

Financing Climate Adaptation

Mobilising Investment at Scale

POLICY HIGHLIGHTS



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The need to scale up investment in adaptation

Global average temperatures temporarily breached the threshold of 1.5°C above pre-industrial levels in 2024. Climate change is having profound environmental, social and economic consequences. While all economies and communities are affected, climate risks disproportionately affect vulnerable communities, with up to 132 million people at risk of falling into extreme poverty because of evolving weather patterns by 2030 (Jafino et al., 2020_[11]).

Accelerating public and private investment in adaptation is a critical part of strengthening resilience (Box 1). Doing so can be highly cost effective, with a recent study identifying adaptation investments across a range of sectors with benefit–cost ratios exceeding ten to one (Brandon et al., 2025_[2]). Yet, the benefits of climate resilience have not translated into finance flows at the required scale, with adaptation investments consistently lagging behind those for mitigation. In 2022, OECD analysis estimated that USD 32.4 billion in climate finance was provided and mobilised for adaptation in developing countries (OECD, 2024_[3]). More broadly, total adaptation finance was estimated at USD 76 billion, compared to USD 1.3 trillion for mitigation (CPI, 2024_[4]). This remains far below the estimated USD 215 billion needed annually for developing countries (UNEP, 2024_[5]).

This Policy Highlights report summarises the key messages from the input paper to the 2025 G20 Sustainable Finance Working Group, under the South African presidency (Box 1). It identifies options and good practices for addressing barriers to investment in three key areas:

- Improving access to data and capacity;
- Strengthening the domestic enabling environment for investment;
- Increasing the quantity and effectiveness of international support.

DRIVERS OF PRIVATE, PUBLIC AND INTERNATIONAL INVESTMENTS IN ADAPTATION

Investment in adaptation is driven both by the need to reduce the negative impacts of climate risks and by opportunities to build resilience. For example, farmers may invest in more efficient irrigation to maintain production given extreme weather events, or they may shift to a different crop that is more drought tolerant. Similarly, businesses may invest in storm-resistant infrastructure to reduce the negative impacts of extreme weather, or diversify their supply chains to seize new market opportunities and strengthen long-term resilience. Key underlying drivers of investment include awareness of climate risks, clarity over who is responsible for managing those risks, and access to adequate technical and financial resources.

All sources of finance expect a return on investment, though the form of return varies. Commercial investors seek direct financial gains, while the public sector prioritises broader societal benefits. Public investment remains the largest source of finance for adaptation, funding projects that provide essential public goods, address equity objectives, and build resilience in areas where commercial returns are limited. Domestic public institutions and international climate funds play a critical role in supporting adaptation interventions that would otherwise be difficult to finance (Table 1).

BOX 1. KEY REFERENCES AND FURTHER READING

- OECD and AfDB (2025), *Scaling finance and investment for climate adaptation: Input paper for the G20 Sustainable Finance Working Group*, <https://doi.org/10.1787/eeec8b52-en>.
- OECD (2024), *Climate Adaptation Investment Framework*, <https://doi.org/10.1787/8686fc27-en>.
- OECD (2023), *Scaling Up Adaptation Finance in Developing Countries: Challenges and Opportunities for International Providers*, <https://doi.org/10.1787/b0878862-en>.

TABLE 1. ILLUSTRATIVE FINANCE SOURCES FOR CLIMATE ADAPTATION BY TYPE OF RETURNS

Types of financial returns	Potential finance sources	Examples of relevant investments
No direct financial (or private) returns – expected social return and possible cost recovery or indirect economic / financial benefits	<ul style="list-style-type: none"> ● Domestic public finance (national and sub-national) ● Bilateral and multilateral development co-operation ● Multilateral climate funds ● Philanthropy 	<ul style="list-style-type: none"> ● Flood defences ● Developing social safety net programmes ● Provision of climate data
Some financial returns, but below market rate	<ul style="list-style-type: none"> ● Development finance institutions ● National development banks ● Impact investors 	<ul style="list-style-type: none"> ● Nature-based Solutions ● Development of innovative technologies for adaptation
Market-rate returns	<ul style="list-style-type: none"> ● Financial sector (banks, institutional investors) ● Corporate sector ● Households 	<ul style="list-style-type: none"> ● Climate resilient infrastructure (e.g. toll roads) ● Water efficiency measures (e.g. drip irrigation) ● Drought-resistant crops

Source: Adapted from OECD (2023^[7]), *Scaling Up Adaptation Finance in Developing Countries*.

Blended finance, defined as the strategic use of development finance to mobilise additional investment for sustainable development, broadens the pool of capital available for adaptation (OECD, 2018^[6]). It uses concessional finance tools like investment guarantees or subsidised loans to reduce the risk of an adaptation project or to increase its returns. Public sector resources are often pivotal in blended finance arrangements, absorbing early-stage risks and enabling commercial investors to participate in projects that generate both climate and societal benefits.

CONSTRAINTS AND OPPORTUNITIES

The compelling economic case for investment in adaptation does not always translate into a viable business case, due to a range of structural barriers. A central challenge is the mismatch between the costs of investment and the horizon over which benefits accrue. While some adaptation measures, such as flood protection or drought-resilient water systems, can deliver benefits almost immediately, many other

interventions generate returns over the long term, often beyond the timeframes typically considered by public and private actors. This is exacerbated by macroeconomic weaknesses, such as high debt burdens, high inflation and low growth, that push up the cost of capital and constrain all types of investment (OECD, 2024^[9]). The challenge is particularly acute in developing countries, where half of low-income countries are assessed as being at high risk of debt distress or already in debt distress (World Bank, 2024^[10]).

For private investors, a key constraint is the often significant gap between the broad economic returns to society and the narrower financial returns to the individual investor. Many adaptation investments, such as green roofs or sustainable water management systems, create broader societal benefits that the private sector struggles to monetise. This can be due to market failures, regulatory misalignments and the public good nature of many necessary investments. Developing business models to bridge these gaps

BOX 2: WHAT IS AN ADAPTATION INVESTMENT?

In this report, adaptation investments are those that meet the following three criteria: (i) **increase resilience** of physical assets to weather and climate hazards for the investor and/or others; (ii) cause **no significant harm** to people or ecosystems; and (iii) are **consistent** with national or local adaptation strategies (e.g., NAPs, NDCs) (Mullan and Ranger, 2022^[8])¹.

1. This definition is drawn from those used in existing adaptation taxonomies and does not prejudice the outcomes of international discussions in relation to climate finance or other topics.

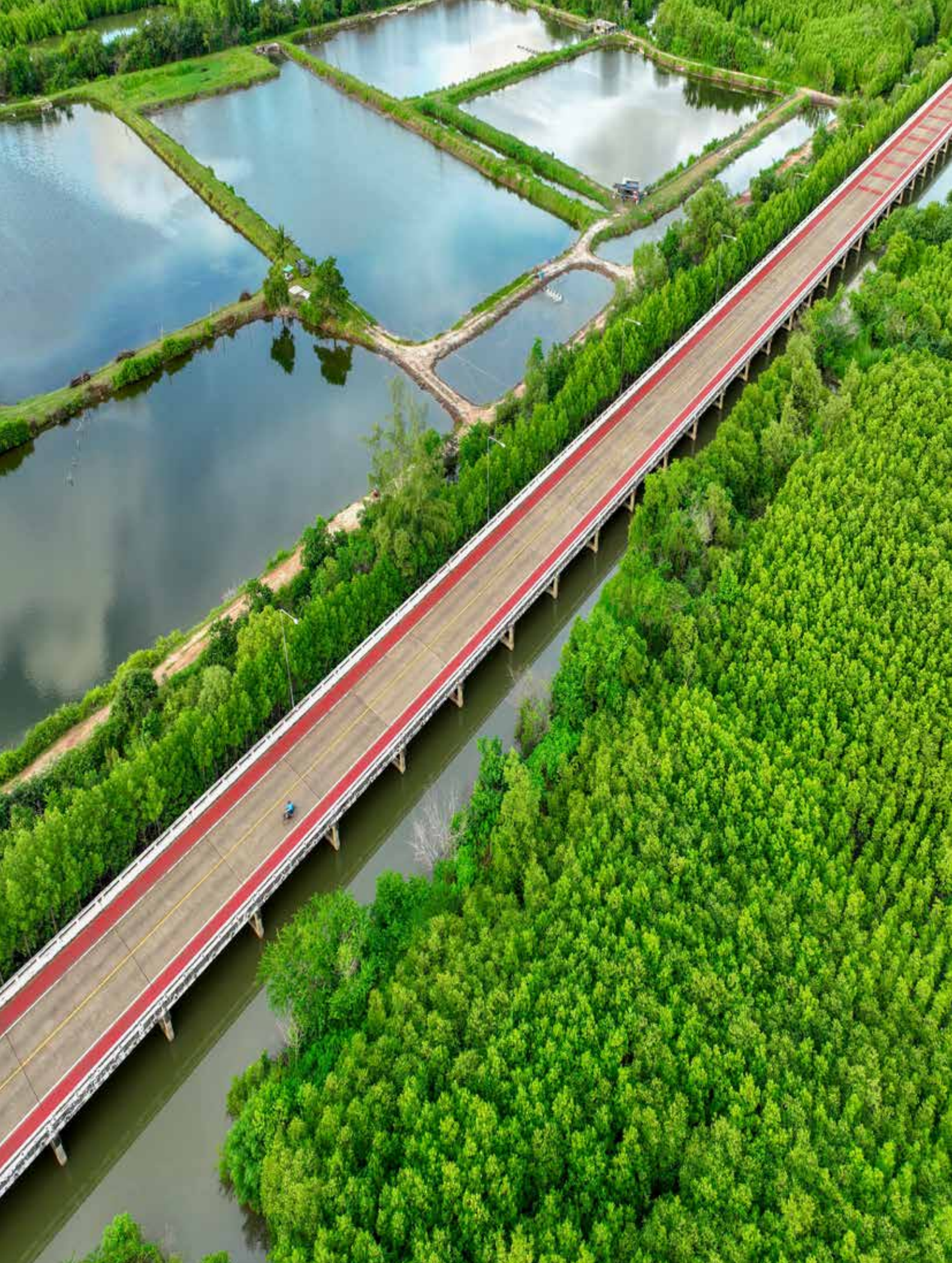


often raises transaction costs and heightens perceived risk, reducing private sector appetite to finance projects that deliver widespread benefits without clear private returns. Recommendations for overcoming these

barriers are set out in Section 2. Adaptation investments are also highly context-specific. Table 2 highlights examples of opportunities and constraints for mobilising investment across selected sectors.

TABLE 2. EXAMPLES OF BARRIERS AND OPPORTUNITIES IN KEY AREAS






Area	Constraints	Opportunities
Early Warning Systems	<ul style="list-style-type: none"> ● Existing coverage gap: Systems are only in place in half of all countries globally. ● Reliance on public funding: Core infrastructure is a public good. 	<ul style="list-style-type: none"> ● High return on investment: An estimated benefit-cost ratio of 9:1. ● Public-private partnerships (PPPs): Leveraging private sector innovation for forecasting, data sharing, alert dissemination, and insurance-linked tools.
Agriculture	<ul style="list-style-type: none"> ● High perceived risks and uncertainty: Make it difficult for financiers to price risk for new technologies. ● Misaligned policies: Presence of distorting subsidies that undermine resilience ● Limited access to finance: Smallholder farmers often lack collateral and credit history. ● Policy conflicts: Trade and environmental policies can send conflicting signals. 	<ul style="list-style-type: none"> ❖ Innovative financial products: Tailored instruments like weather-index insurance and resilience-linked bonds. ● Financial incentives: Payments for adopting conservation and resilience-building practices. ● Redirecting public spending: Shifting subsidies towards climate-smart agriculture. ● Digital platforms: Improving farmers' access to information, finance, and markets.
Infrastructure	<ul style="list-style-type: none"> ● Long-term uncertainty: Assets have long lifespans, facing varied future climate scenarios ● Capacity constraints: Lack of technical skills to integrate climate resilience into planning. ● Network interdependencies: Risks can spread across interconnected systems (e.g., power and telecoms), but ownership is often separate. ● Unsuitable procurement: Policies often prioritise low upfront costs over whole-life resilience. 	<ul style="list-style-type: none"> ● Systems-level planning: Using new models to analyse entire networks and identify key vulnerabilities. ● Technical support: Integrating resilience into the early project preparation phase ● Private sector engagement: Using well-designed PPPs to unlock investment and manage risks. ● Public procurement: The integration of adaptation criteria into calls for tender ● New funding strategies: Exploring sources like land-value capture to improve financial viability.
Water	<ul style="list-style-type: none"> ● Insufficient revenue: Water utilities often lack funds to maintain systems, let alone invest in upgrades. ● Inefficient pricing: Prices often do not reflect the value of water, discouraging conservation. ● Governance challenges: Fragmented responsibilities and outdated regulations hinder co-ordinated investment ● Data and capacity gaps: Lack of data and skills to model climate impacts on water systems. 	<ul style="list-style-type: none"> ● Enhanced governance: Improving co-ordination through integrated, basin-level planning. ● Economic instruments: Using charges and tiered pricing to encourage efficiency and raise funds. ● Regulatory reform: Updating rules to enable innovative solutions and financing models ● Blended finance: Using public or philanthropic funds to “de-risk” projects and attract private capital.



Options and good practices for scaling up finance and investment

A comprehensive approach is needed to significantly scale up finance for adaptation, built on three pillars: capacity and data, domestic policies and international support. Adaptation is a context-specific policy area, with needs and priorities varying across countries. Implementation under each pillar should include regular evaluation of impacts and adjustment of strategies as needed. The following table summarises a set of options and good practices that could be implemented to overcome bottlenecks to investment. These are discussed in greater detail in the following sections.

SUMMARY OF OPTIONS AND GOOD PRACTICES FOR SCALING UP INVESTMENT IN ADAPTATION

	ACTION AREA	OPTIONS AND GOOD PRACTICES
Capacity and data 	Strengthening access to high-quality climate data and tools	<ul style="list-style-type: none"> ● Increase funding to support the development of weather observation systems ● Invest in “last mile” solutions to expand access to climate data, such as online platforms ● Encourage open data on climate risks
	Improving transparency about climate resilience	<ul style="list-style-type: none"> ● Strengthen interoperability of climate-related taxonomies ● Integrate climate adaptation into transition plans and other forms of disclosure ● Encourage ratings and labels to identify climate resilient investments
Domestic policies  	Strengthening the domestic enabling environment	<ul style="list-style-type: none"> ● Undertake adaptation investment planning to identify priority needs in line with national adaptation objectives ● Assess alignment of domestic policies with climate resilience objectives
	Scaling up domestic resource mobilisation	<ul style="list-style-type: none"> ● Integrate adaptation into government processes (e.g. budgeting, procurement and project appraisal) ● Ensure clear allocation of climate-related risks within public-private partnerships (PPPs) ● Explore targeted support mechanisms for private investment (e.g. tax incentives)
	Enhancing the contribution of insurance markets to encouraging adaptation	<ul style="list-style-type: none"> ● Explore initiatives to expand access to insurance and reinsurance (e.g. InsuResilience Partnership) ● Ensure that insurance encourages investment in risk reduction and efforts to “build back better” following a loss
International support to mobilise investment  	Improving the quantity and accessibility of international concessional finance for adaptation	<ul style="list-style-type: none"> ● Set internal targets for international providers of adaptation finance, where appropriate ● Encourage use of programmatic approaches ● Expand use of policy-based lending to improve enabling environment for investment
	Standardising and streamlining processes for accessing climate finance	<ul style="list-style-type: none"> ● Adopt common application and reporting frameworks ● Support direct access to facilitate finance to local communities
	Mobilising private investment through blended finance and project preparation facilities	<ul style="list-style-type: none"> ● Use development finance more catalytically to mobilise private finance towards adaptation, including through the use of blended finance ● Integrate climate adaptation into project preparation facilities ● Enhance co-ordination mechanisms (such as country platforms) linked to national priorities
	Enabling innovative finance mechanisms	<ul style="list-style-type: none"> ● Explore potential of innovative instruments such as debt for climate conversions and resilience bonds



PILLAR 1: ENHANCING ACCESS TO DATA AND CAPACITY

Limited access to climate data and technical capacity remain a major barrier to investment in adaptation, particularly in least developed countries (LDCs) and small island developing states (SIDS). Despite improvements, significant gaps persist in hazard maps, local climate scenarios and high-resolution weather data (World Bank, 2024^[11]). Many countries lack the capacity to conduct climate risk assessments, identify adaptation priorities, and translate these into bankable proposals. In the private sector, limited expertise to demonstrate the business case for adaptation hampers mainstreaming into investment decisions. This challenge disproportionately affects micro and small enterprises, which form the backbone of most emerging markets and developing economies (EMDEs) (OECD, 2023^[7]).

Efforts to strengthen the “information ecosystem” are advancing, with contributions from both public and private actors adapted to country contexts, but further action is needed. Key areas for action include improving access to climate data and supporting open data approaches, as well as strengthening the translation of that data into decision-relevant information. In parallel to efforts to increase the supply of data and capacity, streamlining processes and supporting standardisation and interoperability can help to reduce the demands on this capacity.

ACTION AREA 1.1: Strengthening access to high-quality climate data and tools

There has been considerable progress in the quality and accessibility of climate data services, particularly in Africa and Asia. For example, the number of African countries providing only basic access to weather data has fallen from eight to three (WMO, 2024^[12]). Global initiatives have been instrumental to enhance consistency, quality control, and accessibility of relevant climate data. The EU’s Copernicus programme and the US NOAA’s National Centers for Environmental Information provide extensive global datasets relevant to understanding historical climate trends and projecting future impacts. The IPCC provides access to core climate scenarios through its Data Distribution Centre.

Building on this progress, international collaboration can further improve the quality, comprehensiveness, and usability of climate data by:

- **Expanding and maintaining weather observation networks** in developing countries.
- **Capturing and digitising historical weather data** to strengthen long-term records.
- **Developing user-friendly climate platforms** that provide downscaled data tailored to end-user needs.



Examples of emerging initiatives include the World Bank's Climate Change Knowledge Portal, which consolidates global, regional, and national datasets and delivers tailored knowledge products, and the Global Risk Modelling Alliance, which brings together the V20 and the Insurance Development Forum to provide tools and expertise on disaster risk.

ACTION AREA 1.2: Improving transparency about climate resilience

Improving transparency on physical climate risk exposure and the benefits of investing in adaptation is critical for directing capital efficiently, reducing systemic risk, and identifying investment opportunities. Standardised tools, such as the Physical Climate Risk Assessment Methodology (PCRAM), support consistent assessment and communication of these risks. Current initiatives to improve transparency on exposure to physical climate risks include:

- **Disclosure:** Physical climate risks are increasingly covered by climate-related disclosure standards, including IFRS S2 and the European Sustainability Reporting Standards. Further work on standardised metrics for opportunities arising from adaptation would strengthen transparency.

- **Stress-testing:** Central banks are stepping up efforts to analyse the potential impacts of weather-related risks on financial stability (NGFS, 2024^[13]). Current NGFS scenarios do not fully capture tipping points, compound events, or non-linear climate impacts (NGFS, 2024^[14]). Methodologies to better incorporate climate risks into stress testing would enhance transparency in this area.

- **Commercial data providers:** Private sector datasets help assess exposure using proprietary methods.

Exposure to physical risk is a key driver of investment in climate adaptation, but this is only one part of the issue. For example, the consequences of locating an industrial facility in a flood zone depend upon factors including the design of the facility, integration with supply chains and strength of contingency planning. Further efforts to improve the quality of risk analysis are needed to ensure that metrics provide a relevant measure of risk. Beyond risk management, the ability to assess the alignment of finance with climate resilience policy goals remains very limited (OECD, 2024^[15]). More tangible reference points are needed at national and regional levels, reflective of the context-specific nature of climate exposure and vulnerability, to enable such assessments (Noels et al., 2024^[16]).

Efforts are also underway to expand the focus from risk exposure to the benefits of adaptation. Effective mechanisms to identify investments that are well-adapted to weather-related risks, or contribute to the adaptation of others, will be a critical step for encouraging investments in resilience through instruments such as green bonds, or policy incentives (discussed below). Key mechanisms include:

- **Transition plans:** originally designed to communicate proposed approaches for climate mitigation, these are now being considered to help communicate adaptation strategies. This is explored in NGFS (2025_[17])².
- **Taxonomies:** Between 2020 and 2024, 24 adaptation-related taxonomies were published, including voluntary and government-led initiatives (Spacey Martin, Ranger and England, 2024_[18]). Ensuring interoperability between taxonomies, whether voluntary or mandatory, can support market development and reduce transaction costs.

- **Resilience ratings and labels:** Initiatives such as the Blue Dot Network and FAST-Infra help identify investments that have integrated climate resilience. The World Bank's Resilience Rating System standardises how adaptation and resilience are assessed in project design, scoring from A+ to C on two dimensions: the project's own resilience to climate change and its contribution to the resilience of others.

Future priorities could include mapping gaps in the information ecosystem, improving consistency across transparency mechanisms (e.g. taxonomies and labels), and identifying good practices in areas such as common definitions and credible communication of adaptation benefits. There is also scope for the use of key performance indicators (KPIs), AI for processing heterogeneous data, and approaches to investment labelling and rating, building on existing initiatives.

2. This is explored further in the NGFS input paper to the G20 SFWG.



PILLAR 2: STRENGTHENING THE DOMESTIC POLICY ENVIRONMENT

Adaptation is a systemic challenge both in terms of the propagation of climate risks and the development of adaptation responses. The OECD’s **Climate Adaptation Investment Framework** (CAIF) highlights the need for clear and consistent policies to address climate risks. Yet gaps remain in institutional frameworks, including weak co-ordination between government departments and across national and sub-national levels. Few countries have integrated climate considerations into core budgetary processes, project appraisal tools, or public procurement policies. Given that the relevant policy levers lie across all parts of government, addressing institutional challenges is essential to bridge the gap between the high social returns of adaptation and the sometimes low direct market returns.

ACTION AREA 2.1: Strengthening domestic policies

Articulating strategic priorities and strengthening institutional co-ordination mechanisms are essential to direct finance and investment toward adaptation needs. Addressing any relevant regulatory distortions and providing regulatory incentives can strengthen incentives to invest in adaptation, while discouraging investments that undermine climate resilience.

- **Institutional co-ordination:** Clearly defining roles and responsibilities across different levels and sectors of government, as well as between public and private actors, ensures policy coherence. Engaging finance and planning ministries is essential for aligning adaptation priorities with national investment strategies and budgetary processes.
- **Strategic planning and metrics:** Embedding objectives, metrics, and targets in national strategies

and action plans helps guide investment. Economic assessments of extreme weather events and mapping financial needs inform financing strategies and adaptation investment plans. Monitoring and evaluation, particularly of investment mobilisation, supports accountability and future decision-making.

- **Regulatory framework:** Stable, transparent, and predictable regulations direct capital toward resilient investments. Regulations should support adaptation goals rather than hinder them. This could require reforming subsidies that create perverse incentives (e.g. in agriculture or energy) and updating existing technical codes and regulatory standards to reflect current and projected climate risks (Table 3). Performance-based standards can foster innovation by focusing on desired outcomes instead of prescribing fixed methods, allowing for more flexible and creative solutions.
- **Regulatory incentives:** These catalytic measures can encourage nature-based solutions, resilient building practices, and efficient water allocation. Infrastructure sectors regulated for economic efficiency (e.g. water, energy, transport) should incorporate adaptation into their pricing and investment frameworks to avoid long-term maladaptation.
- **Support for private investment:** Targeted measures can stimulate innovation and investments with broader social benefits. Options include fiscal incentives, project preparation facilities, and innovation accelerators to help translate concepts into bankable projects.

TABLE 4. EXAMPLES OF POTENTIAL REGULATORY REFORMS IN KEY SECTORS

Sector	Examples
Agriculture	Reducing and redirecting commodity-specific agricultural subsidies
Buildings	Retrofitting the existing building stock for greater energy efficiency
Industry	Updating health and safety regulations to account for higher summer temperatures
Infrastructure	Mandating the integration of green roofs into urban development
Natural environments	Mandating the restoration of mangroves and coral reefs
Water	Ensuring that the price of water faced by end users reflects its value

Source: Based on OECD (2024^[9]), Climate Adaptation Investment Framework, <https://doi.org/10.1787/8686fc27-en>.

ACTION AREA 2.2: Enhancing the contribution of insurance and reinsurance markets to investment in adaptation

Insurance and risk transfer can support investment in adaptation by pricing risk, rewarding risk reduction and providing resources for resilient rebuilding. Expanding affordable coverage and aligning supervision with risk-based pricing strengthens incentives and unlocks investment. Yet availability and uptake remain low: in 2023, only 3% of Africa’s climate-related losses were covered by insurance, compared to a global average of around 50% (AfDB, 2023^[19]; 2024^[20]).

Governments can support broader insurance coverage for climate-related risks by:

- **Leveraging digital technologies** to reach underserved populations.
- **Supporting suitable and affordable insurance products**, such as microinsurance and parametric insurance.
- **Clarifying coverage for climate-related risks** and considering mandatory inclusion of climate risks in property insurance.
- **Supporting sustainable access to affordable reinsurance capacity**, including through capital markets.
- **Considering public-private insurance programmes** to ensure the availability of affordable coverage for climate-related risks.

- **Promoting insurance literacy** and building awareness of the need for insurance coverage against climate-related risks.

Initiatives underway to close the insurance gap in Africa are summarised in Box 3. Translating greater insurance coverage into adaptation outcomes also requires:

- Access to high-quality data and modelling tools to accurately quantify risk and set premiums.
- Use of risk-based pricing and incentives for households and businesses to implement risk-reduction measures.
- Supervisory oversight to ensure premiums are adequate, fair, and linked to effective risk management.
- Collaboration between insurers and governments to co-finance “build back better” efforts, directing claims and recovery assistance towards resilient reconstruction.

ACTION AREA 2.3: Supporting Domestic Resource Mobilisation

The public sector remains a major source of investment in climate adaptation, with public spending likely to shift further as the frequency and severity of extreme events rise. To mobilise resources effectively, governments need to embed climate resilience into all aspects of public financial management, including budgeting, appraisal, procurement, fiscal frameworks and financial risk management:

BOX 3. STRENGTHENING ACCESS TO AFFORDABLE INSURANCE IN AFRICA

Closing Africa’s insurance protection gap demands a multi-faceted approach: strengthening regulatory frameworks, expanding public-private partnerships, investing in climate data infrastructure and scaling inclusive insurance models.

- **Africa Risk Capacity (ARC):** A specialised agency of the African Union providing sovereign parametric insurance against drought and other climate risks. In 2019, ARC paid out USD 23 million to Senegal, helping support 300 000 vulnerable people.
- **Africa Co-Guarantee Platform:** A collaborative initiative that brings together leading guarantors and insurers to scale up risk mitigation and crowd in private finance. The platform aims to close Africa’s USD 200 billion annual trade and investment gap by providing guarantees that leverage multilateral institutions’ strong credit ratings.
- **Africa Climate Risk Insurance Facility for Adaptation (ACRIFA):** Launched by the African Development Bank, ACRIFA aims to mobilise USD 1 billion in risk capital to expand insurance offerings to smallholder farmers and micro, small, and medium enterprises (MSMEs).
- **Room2Run Securitisation Initiative:** A USD 1 billion synthetic securitisation led by the African Development Bank that frees up capital for climate investments, including in the insurance sector.

Source: OECD and AfDB (2025), *Scaling Finance and Investment for Climate Adaptation*.

- **Green budgeting and expenditure tracking:** Integrating climate into budget circulars, medium-term expenditure frameworks, and reporting can help mainstream adaptation. Measurement frameworks to define and track public investment in adaptation against expenditure targets can enhance transparency and accountability, strengthening incentives to mainstream adaptation.
- **Project and programme appraisal tools:** Appraisal tools should capture uncertainty, non-market benefits and long-term impacts. Techniques such as non-market valuation or multi-criteria analysis can better reflect the benefits of adaptation investments in saving lives, protecting health and reducing economic losses.
- **Public procurement:** Lifecycle costing approaches can ensure that procurement favours goods and services with lower long-term maintenance costs and greater resilience to climate impacts, albeit with potentially higher upfront costs. For instance, investing in infrastructure materials that are more resistant to extreme weather can reduce repair costs and service disruptions over time.
- **Public-private partnerships (PPPs):** PPPs should explicitly integrate climate risks, with clear delineation of responsibilities for risk management and contractual provisions for adaptation measures. Such clarity helps prevent disputes and ensures that infrastructure projects remain functional and safe under changing climate conditions.
- **Fiscal policy:** Taxes, charges and incentives can encourage investment in adaptation. For example, the city of Philadelphia has introduced a stormwater fee based on impermeable surface area, which provides an incentive to replace paved areas with green spaces. Tax credits and rebates can further encourage retrofitting and investment in R&D.
- **Financial risk management:** Reserve funds, insurance coverage and risk transfer instruments (e.g. catastrophe bonds) can help governments absorb fiscal shocks from climate events while maintaining continuity of essential public services.



PILLAR 3: INTERNATIONAL SUPPORT TO MOBILISE INVESTMENT

International support for adaptation is critical in developing countries, where limited fiscal space and capacity constraints pose significant barriers. Yet accessing international support remains complex. The funding landscape is highly fragmented, with 81 climate funds in operation. Local and national institutions often face hurdles such as stringent accreditation requirements, language barriers, and capacity constraints. Lengthy review and approval processes further delay access. These challenges are compounded by the absence of common metrics to demonstrate adaptation benefits.

The use of international finance to mobilise private finance remains at an early stage for climate adaptation. Between 2016 and 2021, developed countries' public interventions mobilised only USD 7.1 billion in private finance for adaptation (USD 1.2 billion annually on average), compared to USD 69.5 billion for mitigation (OECD, 2023^[17]). International assistance is most effective when anchored in country-led adaptation plans. To be credible, such plans need predictable and long-term external support, giving recipients confidence that their priorities will be backed by sustained finance.

ACTION AREA 3.1: Improving the quantity and accessibility of international concessional finance

Providers of development finance play a central role in financing and strengthening adaptation in developing countries, particularly least developed countries (LDCs) and small island developing states (SIDS), which are among the most affected by climate change.

Despite progress, international public climate finance (under the USD 100 billion goal) remains skewed towards mitigation. In 2022, developed countries provided and mobilised USD 115.9 billion for climate action in developing countries. Yet only USD 32.4 billion targeted adaptation, compared to USD 69.9 billion for mitigation and USD 13.6 billion for both objectives (OECD, 2024^[3]).

Options to improve the scale and effectiveness of international concessional finance include (OECD, 2023^[21]):

- **Set quantitative targets for adaptation finance:** Internal targets can encourage providers to mainstream adaptation into wider development programmes that do not have a primary adaptation



objective. These targets could include specific geographic allocations of adaptation finance, to ensure that the poorest and most vulnerable countries are adequately served.

- **Shift from project-based to programmatic adaptation approaches:** Programmatic approaches provide longer-term and more stable financing, support comprehensive adaptation planning, and create synergies across priorities and projects. Expanding the use of country platforms for adaptation can help bundle support from different providers, anchor individual projects in long-term strategies, and make individual investments more attractive to commercial finance.
- **Increase policy-based climate finance for adaptation:** Policy-based finance is unearmarked budget support that is linked to an agreed set of policy reforms. This form of budget support complements project-level interventions and offers recipients more flexibility and ownership over the use of funds and reduced transaction costs. It requires strong public financial management systems and

may not be suitable for highly indebted countries, given its loan-based nature.

- **Streamline and align application procedures across funds.** Greater interoperability, strengthened collaboration, and avoiding new fund proliferation can reduce transaction costs (G20 Brasil, 2024^[22]). Examples include the GCF and GEF Long-Term Vision on Complementarity and Coherence, which supports collaborative programming with shared impact measurement. Further options could include mutual recognition of accredited entities between multilateral climate funds.
- **Facilitate direct access to resources.** Simplifying accreditation and application processes can expand access for local entities, strengthen domestic capacity, and enable greater uptake of locally led adaptation projects.

ACTION AREA 3.2: Supporting the mobilisation of private investment through blended finance and project preparation facilities

The private sector has a key role to play in adaptation, both as a source of finance, and in ensuring economic activities and assets are resilient to climate impacts. Blended finance is one of the most effective approaches to unlock private capital, and can be tailored to different stages of the project cycle. Grants can de-risk innovative projects with uncertain cash flows by funding feasibility studies and early-stage preparation. Guarantees enhance creditworthiness, and reduce financing risks for proven but not widely deployed technologies (OECD, 2023^[23]). Blended finance and project preparation facilities can also help developing countries identify, design, and scale high-quality adaptation projects, while addressing data, capacity, and financing constraints that hinder investment.

Options for the strategic deployment of public resources include (OECD, forthcoming):

- **Leveraging providers' expertise** and unique competitive strengths to deliver targeted capacity development.
- **Supporting adaptation planning** (e.g NAPs) to generate a pipeline of bankable projects.



BOX 4. SUPPORTING ADAPTATION INNOVATION: THE G7 ADAPTATION ACCELERATOR HUB

The recently launched *G7 Adaptation Accelerator Hub (AAH)* aims to address constraints to private investment in innovative adaptation solutions by supporting co-ordination, pipeline development and better alignment between funding and needs. In particular, the initiative seeks to address persistent data and capacity gaps that hinder the development of bankable adaptation projects. The Hub supports developing countries, particularly in Africa, by improving access to decision-relevant climate information, facilitating investment planning processes, and fostering institutional capacity-building. Through the provision of technical assistance, support to data infrastructure, and socially informed feasibility assessments, the AAH helps translate national priorities into actionable pipelines, particularly in countries facing barriers to accessing international climate finance.

Source: OECD and AfDB (2025), *Scaling Finance and Investment for Climate Adaptation*.

- **Providing flexibility in project definitions** so countries can prioritise investments aligned with their adaptation and resilience needs.
- **Mainstreaming resilience into development projects**, by working upstream with countries to identify initiatives with strong adaptation potential.
- **Adaptation Benefits Mechanism (ABM)**: Developed and piloted by the African Development Bank, the ABM enables payments to private sector project developers in return for “Certified Adaptation Benefits” (CABs). These new cash flows help make adaptation projects bankable by acting as an investment grant, and support access to debt capital markets by providing collateral (i.e. a signed purchase agreement for CABs).

ACTION AREA 3.3: Enabling innovative finance mechanisms

International support can help countries scale up innovative financial approaches that expand fiscal space, reduce risk, and mobilise investment for adaptation. Promising mechanisms include:

- **Debt-for-climate swaps**: Agreements that redirect part of a country’s debt service towards climate investments can lower borrowing costs and ease debt distress. In doing so, they free up fiscal space beyond the direct savings generated by the debt swap, improve macroeconomic conditions, and create a more attractive environment for private investment (GCF, 2024^[25]).
- **Resilience bonds**: As a sub-set of green bonds, these raise capital specifically for climate resilience investments (Global Centre on Adaptation, 2020^[26]). The Climate Bonds Resilience Taxonomy (CBRT) provides a consistent and systematic methodology to define and identify resilience-aligned projects (Climate Bonds Initiative, 2024^[27]).
- **Climate-resilient debt clauses**: These allow sovereigns to postpone debt repayments following climate-related disasters, reducing fiscal shocks (CPI, 2025^[28]). Since repayments can be designed in a way that is neutral in terms of net present value, such arrangements can provide breathing space for affected countries at minimal or no cost to creditors.



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Financing Climate Adaptation

Mobilising Investment at Scale

Strengthening resilience to the impacts of climate change will require a concerted effort to scale up and better align financial flows from all sources in support of climate-resilient development.

This Policy Highlights document presents the key messages from the OECD publication *Scaling Finance and Investment for Climate Adaptation*, which was prepared for the G20 South African Presidency in collaboration with the African Development Bank. It identifies options and good practices for addressing barriers to investment in adaptation, by strengthening access to data and capacity, improving domestic enabling environments and enhancing the contribution of international support for mobilising investment.

Read the full report:
<http://bit.ly/3Kz3rxw>



For more information:



Michael Mullan (Michael.Mullan@oecd.org)
Iris Mantovani (IrisGaia.Mantovani@oecd.org)



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