1 Framing of adaptation finance

As the impacts of climate change grow more severe and frequent, greater adaptation action is increasingly urgent. International providers have a pivotal role in providing and mobilising finance flows to support adaptation in developing countries, which often lack resources and capacity to undertake adaptation measures. This chapter provides an overview of key international policy context and developments, methodological challenges in accounting for adaptation finance, various sources, mechanisms, and instruments of adaptation finance, as well as both adaptation-related financing needs and tracked finance flows. Such an overview intends to motivate the need to better identify challenges and opportunities for scaling up adaptation finance and improving its effectiveness.

The physical effects of climate change are already visible, resulting in significant human and economic losses and costs across the world. The Sixth Assessment Report of the Intergovernmental Panel on Climate Change makes clear that the impacts of climate change will intensify over the coming decades and that the speed and scale of progress in reducing emissions will determine their severity (Core Writing Team, Lee and Romero, 2023[1]). In the face of this threat, it is essential to accelerate efforts to adapt to acclimate change.

Scaling up adaptation action requires scaling up finance, especially for developing countries that are acutely vulnerable to climate change but often lack both financial resources and capacity to undertake adaptation measures. International providers have a pivotal role in providing and mobilising finance flows to support adaptation in developing countries. Their contribution was recognised in the 2021 Glasgow Climate Pact, wherein the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) "[u]rges developed country Parties to at least double their collective provision of climate finance for adaptation to developing country Parties from 2019 levels by 2025, in the context of achieving a balance between mitigation and adaptation in the provision of scaled-up financial resources". (UNFCCC, 2021[2])

OECD DAC members have also acknowledged the need to align development co-operation and finance with international climate goals. The 2021 OECD DAC Climate Declaration includes commitments from DAC members to strengthen their support for climate change adaptation and resilience in developing countries consistent with the aims of Article 2.1c of the Paris Agreement[1] (OECD, 2021[3]).

In this context, this report identifies challenges to and opportunities for scaling up finance for adaptation in developing countries, with a specific focus on the role of international public finance. The analysis is anchored in the context of the USD 100 billion climate finance goal. It also considers the broader and longer-term objective of supporting developing countries' ability to adapt to the adverse impacts of climate change.[2] The assessment of the current state- of play and the action areas and options are informed by quantitative and qualitative analyses of existing adaptation projects, case studies, and interviews with a broad range of stakeholders. The parallel and complementary OECD report "Scaling up the mobilisation of private finance for climate action in developing countries: Challenges and opportunities for international providers" addresses in greater detail the issue of mobilisation of private finance, with a focus on climate change mitigation (OECD, 2023[4]).

This overview chapter presents recent policy developments, available estimates of investment needs and finance flows for adaptation, and a review of the institutional architecture. The remainder of the report is structured as follows:

- Chapter 2 examines historical trends in finance provided and mobilised for adaptation in developing countries.
- Chapter 3 identifies existing challenges and barriers to scaling up of adaptation finance to date.
- Chapter 4 outlines concrete opportunities for international providers across five key action areas to scale up and help unlock finance for adaptation from the public and private sectors.
- Chapter 5 highlights ways forward for international providers to overcome barriers to scaling up adaptation finance across the five action areas, with a focus on the timescales of the various options and to what extent they can impact adaptation finance levels.
- Annex A presents detailed case studies of existing initiatives that work with and through the private sector to scale the mobilisation of private finance into adaptation activities.
- Annex B lists developing countries by various categories and groupings.

1.1. Understanding adaptation to climate change

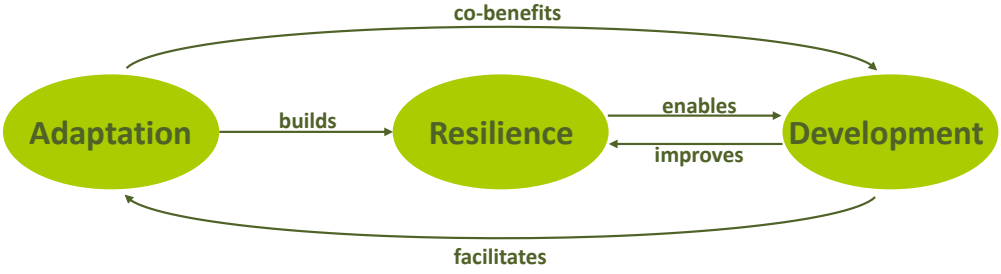
1.1.1. Links between adaptation, resilience and development

Adaptation to climate change is the process of process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities[3]. The outputs of this process are context specific and may involve, for example, farmers diversifying their crop varieties to better handle the changes in temperature and rainfall patterns induced by climate change (Mehryar, 2022[5]). Adaptation may be one motivation among several for undertaking an activity. For instance, the construction of an all-weather road may facilitate local economic development. Adapting the road to expected impacts of climate change to reduce climate-related disruption is essential to the original purpose of the road.

Resilience refers to the capacity of human systems or societies to prepare for, respond to and recover from the impacts of external shocks while minimising damages. Resilient systems, having the capacity to withstand significant disturbances, are usually more adept at adapting to climate change. At the same time, a system that successfully adapts to climate change impacts may become more resilient against future changes. This synergy between adaptation and resilience is pivotal to sustainable development.

Economic development also can be conducive to resilience to climate change, for instance by improving income levels, strengthening government institutions and civil society, and improving health care (Figure 1.1). At a basic level, adaptive capacity is defined in terms of the ability to mobilise financial resources and capacities towards adaptation action, ability that is directly determined by the level of economic development. Higher levels of development are also directly associated with better resilience as better developed systems and wealthier societies have, in principle, more resources with which to cope with shocks. However, some development paths can sometimes inadvertently increase vulnerability. An example is urban growth in areas highly susceptible to climate change effects, such as coastal zones exposed to sea level rise. Such a situation is known as maladaptation. Hence, it is vital for countries to thoroughly assess climate-related risks and vulnerabilities and embed potential adaptation measures within their developmental policies, plans and projects (OECD, 2009[6]).

Figure 1.1. How adaptation, resilience and development are linked



Source: Authors.

Adaptation and resilience are related to the concepts of losses and damages, on one hand, and disaster risk reduction (DRR), on the other, and there are also close, substantive links between these two concepts (Box 1.1). Progress in adapting to climate change should help limit losses and damages from climate change. This report focusses on adaptation finance while recognising the importance of achieving synergies with these related policy agendas.

Box 1.1. Losses and damages from climate change and DRR

Losses and damages

Climate-related losses and damages, the harms caused by climate change, can be averted, minimised and addressed through adaptation and mitigation measures. However, some losses and damages are now inevitable (OECD, 2021[7]). COP27 brought an agreement to establish "new funding arrangements" for assisting developing countries in responding to "loss and damage", including a fund (UNFCCC, 2022[8]).

Finance relevant to reducing and managing the risk of losses and damages is currently channelled through adaptation and DRR activities. An exploratory study found that DAC members collectively committed between USD 876 million and USD 6.7 billion on average each year over 2018-19 in activities relevant to addressing climate-related losses and damages (OECD, 2021[7]). OECD work to track progress towards the USD 100 billion goal, however, does not identify a distinct category for finance that relates to losses and damages (OECD, 2022[9]). The OECD work has centred on building financial resilience to climate impacts, with a focus on supporting governments' financial management of climate-related risks and economy-wide losses and damages (OECD, 2022[10]).

Disaster risk reduction

As the UN defines it, "disaster risk reduction is aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development" (United Nations Office for Disaster Risk Reduction, n.d.[11]). While DRR covers reducing risks of natural hazards such as earthquakes, tsunamis and volcanic eruptions, adaptation-related interventions include DRR activities that are also relevant to climate-related risks.

DRR and climate change adaptation are strongly related. For example, stronger post-disaster responses are needed in absence of adaptation (OECD, 2020[12]). The aim of the Sendai Framework for Disaster Risk Reduction, adopted in 2015, is to drive international efforts on DRR (United Nations, 2015[13]). The Sendai Framework and the Paris Agreement together make a strong case for increased coherence and co-ordination in how climate change adaptation and DRR are managed.

Source: OECD (2021[7]), *Managing Climate Risks, Facing up to Losses and Damages*, https://doi.org/10.1787/55ea1cc9-en; United Nations Climate Change (2022[8]), "COP27 Reaches Breakthrough Agreement on New 'Loss and Damage' Fund for Vulnerable Countries", https://unfccc.int/news/cop27-reaches-breakthrough-agreement-on-new-loss-and-damage-fund-for-vulnerable-countries; OECD (2022[9]), *Climate Finance Provided and Mobilised by Developed Countries in 2016 – 2020: Insights from Disaggregated Analysis*, https://doi.org/10.1787/5f1f4182-en; United Nations Office for Disaster Risk Reduction (n.d.[11]), *Sendai Framework Terminology on Disaster Risk Reduction*, https://www.undrr.org/terminology/disaster-risk-reduction; OECD (2020[12]), *Common Ground Between the Paris Agreement and the Sendai Framework*, https://doi.org/10.1787/3edc8d09-en; United Nations (2015[13]), *Sendai Framework for Disaster Risk Reduction 2015 – 2030*, https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030.

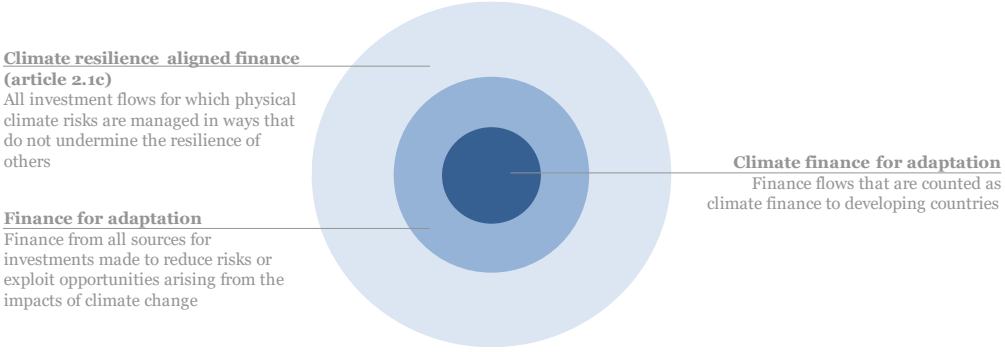
1.1.2. Range of adaptation finance sources

Finance for adaptation activities in developing countries can come from a variety of domestic, international, public and private sources (section 1.2). As illustrated in Figure 1.2, finance for adaptation and resilience encompasses a range of purposes, definitions and reporting categories. The broadest concept of climate resilience-aligned finance (outer circle in the figure) refers to all investment flows from all sources that are consistent with climate-resilient development (article 2.1c of the Paris Agreement). This concept includes finance for adaptation (intermediate circle), which is finance from all sources for investments that aim to contribute to adaptation. Climate finance for adaptation (inner circle) is the subset of finance for adaptation

that is provided and mobilised by international public sources. Depending on the source of the finance, this subset can be viewed as either finance for adaptation or climate finance for adaptation. The analysis in this report also covers climate-related development finance, which is bilateral official development assistance (ODA) for activities that have adaptation as a primary or significant objective. Development co-operation providers tend to report a fraction of these flows as climate finance for adaptation, and accounting for this finance remains a challenge (Box 1.2).

In broad terms, the concentric circles in Figure 1.2 represent orders of magnitude in terms of annual finance flows: Flows of climate finance provided and mobilised by developed countries for adaptation are in the tens of billions of US dollars per year, the estimated finance for adaptation needed in developing countries is in the hundreds of billions and the goal of alignment applies to trillions of dollars of all finance flows. This report focusses on the role of international providers in scaling up finance for adaptation in developing countries through increases in climate finance for adaptation and how the use of such climate finance can mobilise other sources of finance for adaptation.

Figure 1.2. Finance flows for adaptation in developing countries



Source: Based on Mullan and Ranger (2022[14])., "Climate-resilient finance and investment", https://doi.org/10.1787/223ad3b9-en.

1.1.3. Defining, identifying and tracking finance for adaptation

The same finance flows can yield multiple benefits. Adaptation objectives often align with broader growth and development objectives. For example, adapting agricultural practices to safeguard yields not only protects farmers' income and livelihoods but also bolsters food security at local, national and international levels. The inherent links between adaptation and broader developmental and policy objectives are advantageous because they amplify the benefits of a specific intervention. Even when adaptation is the main reason for an activity, the associated co-benefits can sometimes exceed the primary climate risk reduction benefits (Heubaum et al., 2022[15]). Such co-benefits reinforce the rationale for the required investments and for securing the necessary finance.

From an accounting viewpoint, it can be difficult to distinguish finance for adaptation from other climate finance (Hammill and McGray, 2018[16]). There are two primary challenges. First, due to the context-specific nature of adaptation, just examining the activity is not enough to determine if an investment aids adaptation. An action that is apt in one setting, such as enhancing crop irrigation, might be unsuitable in another. This context dependency makes it difficult to categorise an expense as adaptation finance since the same action might either aid or hinder adaptation depending on the situation. A second key challenge is that adaptation measures often seamlessly blend into activities designed for various other reasons. For example, improving access to education can also yield adaptation benefits. As such, it is not always possible to readily separate out the elements or share of an activity contributing to adaptation.

Considering these challenges, several frameworks have been developed to identify finance flows for adaptation, among them the OECD Rio markers, the adaptation definitions in the European Union (EU) Taxonomy and the joint multilateral development bank (MDB) methodology (Box 1.2). While these methodologies differ, a common feature is that they identify finance for adaptation based on processes rather than on the intrinsic characteristics of the activity or the sector that the activity belongs to. For example, classification under the OECD Rio markers is determined by the intention behind the activity and the ability to demonstrate that the proposed activity will contribute to climate adaptation. Similarly, the adaptation component of the EU Taxonomy requires that a process of climate risk assessment and management be undertaken to justify that an activity contributes to adaptation.

Box 1.2. Accounting for climate finance for adaptation: Insights from current approaches

Identifying and accounting for adaptation finance are inherently difficult due to several technical and methodological challenges such as how to determine which activities count as adaptation, attribute the proportion of a project's budget that serves adaptation and track private finance. However, providing quantified information on finance for adaptation directed towards developing countries is crucial to ensure transparency and identify gaps and unmet needs.

In the context of the OECD DAC, the Rio markers were developed to identify development finance that contributes to environmental objectives and include a marker for climate change adaptation. An activity can be classified as adaptation related if "it intends to reduce the vulnerability of human or natural systems to the current and expected impacts of climate change" (OECD, 2017[17]). An activity is further eligible for this marker if it has:

- climate change adaptation as a principal objective, and when the adaptation objective is explicitly stated as fundamental in the design or motivation of the activity.
- climate change adaptation as a significant objective but when the activity has other prime objectives, the activity has been formulated or adjusted to help meet the relevant climate concerns.

Projects can also be marked as contributing to several environmental objectives. For example, mangrove restoration could be marked as contributing to biodiversity, climate change adaptation and climate change mitigation. The data collected through the OECD Creditor Reporting System (CRS) database are also used to identify adaptation-related development finance. The use of a Rio marker, regardless of whether adaptation is a principal or significant objective, does not affect the total amount of finance being reported to the DAC CRS database. Therefore, most countries, when reporting adaptation-specific data to the UNFCCC through their Biennial Reports, use the Rio markers to identify their climate finance for adaptation and apply coefficients to estimate the portion of a contribution targeting adaptation or mitigation specifically (OECD, 2023[18]).

The methodology developed by MDBs to track climate finance for adaptation also aims to capture the incremental cost of adaptation activities and, in accounting for responses to climate vulnerabilities, is project and location specific (EIB, 2022[19]). The components range from the full investment amount to just a small fraction of a development project that relates specifically to climate change mitigation or adaptation objectives.

Harmonising methodologies to better understand finance for adaptation

The methodologies used to identify adaptation-related projects and to account for adaptation finance (e.g., using coefficients) can have a significant impact on the quantification of the levels of adaptation finance being provided and mobilised to developing countries. To ensure that reported adaptation finance accurately reflects the extent of international investment in adaptation for developing countries, it is crucial to continue working on improved and harmonised methodologies for identifying and accounting for adaptation finance. These will eventually contribute to ensuring that resources are effectively allocated and invested in adaptation projects. The OECD is already working with its members to improve the adaptation Rio marker methodology and is updating its guidance documents that provide examples and rationale for scoring the activities in various sectors of intervention.

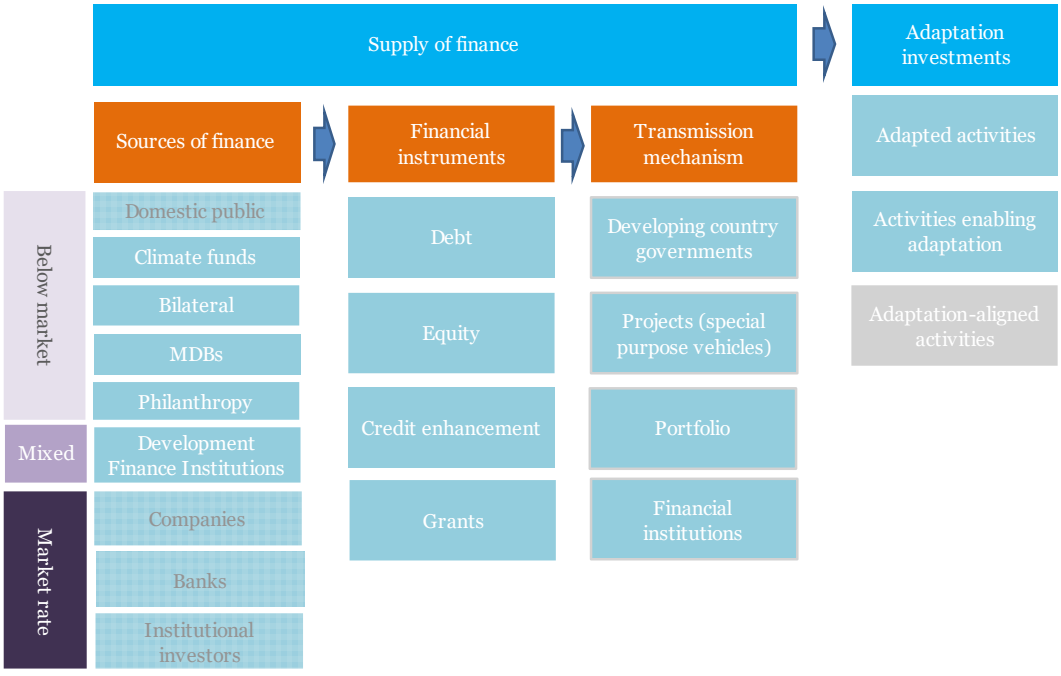
Source: OECD (2017[17]), *OECD DAC Rio Markers for Climate – Handbook*, https://www.oecd.org/dac/environment-development/Revised%20climate%20marker%20handbook_FINAL.pdf; OECD (2023[18]), *Results of the survey on the coefficients applied to 2019-20 Rio Market data when reporting to the UN Environmental Conventions*, DCD/DAC/STAT(2022)24/REV1; EIB (2022[19]), *Joint methodology for tracking climate change adaptation finance*, https://www.eib.org/attachments/lucalli/20220242_mdbs_joint_methodology_climate_finance_en.pdf.

1.2. Understanding the diverse array of sources of finance for adaptation

Finance will flow when the requirements of finance providers match the characteristics of the investments and when finance is channelled through suitable financial instruments and transmission mechanisms. This dynamic applies as well to finance for climate adaptation. Figure 1.3 provides a simplified model of the main actors, instruments and transmission mechanisms that link up the sources of adaptation finance with the demand for such finance in developing countries. This architecture determines both the quantity of finance flows and the extent to which these flows are consistent with the priorities of developing countries.

This section outlines the mandates of key finance sources and the characteristics of investments in adaptation. It also indicates which of these are covered in this report. Chapter 2 analyses the extent to which these sources and investment characteristics now match.

Figure 1.3. General architecture of finance flows for adaptation in developing countries



Note: This report covers international public finance sources (solid colour) and other finance sources that have been mobilised by international public finance (cross-hatched). This report focusses on investments in adapted activities and activities enabling adaptation, while recognising the importance of aligning all activities.
Source: Adapted from Tall et al. (2021[20]), *Enabling Private Investment in Climate Adaptation and Resilience: Current Status, Barriers to Investment and Blueprint for Action*, http://hdl.handle.net/10986/35203.

Policy-based finance sources are fundamentally different from finance sources that mainly chase commercial goals. Policy-based finance sources include public funds, climate funds, bilateral development banks and MDBs, and philanthropies. Within this bracket, there is an important further distinction between institutions that operate on a grant-based model, such as climate funds, and institutions that operate on a financial business model, such as development banks and development finance institutions (DFIs). The former depend entirely on the sustained provision of funds that are subsequently distributed; the latter typically cover their operational costs via their financing actions, ensuring their longevity as financial institutions. For instance, development banks offer loans to developing nations at more attractive terms than are available in private markets while DFIs, which are mandated to finance the private sector for

climate-related and other development aims, usually work on principles that prevent market distortion and the subsidising of private enterprises. Market-based finance sources, by contrast, are profit driven.

1.2.1. Sources of adaptation finance for projects with no or below market rate returns

The financial return expected from investments – below market, mixed (intermediary) and at market rate – also depends on the finance source's objectives. As shown in Figure 1.3, finance sources that provide capital without expecting a market rate financial return and operate primarily with a climate or development directive (e.g., climate funds, MDBs, philanthropy, etc.) get below market or mixed returns on their investments. As these are the only funders able to support activities without a financial return through the provision of grants, they are crucial for activities – e.g., capacity building – that generate substantial socio-economic advantages but offer limited financial return. These actors are also able to provide concessional lending for projects that have high risks, long duration and/or uncertain returns.

Finance sources that generate below market rate returns include:

- **Domestic public flows**. Governments in developing countries invest directly in adaptation using their own resources. According to the Climate Policy Initiative (CPI), domestic government finance globally for adaptation amounted to an annual average of USD 6.5 billion in 2019-20 (CPI, 2022[21]). As few governments currently track adaptation-related expenditure, the actual volume may well be greater. Given that many key areas for adaptation are linked to public sector responsibilities (e.g., provision of flood defences), domestic public climate finance is likely to represent one of the main financing sources for adaptation. The core analysis of this report does not cover this finance source.
- **Bilateral providers.** The 31 members of the OECD DAC and the group of 39 developed country parties (including the EU) that have committed to the USD 100 billion goal are important players in the context of development finance broadly and in the financing of adaptation more specifically. The OECD comprehensively tracks adaptation finance from these sources; in 2021, the OECD 100 billion report identified USD 9.6 billion of bilateral climate finance for adaptation (section 2.1).
- **MDBs** are increasingly aligning their lending operations with the goals of the Paris Agreement, with a focus on sovereign lending. According to OECD figures, climate finance for adaptation from MDBs attributable to developed countries amounted to USD 11.8 billion in 2021 (section 2.1).
- **Multilateral climate funds** include the Global Environment Facility, the Green Climate Fund and the Adaptation Fund, among others. In general terms, their mandates are to support the transition to a low GHG and climate-resilient future, and their financial resources are predominantly provided by developed countries. According to OECD figures, flows from multilateral climate funds accounted for USD 1.5 billion of recorded climate finance attributable to developed countries for adaptation in 2021 (section 2.1).
- **Philanthropy** is an increasingly important source of funding for low- and middle-income countries. Total recorded philanthropic flows for all development purposes averaged USD 10.6 billion between 2016-19 (OECD, 2021[22]). While modest compared with ODA, private philanthropy flows are an important source of development finance and for supporting blended finance. Philanthropies have been agile in changing conditions, have relatively low levels of risk aversion, and are often open to innovation in terms of both financial instruments and investments (OECD, 2021[22]; OECD, 2018[23]).

Though they are sources of adaptation finance in developing countries, philanthropy and domestic sources are not further covered or addressed in this report.

1.2.2. Sources of adaptation finance for projects with some expected return on investment

Some development finance actors can lend at close to market rates for projects that fit their dual development and financial profitability mandates. The underlying project needs to have a revenue stream, but these lenders can accept higher risk and/or provide capital on more favourable terms than would be available from the market. Such mixed sources include:

- **Bilateral and multilateral DFIs** ultimately source their capital from a single or multiple government budgets and capital markets. They can also benefit from government guarantees. These characteristics contribute to their creditworthiness, which in turn enables them to raise large amounts of money on capital markets and provide financing at competitive terms. Multilateral DFIs are often the private sector arms of international finance institutions. The scale of lending is constrained by the institution's capital and the level of risk exposure. The CPI identified an annual average USD 16.5 billion of adaptation finance from multilateral DFIs and a further USD 5.4 billion from bilateral DFIs in 2019-20 (CPI, 2022[21]).

1.2.3. Sources of adaptation finance for projects with an expected market rate of return

The market rate category of finance will only invest if the balance of risk and return is consistent with market expectations. Given that perceived risks are higher in developing countries, investors in this category would expect a higher financial return. Market rate investors will invest in projects with a solid and certain revenue stream, which is rarely the case for interventions that are solely aimed at adaptation. However, such investors may invest in activities with adaptation as a co-benefit. Strategic use of development and climate finance can help such unlock private investment by reducing risks and/or improving returns.

It is important to note that, unlike international public finance flows and the finance they may mobilise from other sources, not all investments relevant for adaptation will generate identifiable flows. Financial flows from market rate investors frequently go unrecognised as adaptation finance. For instance, private companies might invest in adaptation using retained earnings, proceeds from general purpose bonds or earnings from equity issuances rather through project finance. Similarly, households and micro enterprises are likely to use their savings to finance adaptation to climate change. It is currently not possible to track these investments, despite their continued importance to adaptation efforts. Box 1.2 discusses additional methodological challenges to tracking climate finance for adaptation.

Examples of sources of market rate adaptation finance include:

- **Institutional investors** such as pension funds, insurance companies, sovereign wealth funds and investment funds are a major potential source of capital for long-term investment. In principle, the longer-term returns from investments in adaptation match the liabilities of some types of institutional investors such as pension funds. However, regulations and depositors' expectations combine to limit the risk appetite of this type of investor. Given likely transaction costs, institutional investors are also looking for large investment opportunities of at least USD 10 million and frequently more than USD 100 million. Despite the scale of capital held by institutional investors, the CPI was able to identify only USD 0.5 billion of finance for adaptation from institutional investors (annual average in 2019-20) (CPI, 2022[21]).
- **Commercial banks** (both domestic and international) likely provide credit for adaptation investments by companies and households, though their contribution to finance for adaptation is currently unknown. Commercial banks, however, play a key role in originating the securities (debt, equity and derivative products) that would be needed to enable access to capital markets.
- **Private sector enterprises** – both domestic and international and ranging from small and medium enterprises to large corporates – invest in adaptation. They can invest with retained earnings and their existing equity without necessarily tapping into external finance from public or private finance

sources. The private sector may invest, for example, in drought-resistant crops or, in the case of large firms, in major infrastructure. There is very limited tracking of corporate finance for adaptation; the CPI identified USD 0.5 billion of finance flows from private sector enterprises in 2019-20 (CPI, 2022[21]).

1.3. Adaptation needs and finance flows in developing countries

1.3.1. Esimated investment needs for adaptation in developing countries

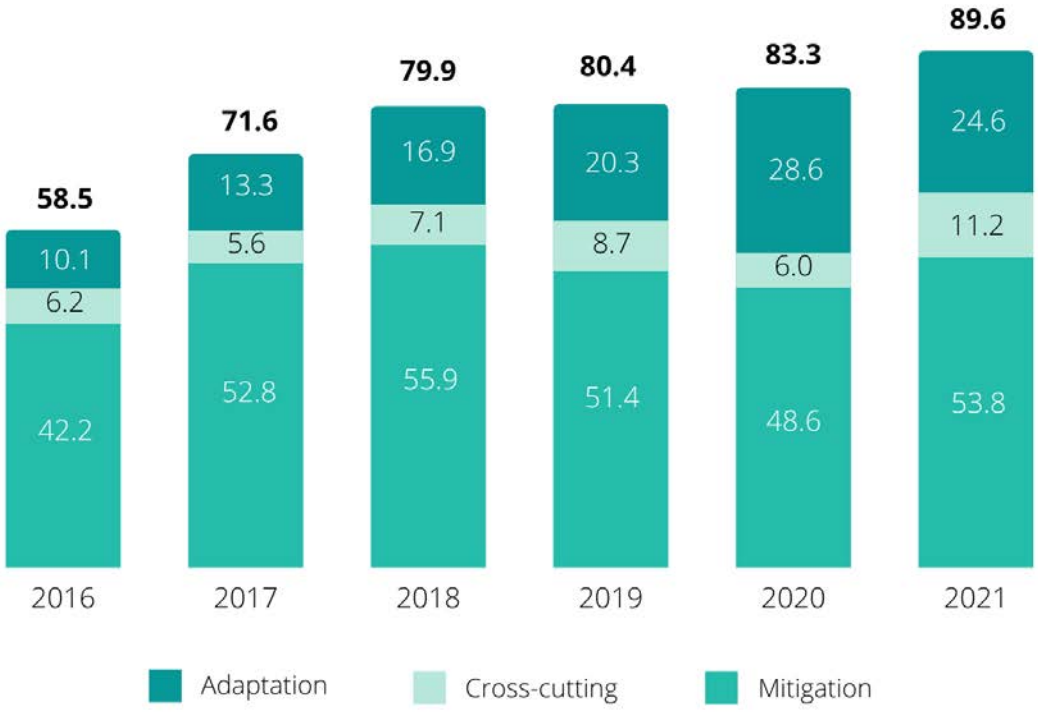
Despite methodological challenges, recent studies provide an indication of the possible scale, range and distribution of investments that will be needed for developing countries to adapt to climate change. The scope of these studies differs but they are broadly consistent with finance for adaptation, as defined in Figure 1.2. The UN Environment Programme, in its 2022 Adaptation Gap report, identified annual investment needs within developing countries of between USD 160 and USD 340 billion by 2030, rising to USD 315 billion to USD 565 billion by 2050. These estimates were generated using a top-down modelling approach that built on a 2010 World Bank study of the economics of adaptation to climate change (World Bank, 2010[24]). That World Bank analysis, which estimated adaptation costs by sector to identify the scale of investments needed to offset the impacts of climate change on economic welfare, found that the greatest needs relate to infrastructure, coastal zones, and water management and flood protection.

The Adaptation Committee of the UNFCCC used a different approach that aggregated the estimates of needs contained in developing countries' nationally determined contributions (NDCs) (UNFCCC, 2022[25]). However, countries use different a diversity of baselines, methodologies and objectives to generate the estimates in their NDCs, and thus the estimates are not directly comparable with each other or the 2010 World Bank study. Nonetheless, the UNFCCC found that adaptation needs for the 76 developing countries whose NDCs included estimates are of the same order of magnitude as the top-down estimates – i.e., USD 71 billion is needed annually until 2030. Sectoral analysis of these reported needs in the NDCs found financing needs are greatest in the water, infrastructure and agriculture sectors.

1.3.2. Measuring flows of climate finance for adaptation

The OECD regularly reports on progress towards the USD 100 billion goal.[4] Its analysis includes four components of climate finance provided and mobilised by developed countries[5] for developing countries: bilateral public climate finance, the share of multilateral public climate finance attributable to developed countries, climate-related officially supported export credits, and private finance mobilised by bilateral and multilateral public climate finance. According to results of this work, developed countries provided and mobilised USD 463.3 billion of climate finance, or an average of USD 77.2 billion a year, between 2016 and 2021. Of this total, adaptation finance (excluding cross-cutting finance) averaged USD 19 billion per year, or just 25% (Figure 1.4). Moreover, another USD 7.5 billion a year on average was destined to cross-cutting activities. While tracked finance for adaptation has increased consistently between 2016-20, it slightly dropped in 2021. In contrast, cross-cutting finance (which also targets adaptation objectives) increased in 2021 compared to 2020. Overall, most climate-related finance is still directed to mitigation. Among the factors that account for the high share of finance going to mitigation projects are their higher financial sustainability and returns, a historical emphasis on mitigation in climate policy, and the relative ease of measuring and quantifying mitigation outcomes.

Figure 1.4. Climate finance provided and mobilised by developed countries, 2016-21 (USD billions)



Source: Based on Biennial Reports to the UNFCCC, OECD DAC and Export Credit Group statistics, complementary reporting to the OECD

While the OECD analysis focusses on finance flows that count towards the USD 100 billion goal, the CPI analysis considers a broader spectrum of finance for adaptation from all sources. It estimated that finance for adaptation in developing countries reached USD 49 billion in 2020 and that a further USD 15 billion in finance went to projects that have both adaptation and mitigation benefits (CPI, 2022[21]). Only USD 1 billion of this recorded finance was from private sources. It should be noted that there are currently only isolated analyses of domestic and South-South public finance flows and very sparse coverage of private finance. The CPI figures, by consequence, likely understate trends in these flows (CPI, 2022[21]).

The available data on finance flows for adaptation also are not directly comparable with estimates of financing needs for adaptation. Only a subset of finance for adaptation is currently tracked, and only international public finance flows are systematically recorded. As noted, there are also considerable uncertainties and methodological challenges around estimates of adaptation costs. The level of underlying activity, recording accuracy and estimation methodologies also affect the scale of recorded adaptation finance flows. As there is little incentive for companies to collate or provide relevant data, there is a significant data gap around private sector activity. Therefore, it is difficult to gauge whether current financial flows are sufficient to meet adaptation needs in developing countries due to data coverage gaps and the considerable variance in scope and methodology. Nonetheless, available evidence suggests strongly that adaptation finance needs to be scaled up.

1.4. Enhancing the accessibility, efficiency, and effectiveness of international public finance for adaptation

Efforts to increase the quantity of finance for adaptation should not neglect the importance of ensuring the quality of the financed activities. Otherwise, funds might be used inefficiently and fail to benefit those

communities who most in need. There is even a risk of maladaptation wherein interventions that are intended to support adaptation ultimately undermine resilience over the longer term. From the perspective of international providers, financing adaptation fits squarely within the broader purpose of fostering developing countries' development or at least to maintaining their current level of development.

Lessons learned from the development co-operation effectiveness agenda have generated a broadly endorsed set of principles that are relevant to climate and adaptation finance. The principles of effective development in the Busan Partnership agreements offer practical guidance for increasing the effectiveness of development finance supporting adaptation in developing countries (MOIC, 2022[26]). The agreements, reflecting decades of experience of donors and developing countries working together, acknowledge that development finance alone does not ensure the success or effectiveness of an individual activity. The Busan Partnership effectiveness principles, endorsed by 161 countries and 56 organisations, spotlight:

- **Country ownership**. International providers should work to support developing countries' priorities, working through country systems where possible.
- **Focus on results**. Interventions should achieve measurable, sustainable results that are aligned with national priorities.
- **Inclusive development partnerships**, Strong collaboration and co-ordination between partners are needed to avoid fragmentation and duplication of efforts.
- **Transparency and accountability**. Partners share the responsibility for ensuring that relevant information is available to ensure mutual accountability.

Likewise, the OECD Blended Finance Principles incorporate good practices to maximise the effectiveness of international public finance in attracting private finance, including private finance for adaptation activities. The principles emphasise that development finance should be used strategically to achieve financial sustainability and scalability over time so that it does not crowd out private finance. They also underscore the need to ensure that blended finance interventions have a clear development rationale and are tailored to local needs, priorities and context.

The Busan Principles resonate with Article 7.5 of the Paris Agreement, which states that "that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach... with a view to integrating adaptation into relevant socio-economic and environmental policies and actions, where appropriate." (Paris Agreement, 2015[27]).

References

Core Writing Team, H. Lee and J. Romero (2023), *Climate Change 2023: Synthesis Report*, IPCC, Geneva, Switzerland, https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf (accessed on 10 May 2023). [1]

CPI (2022), "Global Landscape of Climate Finance: A Decade of Data: 2011-2020", https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-a-decade-of-data/ (accessed on 25 April 2023). [21]

EIB (2022), *Joint methodology for tracking climate change adaptation finance*, https://www.eib.org/attachments/lucalli/20220242_mdbs_joint_methodology_climate_finance_en.pdf. [19]

Hammill, A. and H. McGray (2018), *Is it Adaptation or Development?*, https://www.iisd.org/story/is-it-adaptation-or-development/ (accessed on 22 May 2023). [16]

Heubaum, H. et al. (2022), "The Triple Dividend of Building Climate Resilience: Taking Stock, Moving Forward", *World Resources Institute*, https://doi.org/10.46830/WRIWP.21.00154. [15]

Mehryar, S. (2022), *What is the difference between climate change adaptation and resilience?*, Grantham Research Insitute on Climate Change and the Environment, https://www.lse.ac.uk/granthaminstitute/explainers/what-is-the-difference-between-climate-change-adaptation-and-resilience/ (accessed on 22 May 2023). [5]

MOIC (2022), *Sharm el Sheik Guidebook for Just Financing*, https://guidebookforjustfinancing.com/wp-content/uploads/2022/11/Sharm-El-Sheikh-Guidebook-for-Just-Financing.pdf (accessed on 7 April 2023). [26]

Mullan, M. (2022), *Climate-resilient finance and investment : Framing paper*, OECD Publishing, Paris, https://doi.org/10.1787/223ad3b9-en (accessed on 26 September 2022). [14]

OECD (2023), *Results of the survey on the coefficients applied to 2019-20 Rio Marker data when reporting to the UN environmental Conventions*, https://one.oecd.org/document/DCD/DAC/STAT(2022)24/REV1/en/pdf. [18]

OECD (2023), *Scaling up the mobilisation of private finance for climate action in developing countries: Challenges and opportunities for international providers*, https://doi.org/10.1787/17a88681-en. [4]

OECD (2022), *Building Financial Resilience to Climate Impacts: A Framework for Governments to Manage the Risks of Losses and Damages*, OECD Publishing, Paris, https://doi.org/10.1787/9e2e1412-en. [10]

OECD (2022), *Climate Finance Provided and Mobilised by Developed Countries in 2016-2020: Insights from Disaggregated Analysis*, Climate Finance and the USD 100 Billion Goal, OECD Publishing, Paris, https://doi.org/10.1787/286dae5d-en. [9]

OECD (2021), *Managing Climate Risks, Facing up to Losses and Damages*, OECD Publishing, Paris, https://doi.org/10.1787/55ea1cc9-en. [7]

OECD (2021), *OECD DAC Declaration on a new approach to align development co-operation*. [3]

OECD (2021), *Private Philanthropy for Development - Second Edition: Data for Action*, The Development Dimension, OECD Publishing, Paris, https://doi.org/10.1787/cdf37f1e-en. [22]

OECD (2020), *Common Ground Between the Paris Agreement and the Sendai Framework - Climate Change Adaptation and Disaster Risk Reduction*, OECD Publishing, Paris, https://doi.org/10.1787/3edc8d09-en. [12]

OECD (2018), *Making Blended Finance Work for the Sustainable Development Goals*, OECD Publishing, Paris, https://doi.org/10.1787/9789264288768-en. [23]

OECD (2017), *OECD DAC Rio Markers for Climate: Handbook*, OECD, Paris, https://www.oecd.org/dac/environment-development/Revised%20climate%20marker%20handbook_FINAL.pdf (accessed on 19 February 2019). [17]

OECD (2009), *Integrating Climate Change Adaptation into Development Co-operation*. [6]

Paris Agreement (2015), *Paris Agreement*, https://treaties.un.org/doc/Publication/UNTS/No%20Volume/54113/Part/I-54113-0800000280458f37.pdf (accessed on 10 May 2023). [27]

Tall, A. et al. (2021), *Enabling Private Investment in Climate Adaptation and Resilience*, World Bank, Washington, DC, http://hdl.handle.net/10986/35203 (accessed on 11 April 2023). [20]

UNFCCC (2022), *COP27 Reaches Breakthrough Agreement on New "Loss and Damage" Fund for Vulnerable Countries*, United Nations Climate Change, https://unfccc.int/news/cop27-reaches-breakthrough-agreement-on-new-loss-and-damage-fund-for-vulnerable-countries (accessed on 14 June 2023). [8]

UNFCCC (2022), "Efforts of developing countries in assessing and meeting the cost of adaptation: Lessons learned and good practices", *Draft synthesis report by the Adaptation Committee in the context of the recognition of adaptation efforts of developing countries*, https://unfccc.int/documents/611587 (accessed on 6 April 2023). [25]

UNFCCC (2021), *Glasgow Climate Pact*, https://unfccc.int/documents/310475 (accessed on 10 May 2023). [2]

United Nations (2015), *Sendai Framework for Disaster Risk Reduction 2015 - 2030*, https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030. [13]

United Nations Office for Disaster Risk Reduction (n.d.), *Sendai Framework Terminology on Disaster Risk Reduction*, https://www.undrr.org/terminology/disaster-risk-reduction. [11]

World Bank (2010), *Economics of adaptation to climate change - Synthesis report*, http://documents.worldbank.org/curated/en/646291468171244256/Economics-of-adaptation-to-climate-change-Synthesis-report (accessed on 7 April 2017). [24]

Notes

[1] This article calls for making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

[2] At the 15th Conference of Parties (COP15) under the United Nations Framework Convention on Climate Change in Copenhagen in 2009, developed countries committed to a collective goal of mobilising USD 100 billion per year by 2020 for climate action in developing countries, in the context of meaningful mitigation action and transparency on implementation. At COP21 in Paris in 2015, the timeline to reach this goal was extended to 2025, and since then, at the request of contributor countries, the OECD has produced analyses of progress towards this goal.

[3] In its 2018 glossary of terms, the Intergovernmental Panel on Climate Change defines adaptation as follows (italics in the original): "In *human systems*, the process of adjustment to actual or expected *climate* and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects". See https://www.ipcc.ch/sr15/chapter/glossary/.

[4] At COP15 of the UNFCCC in Copenhagen in 2009, developed countries committed to a collective goal of mobilising USD 100 billion per year by 2020 for climate action in developing countries. At COP21 in 2015 in Paris, the target for th eannual USD 100 billion goal was extended to 2025. Since 2015, at the request of donor countries, the OECD has produced analyses of progress towards this goal.

[5] In this context, developed countries are Annex II Parties to the UNFCCC, EU members states, Liechtenstein and Monaco.