disclosures for use by capital markets. The Taskforce on Inequality and Social-related Financial Disclosures (TISFD) was launched in September 2024 as a global initiative aiming to develop a framework for companies and financial institutions to disclose how they manage impacts, risks, and opportunities related to inequality and social issues.

On the data front, IOs prioritised public access, cross-border comparability, and the development of forward-looking metrics. In July 2024, the NGFS released a note proposing improvements in GHG data quality and access, and continued work on its global Data Directory. The Financial Stability Board (FSB) published an analytical toolkit¹⁰⁷ in January 2025 to assist supervisors in mapping forward-looking climate risks, with an emphasis on addressing data gaps in EMDEs. The World Bank relaunched its Sovereign ESG Data Portal in 2025, adding benchmarking tools, while IFC–SBFN launched near-real-time data collection via its Data Portal covering 72 jurisdictions. The BIS expanded data-sharing through its Sustainable Bonds dashboard, now accessible to NGFS members across 23 countries. The EIB, NGFS, OECD and IMF continued their joint methodological work on climate finance data. However, despite these advances, there are still gaps in harmonised definitions and consistent forward-looking indicators, which continue to limit usability and comparability, particularly in EMDE contexts.

ROADMAP FOCUS AREA 3 – Assessment and management of climate and sustainability risks

Jurisdictions

Several G20 jurisdictions have advanced regulatory frameworks to integrate climate and sustainability-related financial risks into prudential oversight. In the EU, authorities finalised binding ESG risk management guidelines for banks in January 2025, embedding transition plan requirements into prudential standards as mandated by Capital Requirements Directive (CRD) 6. The Solvency II review also introduces a new robust framework to cater for the integration of sustainability and climate risks into the activities and prudential oversight of insurers and reinsurers. This includes the obligation to develop and monitor the

¹⁰⁶ CDP (2024). [Scaling the Standard](#)

¹⁰⁷ FSB (2025). [Assessment of Climate-related Vulnerabilities: Analytical framework and toolkit](#)

implementation of prudential transition plans, as well as assess whether it has any material exposure to climate change risks in its reporting to supervisory authorities, particularly through the identification and assessment of risks using the Own Risk and Solvency Assessment (ORSA) process. Germany updated BaFin's Circular on the Prudent Person Principle in March 2025, explicitly incorporating sustainability into insurers' core risk management obligations. Australia issued the Australian Securities and Investments Commission (ASIC) Regulatory Guide 280 (March 2025), outlining expectations for sustainability disclosures, governance, metrics, and assurance. South Africa's Prudential Authority finalised voluntary guidance for banks and insurers on climate-related disclosures, governance, and risk practices, and Türkiye's banking regulator published guidelines on managing climate-related financial risks for implementation. These steps collectively signal clear communication of supervisory expectations across banks, insurers, and other financial entities, but further clarity is needed on supervisory and macroprudential approaches to climate and sustainability risks.

Jurisdictions are scaling up climate-related scenario analysis to assess systemic risks. The Australian Prudential Regulation Authority (APRA) is finalising a Climate Vulnerability Assessment focused on insurance affordability under NGFS scenarios. In the EU, the three European Supervision Agencies and the European Central Bank (ECB) carried out a wide cross-sectoral climate scenario analysis aimed at assessing the EU financial system's ability to withstand adverse shocks while pursuing its target to cut GHG emissions by at least 55% by 2030. The South African Reserve Bank (SARB) completed its first macroprudential stress test of all systemic banks in 2025. China's January 2025 Green Finance Implementation Plan requires regular scenario testing by banks and insurers. In 2024, the Bank of Russia conducted bottom-up transition risk stress tests to clarify the results of the top-down exercise conducted in 2023. In March 2025, the Bank of Korea and South Korea's Financial Supervisory Service jointly assessed climate risks for 14 financial institutions. These efforts are transitioning from pilot exercises to regular supervisory tools feeding into prudential risk assessments and capital frameworks and expanding the use of scenario analysis to support financial stability objectives.

Under South Africa's 2025 G20 Presidency, the FWG explored macroeconomic policies and structural reforms for stronger economic growth in the context of risks from rising temperatures, severe weather, and climate change, informed by several input papers on the macroeconomic effects of climate change, mitigation policies, and transition scenarios. This work was discussed with SFWG members during a joint FWG-SFWG meeting. Some members, such as the Banque de France, have also conducted research projects to enhance the understanding of the macroeconomics of climate change and are developing macroeconomic models. In 2024, Italy adopted legislation to implement measures

regarding catastrophic risk insurance to promote and/or scale up risk mitigation instruments. The new framework is operational and it introduces mandatory insurance for resident companies covering damages resulting from natural disasters and catastrophic events. Indonesia has launched a pilot with 18 large banks to test Climate Risk Management and Scenario Analysis application, assess banks' readiness, collect data on exposures to high-carbon sectors, and refine climate stress testing methodologies.

IOs, networks, and groups

In July 2025, the FSB published a report providing an update on the work it undertook, as well as the activities of standard-setting bodies and other IOs in the four areas identified by the 2021 Roadmap for Addressing Climate-related Financial Risks. At the request of the South African G20 Presidency, the report also provides an outline of the FSB's medium-term approach to potential climate-related financial risks.¹⁰⁸

In the past year, international standard-setters have transitioned from high-level frameworks to more detailed supervisory guidance on climate-related financial risks. The Basel Committee has published a voluntary framework in June 2025 for disclosing climate-related financial risks for jurisdictions to consider. As a next step, its oversight body – the Group of Central Bank Governors and Heads of Supervision (GHOS) – has directed further work on assessing the financial impact of extreme weather events. The IAIS detailed expectations for supervisors on climate risk management in the insurance sector. The FSB developed a framework and analytical toolkit to assess the build-up of climate-related vulnerabilities (January 2025). These efforts were supported by continued capacity building. The World Bank developed tools to assist EMDE supervisors with climate-risk assessments, to be deployed via technical workshops later in 2025.

Stress testing and scenario analysis have become central to supervisory practice. The NGFS released short-term climate scenarios in 2025 for use in stress tests. The FSB toolkit (January 2025) proposed various forward-looking metrics – particularly those that could be used to draw insights for cross-sectoral and cross-border spillovers – that may help in assessing climate-related vulnerabilities. These efforts signal a shift from conceptual guidance to practical tools, allowing supervisors to embed climate risks into their routine financial sector oversight.

¹⁰⁸ FSB (2025). [FSB Roadmap for Addressing Financial Risks from Climate Change](#)

ROADMAP FOCUS AREA 4 – Role of IFIs, public finance, and incentives

Jurisdictions

G20 members are advancing from one-off green finance initiatives to more systemic policy frameworks that combine domestic fiscal tools with MDB-backed risk-sharing instruments to scale private capital mobilisation.

Japan operationalised its Green Transformation (GX) strategy through the issuance of sovereign GX Transition Bonds, the establishment of a GX Acceleration Agency to provide debt guarantees, and a planned national GX-ETS – all designed to catalyse ¥150 trillion in private green investment. Italy expanded state-backed SACE Green Guarantees and launched a new Green Push export-credit window, as well as a Transition 5.0 tax credit to support energy-efficient capital expenditure. Germany increased its contribution to Clean Energy Investment Africa and continues to support distributed energy access through concessional funds. South Africa approved a World Bank-supported Independent Transmission Projects programme and is finalising a JETP Credit Guarantee Vehicle for infrastructure de-risking.

Partnerships with MDBs and DFIs were institutionalised. Japan injected US\$1 billion into the World Bank's Portfolio Guarantee Platform and provided a US\$600 million credit enhancement through the Guarantee Window of the Asian Development Bank's (ADB) Innovative Finance Facility for Climate in Asia and the Pacific (IF-CAP). Australia passed legislation for a US\$200 million guarantee to ADB's IF-CAP, expected to unlock up to US\$11 billion in climate lending. The EU activated its EFSD+ guarantee arm, launched a €1 billion Global Green Bond Initiative, and created a Sustainable Finance Advisory Hub. Australia and South Korea reinforced MDB engagement through replenishments and feasibility partnerships. Canada announced the launch of GAIA in November 2024, a US\$1.48 billion blended finance platform co-founded by FinDev Canada to support climate action in up to 25 EMDEs. Of the funds, 70% will go to adaptation projects and 25% will go to small island and least developed countries.

Together, these efforts represent a shift towards integrated financial architectures; however, stronger coordination among MDBs, bilateral donors, and the private sector is essential to ensure alignment with sustainability goals and improve additionality and mobilisation tracking. By combining transition bonds, public guarantees, tax credits, and MDB collaboration, it is possible to scale sustainable finance and crowd-in more long-term private capital.

IOs, networks, and groups

MDBs have continued to scale up efforts to mobilise private capital for sustainable development, with a shift from pilot instruments to more systemic, risk-sharing platforms. For instance, the WBG operationalised its unified Guarantee Platform under the Multilateral Investment Guarantee Agency.

In parallel, MDBs intensified efforts to support domestic enabling environments. The EIB deployed the Greening Financial Systems Technical Assistance Programme to provide tailored support to central banks and financial institutions in developing policy and regulatory frameworks that facilitate green capital flows and promote low-carbon transitions. The World Bank exceeded its IDA-20 target by supporting 35 countries in updating prudential rules and extending broader climate-finance assistance to over 100 jurisdictions. IFC–SBFN delivered technical reviews for Armenia, Azerbaijan, South Africa, and Sri Lanka. MDBs are also working to align metrics, with the EIB coordinating workstreams on climate reporting and just transition.

Together, these efforts illustrate growing convergence among MDBs in scaling private capital mobilisation through guarantees, technical assistance, and shared tools. However, gaps remain in tracking actual capital leveraged and consolidating technical and financial interventions into coherent pipelines.

ROADMAP FOCUS AREA 5 – Cross-cutting issues

Digital solutions

Several G20 jurisdictions are increasingly embedding digital infrastructure and transition-finance frameworks into their sustainable finance strategies. In addition to initiatives already mentioned in other focus areas, the United Arab Emirates (UAE) has begun tagging ESG disclosures for searchability and piloted artificial intelligence (AI) and blockchain tools under the COP28 TechSprint. Saudi Arabia launched a regional open-data hub focused on low-emission technologies, including carbon abatement and removal technologies, and China's Green Investment Principles database now lists over 270 pre-screened green projects across EMDEs.

IOs have continued to advance digital tools and transition-finance frameworks to support robust, science-based, and inclusive sustainable finance practices. The 2024 G20 TechSprint fostered practical solutions for ESG reporting, nature-based metrics and SDG-aligned digital assets. The BIS Innovation Hub (BIS-IH) developed open-source tools such as Project Gaia (ESG data extraction), Project Symbiosis (AI for Scope 3 emissions), and NGFS Data Directory 2.0 to support supervisory analysis. The BIS-IH also released Project Viridis,

a blueprint for an integrated climate-risk data platform. Indonesia has been developing the CONNECT system, a digital platform that facilitates collaborative climate finance by strengthening data, integrating cross-platform systems, and automating tagging to accelerate fiscal responses to climate change.

G20 Technical Assistance Action Plan Progress Report

The primary objective of the Technical Assistance Action Plan (TAAP) is to strengthen the global ecosystem for capacity building in sustainable finance. It should continue to prioritise demand-driven and context-sensitive delivery, especially in emerging and developing economies. Since its endorsement during India's G20 Presidency in 2023, capacity-building efforts expanded through structured platforms. The BIS–NGFS–IAIS Climate Training Alliance (CTA) now serves as a centralised hub for global e-learning. The Capacity-building Alliance of Sustainable Investment (CASI) Academy has expanded its range of learning experiences, with a goal of making 100 modules available by 2026. CASI addresses challenges such as adapting technical assistance to different national settings and improving support for SMEs, consistent with TAAP's focus on localised approaches. The GCBC Accelerator has been launched, offering selected projects access to advisory services, networks, and resources intended to support investment efforts related to transition in EMDEs. Also following the G20 TAAP guidelines and referenced in the Compromiso de Sevilla, the Platform for Investment Support and Technical Assistance (PISTA), launched in 2025, aims to support the advancement of sustainable investment by developing the investment environment to attract future financial flows.

Finally, in June 2025, the University of Cambridge Institute for Sustainability Leadership (CISL) hosted an in-person executive leadership programme for G20 SFWG delegates, aligning with the G20 Sustainable Finance Roadmap.

Progress on the 2024 G20 SFWG priorities

Optimising the operations of the International Environmental and Climate Funds to deliver sustainable finance

The 2025 SFWG priority on strengthening the global sustainable finance architecture has continued work initiated during Brazil's G20 Presidency. Several events have taken place and summaries are available. A report outlining progress in implementing the recommendations from the independent 2024 IHLEG Review of the VCEFs is also available.¹⁰⁹

¹⁰⁹ See Annex 2

Advancing credible, robust, and just transition plans

In their 2025 progress report, several members highlighted their continuous support to work on financing a just transition.

The 2025 South African G20 Presidency's SFWG continues to build on the progress made in 2024, focusing primarily on scaling up financing for adaptation and just transitions. A key contribution is the NGFS's Input Paper on Adaptation and Resilience. Developed with input from the International Transition Plan Network, Sustainable Insurance Forum, and CDP, this paper proposes an operational framework for integrating adaptation and resilience considerations into transition plans for both financial and non-financial firms. This initiative aims to embed climate resilience more robustly in transition strategies.

Key initiatives advancing the 2024 G20 SFWG recommendations on financial institution and corporate transition plans, as well as addressing just considerations in low-GHG transitions, include the International Platform on Sustainable Finance's technical work on transition pathways for hard-to-abate sectors and critical material supply chains, the NGFS's analysis on integrating adaptation and resilience metrics into transition plans, and the Transition Pathway Stakeholder Support Platform. The latter was launched in December 2024 to enhance collaboration, knowledge sharing, networking, peer learning, and funding advisory services for stakeholders implementing sectoral transition pathways.

Support for firms, especially in developing countries, to develop transition plans has been advanced through efforts enhancing capacity building, transparency, and access to tools and data-sharing platforms, with a focus on the 'just' aspect of transitions. Italy is conducting ongoing analysis for a potential public digital datahub for corporate sustainability data, while India's Reserve Bank is developing the Climate Risk Information System (RBI-CRIS), a digital repository for climate risk assessments that includes physical and transition risk datasets relevant to India's context. The World Bank offers the Just Transition Tool for Private Sector Activities, which provides actionable guidance to policymakers for place-based economic strategies leveraging private sector engagement to promote low-emission, job-rich transitions. The French Sustainable Finance Institute published the 'Investors and Just Transition Awareness Grid' to help investors integrate social justice into investment strategies.

Several jurisdictions are advancing the adoption of transition plans and enabling frameworks. As of 2025, 19 SBFN countries, including five G20 jurisdictions, have started embedding requirements or guidance for financial institutions to develop and disclose transition plans. In June 2025, the UAE issued draft Principles for Climate Transition Planning to guide financial institutions in aligning strategies with national climate goals. Over September 2025, the Australian government consulted on voluntary best practice guidance

for climate-related transition planning. To promote investment in decarbonisation technologies essential for accelerating the transition of high-emission industries, Japan's Ministry of Economy, Trade and Industry launched a Sub-Working Group in March 2025, and released an interim report in July 2025 to address opportunities and challenges for pragmatic transition finance in Asia, while national authorities developed science-based sector roadmaps for hard-to-abate sectors to reach carbon neutrality by 2050. The Task Force on Climate-related Financial Disclosures (TCFD) Consortium in Japan has developed a Transition Plan Guidebook that summarises the elements to be included in companies' transition plans to assist in their formulation. Türkiye is finalising green taxonomy regulation and has updated sustainable debt guidelines to include instruments like transition bonds. Türkiye's banking regulator published the Communiqué on the Calculation of Banks' Green Asset Ratio, establishing green asset criteria and a green asset ratio calculation methodology. Russia is working with BRICS partners on common sustainable finance standards, and Korea plans to revise its K-taxonomy in the climate sector (covering GHG reduction and climate change adaptation) by the end of 2025. The UK government is considering the recommendations of the independent, government-commissioned Transition Finance Market Review. India operationalised a green-bond GB-T label requiring time-bound transition plans. The UK government is considering the recommendations of the independent, government-commissioned Transition Finance Market Review.

The FSB published¹¹⁰ a report underscoring the potential of transition plans to enhance financial stability assessments by providing forward-looking information. It highlights conditions for their effective use, including improved coverage, transparency, credibility, consistency, and comparability of these plans, which are critical to their utility in monitoring climate-related risks.

Progress on transition plan adoption is accelerating, although uneven across firm size. According to CDP's forthcoming 2025 publication, of the 1 112 companies that had pledged to publish a transition plan within two years, only 5% failed to do so, the majority have already released plans, and 38% postponed implementation for another two years. This signals progress from the private sector, while also underlying how regulatory frameworks will be decisive in driving broader and faster adoption. The momentum is weaker among SMEs: just 15% report having a plan, and fewer than half of these meet the 1.5°C benchmarks.¹¹¹

¹¹⁰ FSB (2025). Task Force on Climate-related Financial Disclosures

Analysing implementation challenges related to sustainability reporting standards, including for SMEs and EMDEs

There has been significant momentum to improve the SME sustainability reporting ecosystem.

By November 2024, Australia, Brazil, India, Mexico, Türkiye, and the UK had a phased approach, adjustments, or exemptions applicable to SMEs' sustainability-related financial reporting. In 2025, the EU Omnibus package proposed simplification measures including a proportionate standard for SMEs, streamlined value chain expectations, and maintained limited assurance requirements. EU lawmakers also exempted small importers from Carbon Border Adjustment Mechanism (CBAM) reporting by setting a threshold of 50 tons of imports.

Standard-setters and alliances have taken action to involve SMEs in the sustainability reporting ecosystem and to equip them with affordable measurement tools. One of the most concrete advances has been a free Small Business Carbon Calculator released by the SME Climate Hub in March 2025. Tailored specifically for very small enterprises to measure scope 1–3 emissions, it complements two earlier free calculators, together forming a robust suite. France's Banque de France also launched a publicly accessible Climate Indicator to support financial and SME-level disclosures. The CDP has found that SMEs disclosing nature-related risks reported potential financial impacts of US\$8.5 billion, with mitigation costs of US\$1.4 billion – highlighting an economic case for early action.¹¹²

Regarding digital solutions, the European Financial Reporting Advisory Group (EFRAG) released an XBRL taxonomy and Excel template in June 2025 for SME reporting. GRI introduced a Sustainability Taxonomy which is an XBRL-based taxonomy covering all GRI standards, highly aligned with ISSB and EU formats, enabling cross-framework compatibility. Such open-source taxonomies let even small firms file reports that investors can automatically process. Belgium's Febelfin-Isabel ESG platform¹¹³ enables SMEs to share ESG data securely with banks and clients.

Capacity building efforts have been deployed. Regional and international networks have also been activated to foster peer learning and share resources. In November 2024, UNCTAD formally launched the Asia Regional Partnership for Sustainability Reporting, following the successful model of an African Regional Partnership earlier that year. These partnerships bring together government officials, professional bodies (like accountants' federations), and experts across countries to coordinate on improving corporate reporting infrastructure to “increase the quantity of high-quality sustainability reports including by SMEs”. The WBG

¹¹² [CDP questionnaire](#) ; [Disclosure Dividend \(2025\)](#) figure estimates from 869 SMEs

¹¹³ Input paper submitted to the G20 SFWG, [WRI \(2025\) Scaling Finance for Climate Adaptation](#)

and IFRS Foundation have committed to support the adoption of ISSB Standards in EDMs with proportionality in mind.

Voluntary reporting standard interoperability is also progressing. In December 2024, EFRAG published the Voluntary Sustainability Reporting Standard for non-listed SMEs (VSME) designed to support non-listed SMEs in responding to growing stakeholder requests (including banks, investors, and large corporate clients) for ESG data in a proportionate and usable format. Italy has published the Sustainability Dialogue between SMEs and banks to facilitate the exchange of ESG information, aiming to improve SMEs' access to credit. This initiative leverages EFRAG VSME, identifies data points relevant for the banking system, and provides SMEs with methodological guidance that takes into account proportionality considerations and national specificities.

Financing nature-based solutions

Since late 2024, coordinated efforts in policy, capacity building, the inclusion of Indigenous Peoples and Local Communities (IPLC), and market instruments have supported financing for NbS globally, responding to the economic risks associated with nature loss. Additional resources are being allocated. Triodos Bank has pledged to invest at least €500 million in conservation, restoration, and regeneration initiatives by the end of 2030. Pilot programmes managed by MDBs and climate funds, including the World Bank's NbS Invest Aim project, aim to expand funding and integrate NbS into climate mitigation and adaptation efforts. Indonesia has introduced the Climate Resilience Fund (CRF) 'DINFRA' initiative to promote both private and public finance for NbS projects such as reforestation, mangrove restoration, and wetland conservation.

Aligned with the 2024 SFWR recommendations, a diverse array of financial instruments is being utilised. Additionally, the UK's Nature Impact Fund has been relaunched with a £30 million cornerstone investment from the government, generating revenues primarily through the sale of carbon credits and biodiversity units. The Tiger Landscapes Investment Fund (TLIF), introduced in June 2025, aims to incubate and finance ventures that support both nature and communities within tiger-range countries. TLIF intends to mobilise up to US\$200 million in public and private capital to further the protection and sustainable management of key tiger habitats.

Monitoring and evaluation methods advanced in 2024–25 as TNFD issued final recommendations and financial firms tested nature-risk reporting. In early 2025, the Accountability Accelerator introduced a validation service for corporate science-based nature targets. Emerging technologies like remote sensing, AI, and eDNA testing are now tracking ecological impacts; for example, the Oxford-led LEON project will deliver earth observation metrics tailored to financial sector needs.

Efforts are underway to build capacity for NbS. UAE, in partnership with Indonesia, launched Mangrove Alliance for Climate Strategy 2031 to strengthen cross-boundary cooperation to promote NbS and knowledge exchange of the importance of mangroves restoration. The World Bank supports countries by sharing knowledge, offering technical assistance, mobilising finance, and improving policies for scalable results, while also seeking ways to boost job creation and attract private investment through NbS. The UK's Nature Accelerator, part of the Nature Impact Fund, provides technical support to help local projects become investment ready. In late 2024, BIOFIN released a Workbook outlining practical steps for countries to finance biodiversity protection. The meaningful engagement of IPLCs is widely acknowledged as essential. Initiatives such as Indonesia's reef debt swap provide tangible benefits to coastal indigenous communities.

Finally, late 2024, WWF and technical experts released the Global Nature Positive Economy Roadmap, focused on reforms to redirect financial flows and reshape the global economy to support nature-positive outcomes.¹¹⁴ Modelled after the G20 Sustainable Finance Roadmap, it urges integrating nature into economic and financial decision-making. Experts have called on the G20 to incorporate measures to address nature loss and assess nature-related risks alongside climate in sustainable finance strategies.

¹¹⁴ WWF (October 2024). [Global Roadmap for a Nature-Positive Economy](#)

Annexes

Annex 1: Case studies for adaptation finance

A collection of case studies on adaptation finance across a range of financial instruments has been compiled by the World Resources Institute (WRI). The dataset contains 145 cases of 11 types of financial instruments, ranging from bonds to insurance, that have been used to reduce and/or manage diverse physical climate risks since 2015. The financial instruments included in this study are worldwide. They were first sourced from country members and institutional knowledge partners to the G20 SFWG, followed by a systematic literature review that combined risk- and instrument-specific search terms. While not an exhaustive or statistically representative sample of the current financial landscape for adaptation, the dataset is nonetheless illustrative of the diversity of financial instruments available for adaptation and their uses across a range of risks, geographies, and actors. By showcasing how financial instruments have been designed to meet diverse adaptation needs, this work supports public and private actors seeking to invest in climate adaptation.

The information presented below provides an overview of the financial instruments included in the dataset, the specific physical climate risks each type of financial instrument addresses, and the pool of finance by instrument type. This is followed by a selection of illustrative examples. Further details can be found in the report on the SFWG website.¹¹⁵

The case studies show the diversity in how financial instruments are used to address physical climate risks. Multiple instruments are used to address every physical risk included and many instruments are being used to address several risks simultaneously. As shown in Figure 1 below, none of the financial instruments analysed are designed and deployed exclusively to address a singular physical risk.

Furthermore, most financial instruments (75%) analysed in this study pool provide funding at a non-project level. Among these pooled sources of finance, programmes are the most frequent and typically provide grant funding, although they may also include concessional loans and insurance products (see Figure 2). Funds are most frequently structured as blended finance instruments (75%), while mechanisms are dominated by insurance and risk transfer instruments (27%). Further details can be found in the report on the SFWG website.

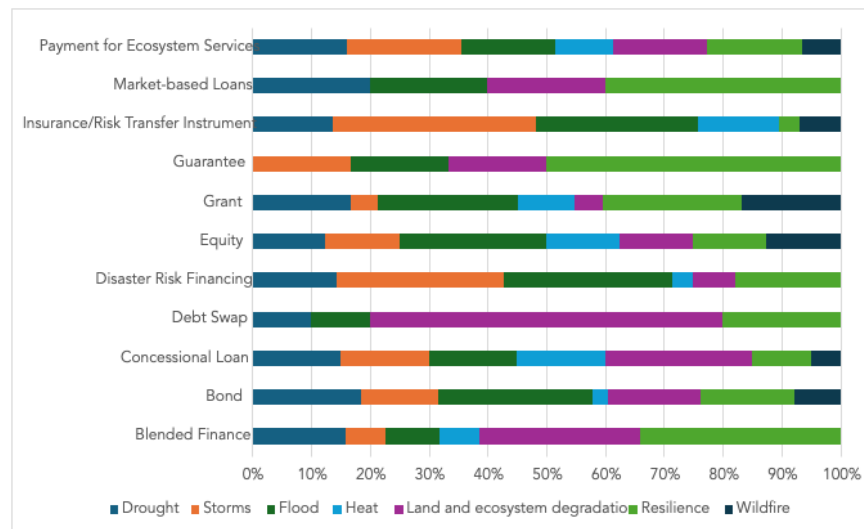
¹¹⁵ Input paper submitted to the G20 SFWG, [WRI \(2025\) Scaling Finance for Climate Adaptation](#)

Table 5: Description of financial instrument types and number of financial instruments in dataset

Instrument type	Description	Number of instruments	Share of sample (%)
Blended finance	An approach that strategically combines concessional public or philanthropic funds with commercial finance to mobilise private capital for sustainable development projects. The concessional element helps to reduce the risk of private investors, making them more financially viable and attractive to private investors.	31	21
Bond	Debt instruments issued by governments, corporations, or other entities to raise capital. Investors purchase bonds and receive periodic interest payments, with the principal amount repaid at a specified maturity date.	27	19
Concessional loan	Loans offered with more favourable terms than market-based loans, typically including lower interest rates, longer grace periods, or extended repayment schedules. They often aim to support specific development objectives.	10	7
Debt swap	Debt instruments that involve exchanging existing debt obligations for new debt with different terms, often with a focus on improving debt finance or linking debt repayment to specific environmental or social commitments.	6	4
Disaster risk finance	Encompasses a range of financial instruments and strategies designed to help governments, communities, and individuals prepare for and respond to the financial impacts of natural disasters and other crises.	10	7
Equity finance	Involves selling ownership stakes in a company or project in exchange for funding. Equity investors share in the potential profits (and losses) of the venture.	3	2
Grant	Non-repayable funds provided to a recipient for a specific purpose, such as a project or programme. They are often used for initiatives that may not generate financial returns but have significant social or environmental benefits.	27	19
Guarantee	Commitment by a third party to cover potential losses of a creditor if a borrower defaults on a loan or other financial obligation. Helps to reduce the risk of a creditor/investor investment and encourage lending – but does not reduce the risk of the borrower.	5	3
Insurance or risk transfer	Mechanisms that help to protect against potential financial losses from specific events, such as natural disasters or project failures. Premiums are paid in exchange for coverage.	15	10
Market-based loans	Loans provided at commercial interest rates that reflect market conditions and the borrower's creditworthiness.	5	3
Payment for ecosystem services	Involves providing financial incentives to landowners or resource users in exchange for managing their land in ways that protect or enhance valuable ecosystem services, such as clean water, or carbon sequestration.	6	4
Total		145	100

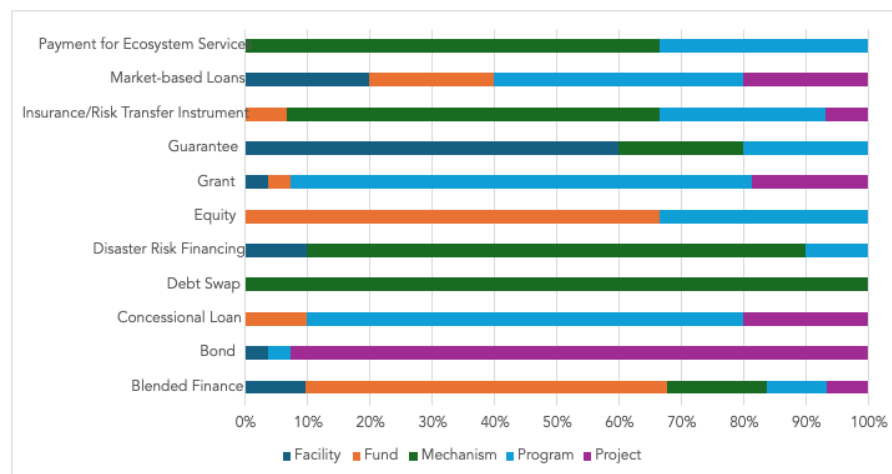
Source: WRI Authors

Figure 1: Physical climate risks addressed by each financial instrument type



Source: WRI Authors

Figure 2: Pool of finance by instrument type



Source: WRI Authors

Table 6: Illustrative cases of financial instruments for climate adaptation (additional examples available in the WRI report)

Case	Description	Instrument type	Physical risk(s) addressed
Global fund for coral reefs (GFCR)	Established in 2020 as the first global blended finance instrument dedicated to strengthening the resilience of coastal reef ecosystems, communities, and economies to climate change by mobilising new public and private resources. The GFCR consists of two funds; the UN manages a fund that provides grants, technical assistance, and concessional finance, while the equity fund is managed by Pegasus Capital Advisers and invests in commercial projects and companies with business models that reduce threats to coral reefs. Since its establishment, the GFCR has mobilised US\$500 million (Climate Fund n.d.; United Nations Development Programme n.d.; Conservation Finance Alliance n.d.).	Blended finance	Land and ecosystem degradation
Gabon's debt for nature swap	Gabon refinanced US\$500 million of its sovereign debt in 2023 through the issuance of a "blue bond" for the first time in Africa. The instrument aims to unlock approximately US\$163 million over 15 years for marine conservation initiatives to combat ecosystem degradation, including through the expansion and improved management of marine-protected areas and the enforcement against illegal fishing activities (UNEP 2023; The Nature Conservancy 2023).	Debt swap	Land and ecosystem degradation
InvestEU	InvestEU boosts private finance mobilisation for strategic investments. EU budgetary resources and private investments are mobilised through guarantees and equity investments as well as European Investment Fund (EIF) deployed to venture capital, private equity, and private credit. The equity fund has so far mobilised approximately €10 billion in sustainable infrastructure, including nature and the environment (EIF n.d.).	Equity	Storms, floods, heat, land, and ecosystem degradation, wildfire
Quintana Roo reef protection policy	Mexico's Quintana Roo Reef Protection policy is a parametric insurance policy designed to protect 100 miles of the Yucatan Coastline in Mexico. The claim payment is triggered when hurricane wind speeds reach a pre-agreed level, allowing the policyholder to receive funds to help repair the area's coral reef quickly. The policy was launched in 2018 by Swiss Re and The Nature Conservancy. The Coastal Management Zone Trust purchased the policy using fees from the tourism industry and coastal property owners, in addition to some government funding. The policy helps to maintain the reef and, by extension, the resilience of the community that relies on it (Green Finance Institute n.d.).	Insurance or risk transfer (parametric insurance)	Storms
GREEN Scheme	The GREEN Scheme (Grassroot Level Response Towards Ecosystem Enhancement and Nurturing) in Meghalaya, India incentivises communities to protect their existing ecological assets, including sacred groves, and to develop new forests. In addition to providing technical assistance, the PES scheme compensates landowners for conserving forests for a period of 30 years (Meghalaya Basin Management Authority 2025).	Payment for ecosystem services	Drought, storms, floods, land, and ecosystem degradation, resilience
Water Security and Climate Adaptation in Jordan	Financed by a €400 million loan from the EIB, this is a comprehensive programme to increase Jordan's water security and resilience to climate change. The programme focuses on improving water infrastructure, reducing non-revenue water losses, and implementing climate adaptation measures in alignment with	Market-based loan	Drought

	Jordan's National Water Strategy and related policies. An example of results-based financing, loan disbursements are triggered by enhanced efficiency and accountability in water management (EIB 2024).		
Cyclone Reinsurance Pool (CRP)	The CRP is an initiative operated by the Australian Reinsurance Pool Corporation (ARPC) designed to provide reinsurance for cyclones and related flood damage. Commencing operations in July 2022 and supported with an annual US\$10 billion guarantee by the Australian Government, the CRP aims to improve the accessibility and affordability of insurance for households and small businesses in cyclone-prone areas across Australia (Australian Government n.d.).	Insurance or risk transfer (reinsurance scheme)	Storms, floods

Annex 2: Progress on the implementation of the 2024 IHLEG Review of the VCEFs

Introduction

The climate finance needs of EMDEs remain acute amid an uncertain international funding landscape. In this context, highly concessional finance from the four largest VCEFs – the GCF, Global Environment Facility (GEF), Climate Investment Funds (CIF), and Adaptation Fund (AF) – is critical for climate impact, especially for investments beyond traditional risk-return profiles.

Recognising this, the IHLEG, appointed by the G20 Brazil Presidency and the SFWG, published a review of VCEFs in October 2024.¹¹⁶ The IHLEG Review examined the role of VCEFs with the objective of providing a set of actionable recommendations to: (i) optimise the operations of VCEFs; and (ii) enhance their contribution to the mobilisation of other sources of sustainable finance.

The report provided a set of voluntary recommendations across five levels of action, taking into account the prerogatives and features of each fund's core governance and respective governing bodies. These recommendations aim for the funds to operate as a system within the climate finance landscape; enhance the mobilisation of public and private finance; increase their integration and collective impact; harmonise their procedures; and improve accessibility and efficiency.

In July 2025, under the G20 South African Presidency, the SFWG advanced the understanding of climate finance cooperation between VCEFs, MDBs, and NDBs, along with private financial institutions. The report,¹¹⁷ developed by CPI, FiCS, and the AfDB, built on the IHLEG Review of the VCEFs and followed the VCEFs' joint commitment to develop ambitious and concrete actions to enhance access to climate finance and increase their collective impact.

This progress report, drafted by CPI, provides a preliminary overview of high-level progress on the five levels of actions recommended in the 2024 report. The findings are based on: (i) individual interviews with each fund, (ii) publicly available information, and (iii) the VCEF

¹¹⁶ Brazilian G20 Presidency and the G20 SFWG, IHLEG Review of the VCEFs (October 2024). [Accelerating Sustainable Finance for Emerging Markets and Developing Economies](#)

¹¹⁷ Commissioned by the South African G20 Presidency and the G20 SFWG (July 2025). [Strengthening collaboration to scale climate and development finance](#)

side event during the G20 SFWG in June 2025. This progress report acknowledges that it has been under a year since the 2024 report's release, so therefore the specific sub-specific recommendations are not assessed, and the focus is to provide an update and non-exhaustive examples of activities that have been implemented, initiated, or explored by the VCEFs since October 2024.

Level 1: Foster the scale, coherence, and effectiveness of global climate finance

1.1 Incorporate new climate finance initiatives within existing structures and organisations

As part of harmonisation efforts, the VCEFs have invited the Fund for Responding to Loss and Damage to the regular heads of VCEFs' meetings.

1.2 Ensure the availability of high-quality, consistent climate and environmental finance data (all VCEFs)

Much of this work is part of VCEF data/indicator harmonisation efforts detailed in Level 4.

- The **AF** intends to report on direct and indirect AF beneficiaries disaggregated by geographic level (global, regional, and country) and temporal scale at COP30.
- The **GCF** established the Department of Monitoring, Evaluation, and Learning in September 2024¹¹⁸ to track project maturity, disbursement ratios, and impact against targets. It also reformed its Monitoring and Accountability Framework, endorsed by its Board of Directors (Board) in July 2025 to embed data quality throughout GCF's accountability systems and contribute to the alignment of indicators between MDBs and VCEFs.

1.3 Cater to the particular challenges of EMDEs, particularly on providing concessional climate finance for adaptation in the most vulnerable countries (all VCEFs)

- In April 2025, the **AF** Board approved an increase in the country spending cap from US\$20 million to US\$40 million to all eligible developing country parties for adaptation.¹¹⁹ It also approved increases for single-country projects from US\$10 million to US\$25 million and regional projects from US\$14 million to

¹¹⁸ [News Update] [GCF unveils new organizational structure to accelerate climate action](#)

¹¹⁹ [Press Release] [Adaptation Fund Board Approves Record US\\$ 137 Million in New Projects; Doubles Country Cap to US\\$ 40 Million - Adaptation Fund](#)

US\$30 million. In addition, the Board approved US\$137 million in grants across 16 projects, including in small island developing states (SIDS) and LDCs.

- The **CIF's** ARISE programme was approved in June 2025 as the successor to the Pilot Program for Climate Resilience (PPCR), designed to provide grants, concessional loans, and guarantees for highly vulnerable countries to integrate climate resilience into development plans and create innovative financial solutions. The new mechanism was designed in consultation with VCEF and MDB partners to enable opportunities for all actors to co-invest.
- Under the **GCF's** “50 by 30” vision, revealed at the 2023 UN Climate Ambition Summit,¹²⁰ the fund has provided over US\$705 million to 18 fragile and conflict-affected states between July 2024 and July 2025, with over 50 submitted proposals underway and an additional US\$400 million expected to be committed by the end of GCF's current programming period in October 2027.
- On the sideline of COP29, the **GEF** announced the latest recipients of grant funding through its Challenge Program for Adaptation Innovation. The programme has US\$20 million in funding to be disbursed across 13 innovative adaptation-focused projects across LDCs and SIDS. The latest cohort of projects will bring the programme's total investment to US\$40 million since its inception, with an anticipated additional US\$60 million to be invested by 2026.¹²¹

Level 2: Increase finance mobilisation by the VCEFs

2.1 Leverage the full potential of VCEF capital by deploying a full range of financing instruments, dedicating grant resources to address critical gaps, fostering market-based approaches, and actively pursuing co-financing mechanisms (all VCEFs)

- The **AF's** focus on grants, and lack of co-financing requirements, supports sequence financing by providing early support for adaptation projects that can attract additional capital.
- The **CIF** debuted the CIF Capital Market Mechanism (CCMM), a first-of-its-kind initiative among VCEFs that provides a sustainable source of funding to CIF's clean technology fund (CTF). CCMM was able to leverage the CTF's strong portfolio to develop the AA+/Aa1-rated bond. In January 2025, the CCMM's inaugural bond issuance raised US\$500 million which was six times oversubscribed, highlighting an opportunity to draw on new funding sources. The CCMM allows the CIF to provide

¹²⁰ GCF (September 2023). [Executive Director unveils “50 by 30” blueprint for reform, targeting USD 50 billion by 2030](#)

¹²¹ GEF (November 2024). [GEF announces \\$20 million investment in climate adaptation innovators](#)

predictable resources to the CTF in a time of constrained aid budgets and global geopolitical challenges.¹²²

- The **GCF** is working with national and private entities to support how better and more accessible data for instruments like insurance, guarantees, results-based payments, and catalytic equity can drive greater interest from the private sector. An ongoing project with CRDB Bank in Tanzania focuses on designing a cost-sharing insurance programme,¹²³ and the Board will discuss how better data can help support an insurance platform at its next meeting. Additionally, the GCF's revised Readiness and Preparatory Support Programme, approved in early 2025, provides grants up to US\$7 million per country per four-year cycle to support capacity development and readiness activities.
- The **GEF** announced recipients of its Innovation Window in December 2024, to disburse US\$12.3 million in grants to seven projects leveraging novel climate solutions, particularly for adaptation and resilience. These pilots signal opportunities for large-scale investments from other VCEFs, MDBs, and private actors, as well as demand from non-traditional actors in the adaptation space. Under the GEF-9 replenishment process, the GEF is also revising its co-financing guidelines for civil society organisations (CSOs) and the private sector to allow greater flexibility, and will more clearly report on sources of joint and parallel co-financing. These new guidelines must be approved in the First Council meeting of GEF-9.¹²⁴

2.2 Set clear mobilisation goals reflecting each fund's mandate, priorities, and activity composition (all VCEFs)

As at September 2025, no funds have set a mobilisation goal, although three of the four are developing new or updated strategies and instruments.

- The **AF** is developing its resource mobilisation strategy for the 2026-2029 period, which will build on increasing voluntary contributions and additional contributor governments, securing more multi-annual commitments, and exploring alternative sources including from carbon markets and the private sector.
- The **CIF** is exploring a high leverage facility that will aim to mobilise financing in the range of 15 dollars for every concessional dollar invested.

¹²² [CIF Capital Markets Mechanism](#)

¹²³ [Green Climate Fund. FP179. Tanzania Agriculture Climate Adaptation Technology Deployment Programme](#)

¹²⁴ GEF (December 2024). [Streamlining the GEF Project Cycle: Report from the Working Group on Streamlining Process](#)

- The **GEF**'s draft policy for its ninth replenishment cycle includes efforts to capture metrics and information on the quality of finance provided by the GEF, clarify distinctions between joint and parallel co-financing, account for positive externalities from private sector participation, and set clear targets for investment mobilisation and co-financing in response to recommendations from an Independent Evaluation Office (IEO) evaluation. Final metrics will be determined in the second half of 2025.

2.3 Expand the use of finance structures and blended instruments to increase the affordability of finance, particularly for LDCs (GCF/CIF)

- The **CIF**'s new funding mechanism for meeting resilience needs, ARISE – the successor to the PPCR – includes a focus on using concessional resources to unlock private capital and foster innovation for climate resilience and adaptation, notably in LDCs and SIDS. The CIF's Dedicated Grant Mechanism for indigenous peoples and local communities provides direct grants and other concessional finance to LDCs to support stakeholder engagement capital mobilisation.
- The **GCF** is exploring ways to blend exposure to LDCs through instruments such as guarantees, catalytic equity, and risk wrappers to lower risk and cost of capital in hard-to-reach markets. While grant funding has dominated financing in LDCs, the GCF is responding to the demand from LDCs with long-term concessional loans, such as for the 2024 Cambodia Climate Financing Facility.¹²⁵ The GCF has also supported new initiatives like the Green Guarantee Company.

Level 3: Implement an integrated VCEF country-driven approach

3.1 VCEF support for country-driven approaches and investment pipelines (all VCEFs)

All four VCEFs integrate country-driven approaches into their project selection and approval process as part of their established operating practice.

- The **AF** continues its country engagement and leveraging its experience with locally led adaptation (LLA) programmes to facilitate South-South learning and provide grants to support high-risk pilots in country project pipelines. Its new readiness strategy, still in progress, ensures that the readiness programme will be integrated into a country-level approach.
- The **CIF** has launched its Industrial Decarbonisation country-led programmatic model based on national coordination and MDB support. After a 24-month period to

¹²⁵ [Green Climate Fund. FP228: Cambodian Climate Financing Facility](#)

prepare Investment Plans, the programme has committed to disburse US\$1.75 billion across seven countries over 24–36 months based on project readiness and agreed milestones. Timelines are intentionally flexible to enable disbursement schedules to adapt to country-specific conditions and sequencing needs. Of the seven countries awarded, at least three intend to complete scoping by the third quarter of 2025. The CIF aims to scale this country-led model beyond industrial decarbonisation and energy.

- The **GCF's** “Efficient GCF” Initiative and September 2024 reorganisation into regional teams created funding predictability and support structure for country-focused efforts. Through its readiness programme and revised readiness strategy (launched in early 2025), the GCF is working with countries to develop institutional frameworks and coordination capacity. The GCF provided support for the Brazil Investment Platform (BIP) secretariat and a new regional platform, in partnership with eight Caribbean countries and with the Caribbean Development Bank as secretariat.
- The **GEF's** longstanding, country-driven financing approach sees projects led by countries in line with national priorities. Much of the GEF's work in 2024 and 2025 under its country engagement strategy has focused on facilitating country-level dialogues, workshops, and supporting peer knowledge exchange across countries.

3.2/3.3 VCEFs working as a system with enhanced responsiveness (all VCEFs)

The VCEFs are leveraging their unique mandates to collaborate within the larger system on structured, complementary approaches to funding sequences and capital stack in supporting country platforms.

- To leverage the comparative advantage of each fund's financing model, the **AF** and **GCF** are working to update a scale-up framework where projects that demonstrate impact under AF grants will be considered for further expansion and transformation using GCF funding. The AF and GEF are under similar discussions to develop a more cohesive approach to scale.
- In Rwanda, **CIF's** nature-based and forest investments are building on the results of **GEF's** work on ecosystem restoration and community resilience. CIF's US\$31 million in concessional finance has been able to mobilise an additional US\$200 million in co-financing from the World Bank.
- The **GCF** and **GEF** continue to operationalise their established Long-Term Vision, focusing on country-level collaboration, illustrated by coordinated programming dialogues in Rwanda and Uganda to support investment pipelines.

Level 4: Pursue enhanced harmonisation across VCEFs

At the technical level, the multilateral climate funds (MCF) taskforce has working groups collaborating on three priority areas: (i) harmonising results and indicators; (ii) coordinating capacity support; and (iii) enhancing visibility. At the strategic level, the heads of the four funds have formalised regular meetings to determine joint priorities and track progress. All four funds participated in joint COP showcases in Dubai and Baku and will seek to continue this in Belém. In addition, three of the four VCEFs (all excluding GCF) are hosted by the World Bank, which also serves as a Trustee – highlighting the institutional linkages that could support greater alignment.

Building on these arrangements, the IHLEG recommendations for enhancing harmonisation of processes, as far as possible, are designed to complement, not replace, each fund's core governance or priorities. For now, the VCEFs are mostly focused on the incremental efficiencies identified in the 2024 IHLEG report. However, deeper process harmonisation may be needed over time, with country platforms offering an opportunity for such collaboration.

4.1 Develop common approaches to accreditation, pipeline development, and project approval processes

- **Accreditation (AF, GCF, GEF):** The AF, GCF, and GEF have implemented mechanisms to fast-track the accreditation of entities already accredited by one of them. *[NB: The CIF only works via MDBs.]*
 - The GCF Board approved its Revised Accreditation Framework in July 2025, which includes a fast-track for entities that have met the relevant screening requirements from the World Bank or AfDB, and with expectations to expand to other financial institutions in the future. The GCF expects to add 40 to 50 new accredited entities in 2026 through this revised framework; the simplified accreditation process and harmonisation with other VCEFs have the potential to increase direct access entities across the climate finance system.
 - The GEF is reviewing a cross-fund accreditation approach to enable a fast-track accreditation pathway for candidates already approved by the GCF and AF, in support of potential new agencies in GEF-9. The review is at an advanced stage and intended to be ready for implementation pending the conclusion of the GEF-9 replenishment and Climate Change Adaptation Strategy processes in mid-2026.
- **Pipeline development (all VCEFs):** All four funds emphasised the importance of readiness and creating an investment pipeline that leverages the strengths of the

different funds. The AF has begun the process of more systematically tracking the scale-up of AF-funded projects to identify funders and funding volumes.

- **Project approval processes (all VCEFs):** While this is an area of active discussion among the VCEFs under the joint work on complementarity and coherence, there have been no resultant changes or activities.

4.2/4.3 Implement a coordinated approach to sharing data and a uniform approach to measurement and reporting requirement (all VCEFs)

- The Climate Project Explorer,¹²⁶ launched at COP29, is an AI-powered repository of documents from the four funds, providing information on cross-fund projects and policies to increase transparency and data availability across the funds.
- The working group supporting joint reporting and shared impact metrics conducted a workshop in August 2025 and plans to provide joint reporting of VCEF impacts at COP30. Joint guidance on adaptation indicators is also being developed.
- The working group aligning the VCEFs with the Common Approach to Measuring Climate Results adopted by the MDBs has made progress and is working to provide input into the metric harmonisation efforts.

Level 5: Maintain focus on enhancing individual fund access and efficiency

The **AF** is working to strengthen its national accredited entities through its upcoming enhanced readiness strategy. In addition, the AF continues to align with the GCF on the accreditation process and has made improvements that streamline the disbursement process and reduce wait times.

The **CIF** Technical Assistance Facility (TAF) released an assessment of its portfolio of projects, outcomes, and impacts across the TAF's four cycles, with 23 out of 32 projects reporting achieved results at 63% against targets. CIF-TAF will also be reviewed by CIF's Evaluation and Learning Initiative in 2025 to further draw out insights and lessons learned. On alignment with IHLEG recommendations around working with countries with no MDB programme, the CIF is more constrained but is exploring opportunities to engage via technical assistance, knowledge sharing, and regional engagement.

Under the "50 by 30" vision, the **GCF** reorganised and launched internal reforms focused on operational efficiency and impact. Through the "Efficient GCF" Initiative, the GCF reduced the time from project approval to first disbursement. In 2024, 50% of projects approved received their disbursement within a year compared to 30% for projects approved in 2022.

¹²⁶ [Climate Fund Search - Climate Project Explorer](#)

The **GEF** is currently developing its operating strategy for the GEF-9 replenishment, which will guide activities from 2026–2030. The fund is also reviewing its approach to grant and non-grant financing to better mobilise private capital, particularly in LDCs and SIDS. It is also working to reduce application approval times, exploring a one-step process and working to improve the transparency and functionality of the GEF Portal. In addition, it aims to accredit up to three new agencies by building specifically on similar exercises done by the AF and GCF.

Next steps

This summary provides a snapshot of recent VCEF progress against the five levels of action set out in the October 2024 IHLEG report, which laid out recommendations to leverage the unique position of each fund while supporting a more cohesive system that strengthens and accelerates climate finance and action on a global scale. The IHLEG report did not focus on where additional actions need to be prioritised and accelerated to implement the recommendations.

The highlighted efforts of each fund range from previously planned improvements to emerging reforms, with each fund outlining steps to improve systems and processes to accelerate scale and impact. While it has been less than a year since the 2024 IHLEG recommendations, the urgency of climate finance needs, future funding gaps, and the important role of the VCEFs make it critical that the funds deliver on their full potential and maximise the efficiency and impact of their financing.

These are the first of many steps needed from the VCEFs to mobilise and scale catalytic climate finance at the volumes needed for transformative, real-economy impact. The July 2025 report on opportunities for collaboration between VCEFs, MDBs, and NDBs explored both co-financing and non-financial areas for collaboration which can leverage distinct yet complementary institutional strengths of VCEFs, MDBs, and NDBs. Short-term recommendations included how pursuing interoperability and efficiency of VCEFs processes can reduce barriers to access and simplify engagement, while mid-term recommendations include an updated approach to leveraging accredited entities, including MDBs, to co-finance with NDBs.

Later in 2025, the CPI will produce a version of this progress report, with an “observational framework” to continue tracking VCEF efforts in line with the IHLEG recommendations. This input paper will incorporate feedback from the G20 SFWG and the VCEFs.

We appreciate all four funds’ availability and transparency in providing inputs for this progress report.