





THE GLOBAL CLIMATE FINANCE ARCHITECTURE

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CLIMATE FINANCE FUNDAMENTALS

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limate finance remains central to achieving low-emission, climate resilient development. The global climate finance architecture is complex and always evolving. Funds flow through multilateral channels – both within and outside of the United Nations Framework Convention on Climate Change (UNFCCC) and Paris Agreement Financial Mechanisms – and increasingly through bilateral, as well as through regional and national climate change channels and funds. Monitoring the flows of climate finance is difficult, as there is no agreed definition of what constitutes climate finance or consistent accounting rules. The wide range of climate finance mechanisms continues to challenge coordination and defy cohesion. But efforts to increase inclusiveness and complementarity, as well as to simplify access, continue.

Introduction: climate finance

Climate finance refers to the financial resources mobilised and provided to fund actions that mitigate, adapt to and address the impacts of climate change, including public climate finance commitments by developed countries under the UNFCCC, although a universal definition of the term 'climate finance' is yet to be agreed internationally. Instead, there have been efforts to update an operational definition of climate finance¹, most recently in the Standing Committee on Finance (SCF) in its sixth biennial assessment report of finance flows (UNFCCC, 2024a). In the 2009 Copenhagen Accord (UNFCCC, 2010), and confirmed in the Cancun Decision (UNFCCC, 2011) and Durban Platform (UNFCCC, 2012), developed countries pledged to deliver finance approaching USD 30 billion between 2010 and 2012 with contributor countries at the end of the fast-start finance period self-reporting that these targets were exceeded (Nakhooda et al., 2013). The Paris Agreement (UNFCCC, 2015) reiterated that developed countries should take the lead in mobilising and providing climate finance "from a wide variety of sources, instruments and channels" in a "progression beyond previous efforts". The accompanying Conference of the Parties (COP) decision agreed to set a new collective quantified goal by 2025 by scaling up from a floor of USD 100 billion pledged in Copenhagen to be reached annually by 2020 (UNFCCC, 2016). Deliberations on this new collective quantified goal on climate finance (NCQG) were initiated at COP26 in Glasgow in 2021 with a focus on expanding the scale, scope and quality of climate finance provision in a way that is scienceand needs-based. A three-years process for this NCQG concluded at COP29 in Baku in 2024 with a hard-fought decision reached last minute. Difficult negotiations pitted

developing countries' contention that the new climate finance goal should be understood in the context of the equity provisions of the UNFCCC with a central commitment of public funding provision by developed countries, against the understanding by developed countries that the goal was a mobilisation target under the Paris Agreement only with developed countries taking the lead in delivering finance to developing countries. Within its five-page text, the NCQG decision sets the new goal, "with developed country Parties taking the lead, of at least USD 300 billion per year by 2035 for developing country Parties for climate action" and calls for "all actors to work together to enable the scaling up of financing to developing country Parties for climate action from all public and private sources to at least USD 1.3 trillion per year by 2035" (UNFCCC, 2024b).

Many countries have highlighted the need for scaledup international support in implementing their National Adaptation Plans (NAPs) as well as increasing the ambition of their Nationally Determined Contributions (NDCs), as captured most recently by the UNFCCC's Standing Committee on Finance (SCF) in a second Needs Determination Report (UNFCCC, 2024b). Ensuring that adequate finance and investment is available to realise these goals remains the major challenge going forward (UNFCCC, 2023a; IHLEG 2024). Developing countries have also made the case for finance to address loss and damage already occurring in their countries as a result of climate change as the third climate finance pillar in addition to support for adaptation and mitigation (V20, 2022; hbs et al., 2021). In response, at COP27 Parties decided to establish new funding arrangements for addressing loss and damage, including a Fund for responding to Loss and Damage

(FRLD). The core modalities of the FRLD were negotiated throughout 2023 and approved at COP28 in Dubai. COP29 in Baku confirmed its set-up as a financial intermediary fund (FIF) with a World Bank-hosted secretariat until at least COP33 after its first year of operations.

Like the USD 100 billion goal before, the NCQG does not specify how much of the USD 300 billion per year by 2035 is to come from developed countries' public finance provision as opposed to the finance that could be mobilised from private actors, nor does it contain benchmarks or targets on how to reach the ramped up financial mobilisation by 2035. Absent from the NCQG decision are any references to core climate finance principles under the UNFCCC such as on adequacy or predictability (for a detailed elaboration, see CFF1). Funds are to come from a wide variety of sources, public and private, bilateral, multilateral and including alternative sources. While the NCQG decision acknowledges the need for public and grant-based resources and highly concessional finance particularly for adaptation and for responding to loss and damage in Small Island Developing States (SIDS) and Least Developed Countries (LDCs), it does not set new ambitious adaptation finance commitments. Instead the COP26 promise of developed countries to at least double their provision of adaptation finance from 2019 levels by 2025 remains the latest commitment in the face of multiple calls to scale adaptation finance. While a recent OECD report declared that this doubling is on track (OECD, 2024a), a report by the SCF illustrated the challenges of establishing a baseline for this doubling (UNFCCC, 2024d). It remains also unclear whether funding for responding to loss and damage is included as part of the NCQG.

The NCQG decision reiterates the importance of reforming the multilateral financial architecture to support financing climate action. It lays out commitments for specific actors in the global climate finance architecture, in particularly for the multilateral climate funds that sit under the UNFCCC Financial Mechanism and the Adaptation Fund.

Public resources flowing through the operating entities of the UNFCCC Financial Mechanism, the Global Environment Facility (GEF) and the Green Climate Fund (GCF), as well as the Adaptation Fund, the Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF) should see "a significant increase of public resources" channeled through them to developing countries with efforts to "at

least triple annual outflows" of these funds from 2022 levels by 2030 as a way to "significantly scaling up the share of finance delivered through them". However, this goal is not overly ambitious, as 2022 was a year with lower financial outflows for the funds in question as compared to the three preceding years (UNFCCC, 2024a) but suggests outflows of over USD 5 billion in 2030 (see Table 1, as drawn from CFU data). While the FRLD is an operating entity of the UNFCCC Financial Mechanism, it was not yet operationalised in 2022.

Contrary to accounting under the USD 100 billion goal, under the NCQG all climate-related outflows from and climate-related finance by the multilateral development banks (MDBs), which includes financial inputs into MDBs by some developing countries such as China, could be counted towards the fulfillment of the goal. This has to be seen in light of the commitment made by a group of 11 MDBs at COP29 in Baku to channel collectively by 2030 per annum USD 120 billion in climate finance to low- and middle-income countries, with an additional USD 50 billion annually for high income countries (Word Bank, 2024).

The NCQG decision highlights the importance of reducing existing constraints, challenges, systemic inequities and barriers to access to climate finance, such as the high cost of capital, co-financing requirements and burdensome application processes. It calls on dedicated multilateral climate funds to prioritise direct access, programmatic approaches and harmonising and making more flexible approval and information requirements and disbursement processes. The spotlight is also turned to access to other forms of finance for the first time. The NCQG urges bilateral climate finance providers to expand multi-year programmatic programming and increase support for locally-led approaches, especially in adaptation; and, it invites in particular MDBs to deploy more non-debtinducing financial instruments and to scale up highly concessional finance, including through simplifying access and revamping MDB's risk perception and risk appetite. Progress toward those mandates to improve access will be assessed in 2030, and thus halfway toward fulfillment of reaching the NCQG (UNFCCC, 2024b).

The NCQG decision further launches a one-year process under the COP29 and COP30 Presidencies for a "Baku to Belém Roadmap to 1.3T" with the intention to scale up climate finance to developing countries to support low-

Table 1: 2022 outflows of multilateral climate funds within the NCQG decision calling for tripling by 2030

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Multilateral climate fund named by the NCQG decision		Estimated tripling by 2030
Global Environment Facility (GEF)	115	345
Green Climate Fund (GCF)	1,504	4,512
Adaptation Fund (AF)	126	378
Least Developed Countries Fund (LDCF)	130	390
Special Climate Change Fund (SCCF)	1	3
TOTAL	1,876	5,628

Source: CFU data. These numbers vary from those in the sixth Biennial Assessment. This is due to retrospective updating in CFU as a result of improved data coverage, project changes, other changes verified by fund managers over time and method differences, such as the addition of readiness projects.

emission and climate-resilient development and implement their Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) through concessional and non-debt creating instruments and measures to create fiscal space. As of early 2025, neither the process, the roadmap's focus or scope, the role of different actors and climate finance channels, nor how the roadmap will be considered at COP30 is clear. As a successor to the first climate finance goal set in 2009, it remains to be seen if the NCQG mandates and commitments are sufficient to accelerate the historically low and slow trajectory for ramping up finance mobilised by developed countries for developing countries' climate action. Such slow pace risks undermining climate ambition, especially as 2025 is the year that Parties must submit new NDCs to climate action. Trust and confidence remains low between Parties, particularly as the NCOG did not even address the delay of developed countries in meeting the USD 100 billion a year commitment by 2020 until 2022 (OECD, 2024b).

A study commissioned by the French and Peruvian governments, in their respective capacities as Presidents of COP21 and COP20, concluded that USD 62 billion in public and private sources were directed to developing countries from developed countries in 2014 (OECD, 2015). This increased to USD 83.3 billion in 2020 and USD 89.6 billion in 2021 (OECD, 2022; OECD, 2024b). For 2022, the OECD estimated that a total of USD 115.9 billion in climate finance had been mobilised and provided by developed countries to developing countries, thereby exceeding, for the first time, the target of 100 billion that developed countries were expected to reach by 2020 (OECD, 2024b). It is notable that in this wider reading of climate-related funding a substantial part comes from the private sector and the additionality of public finance identified is unclear (i.e. how much of this represents effort over and above existing development finance commitments). Climate Finance Fundamentals 1 (CFF1)3 presents a longer discussion of the principle of additionality. The Biennial Assessment and Overview of Climate Finance Flows of the UNFCCC in its sixth edition released in 2024 reports climate-specific finance and core general funding provided by Annex II Parties to developing countries has grown from USD 42 billion of public international finance flowing to developing countries in 2013-2014, to USD 49 billion annually in 2015-2016, USD 52 billion annually in 2017-2018 and an average of USD 53 billion per year in 2019-2020. For 2021-2022, preliminary data showed USD 58 billion per year on average was provided (UNFCCC, 2024d). However, these figures remain small in comparison to the estimated USD 1.3 trillion in annual climate finance flows for the 2021-2022 period, which includes both public and private finance from all countries, with the vast majority of financial flows among and within developed countries (Naran et al., 2024; UNFCCC, 2024d).

Figure 1 presents an overview of the global climate finance architecture, focusing particularly on public climate-related financing mechanisms. There are a number of channels through which climate finance flows, including through multilateral climate funds that are dedicated to addressing climate change. Several developed countries have also

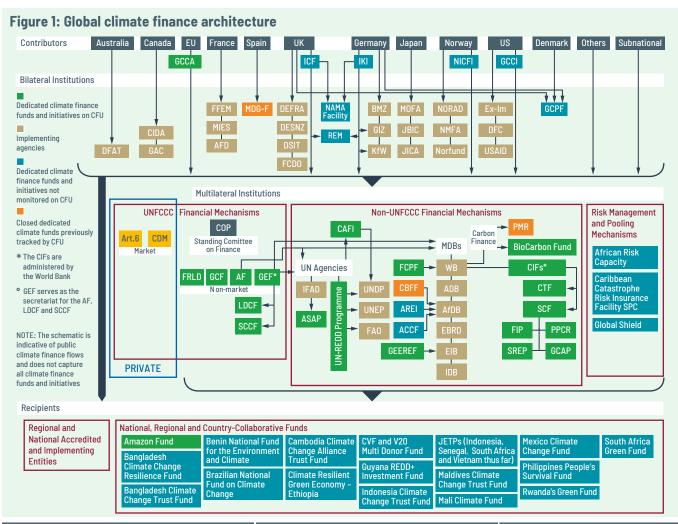
established climate finance initiatives or are channelling climate finance through their bilateral development assistance institutions. Many developing countries have also set up regional and national funds and collaborative channels to receive climate finance. By December 2024, three global climate funds (the GCF, the FRLD and Adaptation Fund) had received USD 142 million in pledges from three subnational governments (Brussels, Wallonia and Flanders) and the cities of Quebec and Paris. The types of climate finance available vary from grants and concessional loans, to guarantees and private equity. The architecture has differing structures of governance, modalities and objectives. While the transparency of climate finance programmed through multilateral initiatives is increasing, detailed information on bilateral initiatives, regional and national funds is often less readily available.

A multitude of funding channels increases the options and therefore possibilities for recipient countries to access climate finance, and theoretically also the possibilities to provide funding complementarity, but it can also make the process more complicated. It becomes increasingly difficult to monitor, report and verify (MRV) climate finance, to coordinate a response, as well as to account for its effective and equitable use. There is opportunity, however, to draw lessons from the diversity about how best to structure climate finance to maximise impacts, and the environmental, gender equality and social co-benefits. The Climate Funds Update (CFU) website seeks to track this intricate architecture. CFU tracks operating entities of the UNFCCC, large multilateral climate funds that feature prominently in reporting to the UNFCCC and funds that have had a significant demonstration role. It does not track all climate funds or all channels of climate finance, due to available information as well as resource limitations.

Multilateral channels for climate finance

Multilateral climate finance initiatives often break from contributor country-dominated governance structures, typical in development finance institutions. This gives developing-country governments greater voice and representation in decision-making. Steps to increase inclusion and accountability in multilateral climate fund governance have been taken, including by creating a role for non-governmental stakeholders as observers to fund meetings, with varying degrees of active participation opportunities.

Established in 1991, the **Global Environment Facility (GEF)** is an operating entity of the Financial Mechanism of the UNFCCC, serving the same function for the Paris Agreement, with a long track record in environmental funding. It also serves as a Financial Mechanism for several other conventions, including on biodiversity and desertification. Resources are allocated to target multiple focal areas, including climate change, according to the impact of dollars spent on environmental outcomes but also ensuring all developing countries have a share of the funding. For the sixth replenishment of the GEF (GEF-6, 2014–2018), 30 donor countries pledged USD 4.43 billion over all focal areas, of which USD 1.26 billion supported the climate change focal area. GEF-6 shifted



Implen	nenting Agencies and Institutions	Multilater	al Funds and Initiatives	Bilateral Fu	nds and Initiatives
AfDB	African Development Bank	AAAF	Africa Adaptation Acceleration Program	GCCI	Global Climate Change Initiative (US)
AFD	Agence Française de Développement (French development agency)	ACT	Accelerating Coal Transition program (implemented through WB, ADB, AfDB, EBRD and IDB)	GCPF	Global Climate Partnership Fund (Germany, UK and Denmark)
ADB	Asian Development Bank	AF	Adaptation Fund (GEF acts as secretariat and WB as trustee)	ICF	International Climate Finance (UK)
BMZ	Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung (federal ministry of economic cooperation and	ACCF	Africa Climate Change Fund	IKI	Internationale Klimaschutzinitiative (international climate initiative, Germany)
	development, Germany)	AREI	African Renewable Energy Initiative		
CIDA	Canadian International Development Agency	Aut C	Article 6 market and non-market approaches	MDG-F	MDG Achievement Fund (implemented by UNDP)
DESNZ	Department for Energy Security and Net Zero (UK)	Art.6	(implemented under the Paris Agreement)		
DEFRA	Department for Environment, Food and Rural Affairs (UK)	ASAP	Adaptation for Smallholder Agriculture Programme		Nationally Appropriate Mitigation Action Facility (UK, Germany, Denmark and the EC)
DFAT	Department of Foreign Affairs and Trade (Australia)	CAFI	Central African Forest Initiative	NAMA Facility	
DFC	United States International Development Finance Corporation	CBFF	Congo Basin Forest Fund (hosted by AfDB)	MOE	Norway's International Climate Forest Initiative
DSIT	Department for Science, Innovation and Technology (UK)	CDM	Clean Development Mechanism (implemented under the	NICFI	
EBRD	European Bank for Reconstruction and Development		Kyoto Protocol)	REM	REDD+ Early Movers (Germany and UK)
EIB	European Investment Bank	CIF	Climate Investment Funds (implemented through WB, ADB, AfDB, EBRD and IDB)		
Ex-Im	Export-Import Bank of the United States	CTF	Clean Technology Fund (implemented through WB, ADB,		
FAO	Food and Agriculture Organization of the United Nations		AfDB, EBRD and IDB)		
FCD0	Foreign, Commonwealth and Development Office (UK)	FCPF	Forest Carbon Partnership Facility		
FFEM	Fonds Français pour l'Environnement Mondial (French global environment facility)	FIP	Forest Investment Program (implemented through WB, ADB, AfDB, EBRD and IDB)		
GAC	Global Affairs Canada	FRLD	Fund for responding to Loss and Damage		
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (German technical cooperation)	GCAP	Global Climate Action Programs (implemented through WB, ADB, AfDB, EBRD and IDB)		
IDB	Inter-American Development Bank	GCCA	Global Climate Change Alliance		
FAD	International Fund for Agricultural Development	GCF	Green Climate Fund		
JBIC	Japan Bank of International Cooperation	GEF	Global Environment Facility		
JICA	Japan International Cooperation Agency	GEEREF	Global Energy Efficiency and Renewable Energy Fund		
KfW	Kreditanstalt für Wiederaufbau (German development bank)		(hosted by EIB)		
MIES	Mission Interministérielle de l'Effet de Serre (inter-ministerial	LDCF	Least Developed Countries Fund (hosted by the GEF)		
TIES	taskforce on climate change, France)	PMR	Partnership for Market Readiness		
MOFA	Ministry of Foreign Affairs (Japan)	PPCR	Pilot Program for Climate Resilience (implemented through WB, ADB, AfDB, EBRD and IDB)		
NMFA	Norwegian Ministry of Foreign Affairs	SCCF	Special Climate Change Fund (hosted by the GEF)		
Norfund	Norwegian Investment Fund for developing countries		Strategic Climate Fund (implemented through WB, ADB,		
NORAD	Norwegian Agency for Development Cooperation	SCF	AfDB, EBRD and IDB)		
UNDP	United Nations Development Programme	Scaling Up Renewable Energy Program in Low Income			
UNEP	United Nations Environment Programme	SREP	Countries (implemented through WB, ADB, AfDB, EBRD and IDB)		
USAID	United States Agency for International Development	UN-REDD	United Nations Collaborative Programme on Reducing		
WB	World Bank	Programme	Emissions from Deforestation and Forest Degradation		

the focus of its programming to targeting multiple focal areas including climate change, in thematic areas such as sustainable cities and land use and forests. For the seventh replenishment period (GEF-7, 2019-2022), close to 30 countries pledged USD 4.1 billion for all five focal areas, with an increase in funding for biodiversity and land degradation, but a reduction in funding for climate change to USD 728 million. For the eighth replenishment period (GEF-8, 2022-2026), 32 donor governments pledged USD 5.33 billion but only USD 906 million is dedicated to the climate change focal area. As of December 2024, through the fourth, fifth, six, seventh and eighth Trust Fund, GEF had approved over 995 projects in the focal area of climate change amounting to USD 4.5 billion.

The GEF also administers the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) under the guidance of the UNFCCC COP. These funds support NAPs development and implementation, although largely through smaller scale projects (with a country ceiling for funding of USD 20 million). As of December 2024, the LDCF had approved USD 1.5 billion for 320 projects, with cash transfers to projects of USD 548 million, while the SCCF had approved USD 289 million for 75 projects, making cash transfers of USD 204 million.

Formally linked to the UNFCCC, the Adaptation Fund (AF) receives funding through a 2% levy on the sale of emission credits from the Clean Development Mechanism (CDM) of the Kyoto Protocol. Now mandated to serve the Paris Agreement, a similar automated funding source from the new carbon market mechanism developed under the Paris Agreement is being set up. Following agreement at COP26 in Glasgow, the AF will receive 5% of the share of proceeds from the sale of emissions credits under the new CDMreplacement Article 6.4 market mechanism (UNFCCC, 2021). However, in times of low carbon prices, the AF is increasingly reliant on developed-country grant contributions to stay afloat. Operational since 2009, total financial inputs amount to USD 2.1 billion, with total cash transfers to projects of USD 756 million. The AF pioneered direct access to climate finance for developing countries through accredited national implementing entities that are able to meet agreed fiduciary as well as environmental, social and gender standards, as opposed to working solely through UN agencies or MDBs as multilateral implementing agencies.

The Green Climate Fund (GCF) of the UNFCCC was agreed at the Durban COP and became fully operational with its first projects approved at the end of 2015. Like the GEF, it serves as an operating entity of the Financial Mechanism of both the UNFCCC and the Paris Agreement and receives guidance by the COP. As the largest multilateral climate fund, it is intended to fund the paradigm shift towards climate-resilient and low-carbon development in developing countries with a country-driven approach, and a commitment to a 50:50 balanced allocation of finance to adaptation and mitigation. The initial resource mobilisation process for the GCF raised USD 10.3 billion. However, the failure by the United States to fulfil USD 2 billion of its USD 3 billion contribution agreement, in addition to exchange-rate fluctuations, means that only USD 7.1 billion were ultimately available for the period 2015-2019 (CFF 11 discusses the GCF

and its replenishment process in more detail). The GCF's first formal replenishment (GCF-1) had resulted in pledges from 34 contributors of funds amounting to USD 10 billion for the period 2020-2023, as well as a payment of USD 1 billion of the United States, which sat out GCF-1, still owed from the initial resource mobilisation period. The GCF's ongoing second replenishment period 2024-2027 (GCF-2), which started in 2023, technically exceeds this funding level with a total of USD 13.6 billion pledged by 34 countries for programming over the next four years, although the Trump administration announced that it rescinds all outstanding US pledges to the GCF worth USD 4 billion, including USD 1 billion left from the initial resource mobilisation phase (Mathiesen, 2025) (see briefing CFF 11 for a full list of pledges).

Developing countries can access the GCF both through MDBs, international commercial banks and UN agencies, as well as directly through accredited public and private sector national, regional and sub-national implementing entities. By December 2024, the implementing partner network of the GCF had grown to 139 accredited entities and the GCF had a portfolio of 286 active projects with USD 15.9 billion in GCF funding commitments for approved projects and USD 5.2 billion disbursed.

At COP27, Parties decided to establish new funding arrangements for addressing loss and damage, including a Fund for responding to Loss and Damage Fund (FRLD). The new fund's core modalities were negotiated throughout 2023 (Schalatek, 2023) and its governing instrument was approved at COP28 in Dubai (UNFCCC, 2023b), with interim hosting arrangements for its secretariat at the World Bank confirmed by COP29 in Baku (UNFCCC, 2024e). The new FRLD Board worked in 2024 to advance the fund's institutional set-up, with the fund's operational policies and funding procedures, including initial funding arrangements for a funding start in 2025, still to be identified (UNFCC, 2024f). The FRLD joins the GCF and GEF as an operating entity of the Financial Mechanism of both the UNFCCC and the Paris Agreement in receiving annual guidance from the COP. Its purpose is to assist developing countries that are particularly vulnerable to the adverse effects of climate change in responding to economic and non-economic loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events. As of January 2025, 25 governments, one subnational government, and the European Commission pledged USD 741 million to the Fund.

At COP16, the **Standing Committee on Finance (SCF)** was established under the UNFCCC to assist the COP in meeting the objectives of the Financial Mechanism of the Convention. The SCF⁴ has been tasked with, among other things, preparing a biennial assessment of climate finance flows, the sixth of which was published in 2024 and details the finance flows from 2021–2022 (UNFCCC, 2024a). From 2028, the SCF is also mandated to publish a biennial progress report on the NCQG decision.

A substantial volume of climate finance has been channelled through institutions that are not directly under the guidance of the UNFCCC COP and the Paris Agreement.

The Climate Investment Funds (CIFs) established in 2008 are administered by the World Bank, but operate in partnership with regional development banks including the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD) and the Inter-American Development Bank (IDB). The CIFs finance programmatic interventions in selected developing countries, with the objective of improving understanding of how public finance is best deployed at scale to assist transformation of development trajectories. The CIFs have a total pledge of USD 11.6 billion. They include a Clean Technology Fund (CTF) with now USD 8.93 billion in contributions⁵ and USD 2.19 billion in cash transfers to projects to date, and a Strategic Climate Fund (SCF), with USD 2.68 billion in contributions and USD 1.61 billion in cash transfers to projects as of December 2024. The SCF is composed of the Pilot Program for Climate Resilience (PPCR), the Forest Investment Program (FIP), the Scaling Up Renewable Energy Program in Low Income Countries (SREP) and the Global Climate Action Programs (GCAP) with several sub-programmes, including on smart cities and industrial decarbonisation. While the CIFs had a sunset clause that would come into effect when a global architecture was in place - commonly understood to be the operationalisation of the GCF - in 2019 this clause was once again revisited and this time indefinitely postponed, opening the door to a recapitalisation of the CIFs. The CIFs have also established the Accelerating Coal Transition program (ACT) under the CTF that will act in a number of coal-reliant developing countries, while ACT is a key partner in South Africa's Just Energy Transition Programme (see below).

Multilateral development banks (MDBs) play a prominent role in delivering multilateral climate finance, with climate finance commitments of USD 59 billion made in 2023 alone (EIB et al., 2024). Many have incorporated climate change considerations into their core lending and operations, and most MDBs now also administer climate finance initiatives with a regional or thematic scope. The World Bank's carbon finance unit has established the Forest Carbon Partnership Facility (FCPF) to explore how carbon market revenues could be harnessed to reduce emissions from deforestation and forest degradation, forest conservation, sustainable forest management and the enhancement of forest carbon stocks (REDD+). It also manages the Partnership for Market Readiness (PMR), aimed at helping developing countries establish market-based mechanisms to respond to climate change and the BioCarbon Fund, which is a public-private partnership that mobilises and provides finance for sequestration or conservation of carbon in the land use sector. The European Investment Bank administers the European Union's (EU) Global Energy Efficiency and Renewable Energy Fund (GEEREF). The African Development Bank also finances enhanced climate finance readiness in African countries through the German-funded Africa Climate Change Fund (ACCF), whose first projects were approved in 2015. The African Development Bank is also the Trustee for the Africa Renewable Energy Initiative (AREI) and houses the AREI Trust Fund with expected USD 10 billion in resources. It also supports the Africa Adaptation Acceleration Program (AAAP) with the goal to mobilise USD 25 billion in resources by the end of 2025.

Both MDBs and UN agencies act as implementing entities for the GEF, SCCF, LDCF, AF and the GCF. Like MDBs, UN agencies commonly take on the role of administrator and/or intermediary of climate finance. The UN-REDD Programme, made operational in 2008, brings together the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) to support REDD+ activities, with the governance structure giving representatives of civil society and Indigenous Peoples' organisations a formal voice. The International Fund for Agriculture and Development (IFAD) administers the Adaptation for Smallholder Agriculture Programme (ASAP) that supports smallholder farmers in scaling up climate change adaptation in rural development programmes.

Bilateral channels for climate finance

A significant share of public climate finance is spent bilaterally and administered largely through existing development agencies, although a number of countries have also set up special bilateral climate funds. There is limited transparency and consistency in reporting of some bilateral finance for climate change, however, with countries selfclassifying and self-reporting climate-relevant financial flows without a common reporting format or independent verification. The 2024 Biennial Assessment reported that USD 38.4 billion annually in 2021-2022 was provided by developed to developing countries bilaterally, in addition to that spent through climate funds and development finance institutions (UNFCCC, 2024a). An annual average of nearly USD 50 billion in climate-related official development assistance (ODA) was reported to the Organisation for Economic Cooperation and Development's Development Assistance Committee (OECD DAC) in the same year.

Germany's Internationale Klimaschutzinitiative (IKI, international climate initiative) has provided a total of almost EUR 7 billion for more than 1000 mitigation, adaptation, and REDD+ projects since its establishment in 2008. The initiative is innovatively funded partly through the sale of national tradable emission certificates, providing finance that is largely additional to existing development finance commitments (BMUV, 2024).

The Government of the United Kingdom has committed GBP 5.8 billion to its International Climate Finance (ICF) from 2016 through to 2021. In 2019, it announced a doubling of its investments to help developing countries to combat climate change in the period 2021-2026 to GBP 11.6 billion. The UK channels a substantial share through dedicated multilateral funds, including the CIFs and the GCF. Together with Germany, Denmark and the European Commission (EC), the UK also contributes to the NAMA Facility that supports nationally appropriate mitigation actions (NAMAs) in developing countries and emerging economies that want to implement ambitious mitigation measures. Germany, the UK and Denmark also support the Global Climate Partnership Fund (GCPF), managed by the Bundesministerium für Umwelt, Naturschutz, Nukleare Sicherheit und Verbraucherschutz (BMUV, German federal ministry for the environment, nature conservation, nuclear safety and consumer protection) and Kreditanstalt für

Wiederaufbau (KfW, German development bank), that focuses on renewable energy and energy efficiency through public-private partnership. Germany and the UK also support the REDD+ Early Movers Programme (REM). Germany is also the main contributor to the new Global Shield against Climate Risk (Global Shield) initiative with Canada, France, the UK, Denmark, Luxembourg and other developed countries also pledging support for around EUR 350 million to provide financial protection and risk insurance for loss and damage in climate vulnerable countries (BMZ, 2024). Norway's International Climate and Forest Initiative (NICFI) has pledged USD 350 million each year since 2008 through bilateral partnerships, multilateral channels and civil society. Sizeable pledges have been made for REDD+ activities in countries such as Brazil, Indonesia, Tanzania, and Guyana.

Joint bilateral cooperation has also made way for a number of Just Energy Transition Partnerships (JETPs). These country platforms see a number of advanced economies come together with a finance offer for the rapid and equitable decarbonisation in a middle-income country (though they remain largely undefined and highly country-specific (Hadley et al., 2022)). The first JETP was announced at COP26 in 2021 in South Africa, promising USD 8.5 billion in programmatic support, while at COP27 a JETP was launched in Indonesia, with USD 20 billion earmarked to support its transition to clean electricity. Additionally, the Vietnam JETP was announced in December 2022 with initial funding of USD 15.5 billion for the period 2023-2028. In June 2023, a JETP with Senegal for initially EUR 2.5 billion over 3-5 years was announced. The Philippines is still engaged in discussions for a JETP to support its transition to clean energy, while India is no longer pursuing such a partnership framework; notably each JETP has differing international partners. In early March 2025, the US government under the Trump administration announced that it would withdraw its support from the JETPs for South Africa, Vietnam and Indonesia, where it part of the respective International Partners Group (Chime, 2025).

Regional, national and country-collaborative climate change funds and channels

Several developing countries and country groups have established regional and national channels and funds with a variety of forms and functions, resourced through international finance and/or domestic budget allocations and the domestic private sector. The Indonesian Climate Change Trust Fund was one of the first of these institutions to be established. Brazil's Amazon Fund, administered by the Banco Nacional de Desenvolvimento Econômico e Social (BNDES, Brazilian national development bank), is the largest national climate fund, with a commitment of USD 1.93 billion from Norway, Germany, Switzerland, Denmark, United Kingdom, the European Commission, Japan and the United States. The operation of the fund and delivery of the commitments, which stalled under Brazil's former President Bolsonaro, has been revived under the Brazilian President Lula da Silva. There are also national climate change funds in Bangladesh, Benin, Cambodia, Ethiopia, Guyana, the Maldives, Mali, Mexico,

the Philippines, Rwanda and South Africa. Additional countries have proposed national climate funds in their climate change strategies and action plans. In many cases the UNDP acted as the initial administrator of national funds, increasing trust by contributors that good fiduciary standards will be met, but many countries are now passing these tasks on to national institutions. Data on capitalisation of national climate change funds, however, is not consistently available.

National climate change funds attracted early interest, largely because they were established with independent governance structures that met high levels of transparency and inclusiveness and could channel finance quickly to projects suited to national circumstances that were aligned with national priorities. Working through coordinated national systems could also improve transaction efficiency. In practice, however, the impact of national trust funds on strengthening national ownership and coordination remains to be seen, and the sums of finance that these funds have raised are often modest. At the same time, many developing countries are beginning to incorporate climate risk into their national fiscal frameworks and are monitoring climate-related expenditure.

Regional cooperation and coalitions of particularly vulnerable states are also generating climate finance flows. The Caribbean Catastrophic Risk Insurance Facility (CCRIF) was established in 2007 through support of the World Bank and other development partners but is now also funded by premiums from developing countries. A 23 member-country risk pool, the CCRIF offers parametric insurance. Similarly, the African Risk Capacity (ARC) offers index insurance against drought as a specialised agency of the African Union (AU). These parametric insurance models are and have been replicated in other regions.

Other forms of funds and financing vehicles are emerging. The Climate Vulnerable Forum (CVF) and Vulnerable 20 Group of the Ministers of Finance of the CVF - a South-South collaboration platform created in 2009 - created a CVF and V20 Joint Multi Donor Fund. The fund is supported by public and philanthropic contributions and was established in 2020 as a voluntary financial and implementation tool focused on increasing South-South climate cooperation among the 58 members of the CVF and V20. The fund is also linked to the activities of the Global Shield initiative to address loss and damage jointly announced by the Group of Seven (G7) and V20 at COP27. While at COP28, Brazil announced the creation of a multilateral investment fund for global tropical forest conservation called the Tropical Forest Finance Facility. Such a fund would invest contributions from sovereign wealth funds, philanthropic foundations, and investors, providing financing to tropical forested nations annually should they keep or gain forest cover, while eventually returning capital to lenders (Mongabay, 2024).

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Endnotes

- 1. The SCF adopted the following operational definition of climate finance, as stated in the sixth biennial assessment report in paragraph 12 (c), page 5 (UNFCCC, 2024a): "Climate finance aims at reducing emissions and enhancing sinks of greenhouse gases, aims at reducing vulnerability, increasing adaptive capacity, and mainstreaming and increasing resilience of human and ecological systems to negative climate impacts, and includes financing for actions identified in a country's nationally determined contribution, adaptation communication, national adaptation plan, long-term low-emission development strategy or other national plan for implementing and achieving the goals of the Paris Agreement and the objective of the Convention."
- 2. These numbers vary from those in the sixth Biennial Assessment. This is due to retrospective updating in CFU as a result of improved data coverage, project changes, other changes verified by fund managers over time and method differences, such as the addition of readiness projects.
- 3. www.climatefundsupdate.org
- 4. Note the committee is an oversight mechanism rather than a fund.
- 5. This figure includes the USD 2.2 billion investment program for Accelerating Coal Transition (ACT). The ACT with South Africa, India, Indonesia, the Dominican Republic, North Macedonia and the Philippines selected to be the first beneficiaries, is supported by financial pledges from the United States, United Kingdom, Germany, Canada, and Denmark.

The Climate Finance Fundamentals are based on Climate Funds Update data and up to 2021 also available in French and Spanish at www.climatefundsupdate.org

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