



The New Collective Quantified Goal on climate finance: Options for reflecting the role of different sources, actors, and qualitative considerations

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Abstract

At the UNFCCC COP21 in 2015, Parties decided that a New Collective Quantified Goal (NCQG) on climate finance shall be set prior to 2025, from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries. The ad-hoc work programme on the NCQG commenced at the beginning of 2022 and will conclude in 2024. In this context, the present paper puts forward key findings that can help inform the final months of international discussions relating to the NCQG. First, the paper provides a stocktake of available evidence highlighting that climate action in developing countries requires significant levels of financing that can be met from a wide, and complementary, range of existing and potential new sources. Second, the paper considers how the NCQG could capture various individual elements, grouped in three clusters: international public finance, private finance, and domestic efforts. Without pre-empting the future structure of the NCQG, the discussion in this paper illustrates how to potentially reflect both the importance of international public finance as well as the need to scale up private finance, while also recognising the magnitude and effectiveness of such finance depends on domestic contexts and actions by all Parties. Third, the paper explores issues relating to tracking and assessing progress towards the future goal. These indicate that while certain elements can be tracked in monetary terms, others would require a different type of quantified indicators or qualitative information. These considerations also highlight that although data and information stemming from the Paris Agreement's Enhanced Transparency Framework will be central, further sources will be needed for such progress assessments to be as comprehensive and policy relevant as possible.

JEL Classifications: F35, F63, F64, Q01, Q54, Q56

Keywords: UNFCCC, climate change, Paris Agreement, Climate finance, New collective quantified goal

Résumé

Lors de la COP21 en 2015, les États parties à la CCNUCC ont décidé qu'un Nouvel Objectif Collectif Quantifié (NOCQ) en matière de financement de la lutte contre les changements climatiques serait fixé avant 2025, à partir d'un seuil de 100 milliards de dollars par an, en tenant compte des besoins et des priorités des pays en développement. Le programme de travail ad hoc sur le NOCQ a commencé début 2022 et se terminera en 2024. Dans ce contexte, ce document présente des conclusions qui peuvent contribuer à éclairer les derniers mois des discussions internationales relatives au NOCQ. Tout d'abord, sur la base des estimations disponibles, le document souligne que l'action climatique dans les pays en développement nécessite des niveaux importants de financement total qui peuvent être couverts par un large éventail de sources existantes et potentielles jouant des rôles complémentaires. Deuxièmement, le document envisage comment le NOCQ pourrait prendre en compte divers éléments individuels, regroupés en trois catégories : les financements publics internationaux, les financements privés, et les efforts nationaux. Sans préjuger de la structure future de l'objectif, cette approche illustre comment potentiellement refléter la centralité des financements publics internationaux et la nécessité d'augmenter à grande échelle les financements privés, tout en reconnaissant que l'ampleur et l'efficacité de ces financements dépendent également des contextes nationaux et des actions menées par tous les États. Troisièmement, le document explore les questions relatives à la manière de suivre et d'évaluer les progrès accomplis dans la réalisation de l'objectif futur. Il en ressort que si les éléments essentiels peuvent être suivis en termes monétaires, d'autres nécessiteraient différents types d'indicateurs quantifiés ou d'informations qualitatives. Ces considérations soulignent également que, même si les données et les informations issues du Cadre de Transparence Renforcé de l'Accord de Paris seront centrales, d'autres sources seront nécessaires pour que l'évaluation des progrès soit aussi complète et pertinente à l'élaboration des politiques publiques que possible.

Classification JEL: F35, F63, F64, Q01, Q54, Q56

Mots clés: CCNUCC, Changement climatique, Accord de Paris, Financement climatique, Nouvel objectif collectif quantifié

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List of acronyms

AFOLU	Agriculture, Forestry and Other Land Use
BTR	Biennial Transparency Report
CIVs	Collective investment vehicles
CPI	Climate Policy Institute
CRDC	Climate Resilient Debt Clauses
DAC	Development Assistance Committee
DFI	Development Finance Institution
DSF	Debt Sustainability Framework
ECG	Export Credit Group
ESG	Environmental, Social and Governance
ETF	Enhanced Transparency Framework
EU	European Union
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gases
GPP	Green Public Procurement
GST	Global Stocktake
GSSS	Green, Social, Sustainability and Sustainability-linked
IFC	International Financial Corporation
IMF	International Monetary Fund
IRENA	International Renewable Energy Agency
IPCC	Intergovernmental Panel on Climate Change

JETP	Just Energy Transition Partnership
LDCs	Least Developed Countries
LDCF	Least Developed Countries Fund
MDB	Multilateral Development Bank
NAP	National Adaptation Plans
NCQG	New Collective Quantified Goal
NDC	Nationally Determined Contributions
NZE	Net Zero Emissions
ODA	Official Development Assistance
OOF	Other Official Flows
SCF	Standing Committee on Finance
SCCF	Special Climate Change Fund
SIDS	Small Island Developing States
SLBs	Sustainability Linked Bonds
SNP	System of National Accounts
SSC	South-South co-operation
TED	Technical Expert Dialogue
TPS	Tradeable Performance Standards
TOSSD	Total Official Support for Sustainable Development

Executive Summary

At the 21st Conference of Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, Parties decided to set a New Collective Quantified Goal (NCQG) on climate finance, from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries. The NCQG is to be decided upon by the end of 2024. Discussions that began in 2022 are ongoing, addressing critical aspects of the NCQG, including its potential quantum, scope, and structure.

The context in which the NCQG is being developed has changed considerably since the USD 100 billion goal was set in 2009. On the one hand, climate-related initiatives in both the public and private finance sectors have significantly expanded, alongside an overall increase in global climate efforts. On the other hand, climate impacts and vulnerabilities to such impacts have increased across geographies, along with economic pressures, such as growing debt burdens in many developing countries. This evolving context makes the process of establishing a new goal that is both ambitious and achievable even more complex.

To ensure that the NCQG takes into account the needs and priorities of developing countries, it is important to understand financing needs for climate action and existing sources of financing. Identifying financing needs for climate action is not straightforward, and there remain many challenges and uncertainties with current aggregate-level estimates due to a diversity in methodologies used and data limitations. Notwithstanding these challenges, existing estimates and projections suggest that by 2030, average annual climate finance needs in developing countries could range between USD 550 to 2 500 billion.

The strategic combination of different financial sources is imperative for scaling up climate finance in developing countries and ensuring its efficient and effective utilisation. Public climate finance is pivotal for activities with high social value but limited direct financial returns, such as adaptation and capacity building, as well as to de-risk projects and mobilise private finance. Private finance from a wide range of actors plays a crucial role, particularly for sectors and projects that can deliver revenue streams. Different financial instruments (grants, debt, equity, guarantees and insurances) and blending mechanisms serve distinct and complementary purposes. From a general perspective, grants can support capacity building and project demonstration, loans can finance large infrastructure, equity can contribute to financing stability, and guarantees and insurance can cover or reduce various types of risks.

Despite increasing financing needs to achieve the Paris Agreement's goals, tracked global investments supporting climate action averaged only USD 1 265 billion during 2021-2022, out of which developing countries represent less than 20%. Such estimates have significant data gaps, particularly in domestic public finance, private investments in sectors such as agriculture, and for adaptation in general. Available evidence indicates that overall volumes of investments going to least developed and low-income countries remain modest in both absolute and relative terms, largely due to difficulties in accessing both public and private finance, and to issues relating to the cost of capital. Notably, while the private sector represents a large share of climate finance in high-income and some middle-income countries, it is less prevalent in financing climate action in most developing countries, and particularly in least-developed countries. This highlights the critical role of continued international support towards building local capacities and supporting domestic policies that create conducive environments for private sector investments towards low-greenhouse gas and climate resilient solutions.

Building on these considerations and context, this paper sets out potential options for how the roles of different actors, finance sources, and policy incentives could be reflected in the NCQG. To do so, the paper identifies possible elements for consideration organised in three thematic clusters as well as an introductory cross-cutting “preamble”:

- **The preamble** sets the broad context, in which the NCQG operates. Potential elements can include an acknowledgement of global financial needs for climate action and articulate the role of the NCQG within this broad framework. The preamble could further underscore the necessity of making all financial flows consistent with the Paris Agreement's goals, including by tackling regulatory barriers and aligning public incentives and policies, to ensure the NCQG's effectiveness.
- **Cluster 1 - International support for climate action** captures elements relating to the critical role of international public and non-commercial finance in supporting climate-related activities that offer limited financial returns, thereby contributing to increasing developing countries' capacities to access and absorb climate finance, as well as to scaling up private finance.
- **Cluster 2 – Private climate finance** captures elements relating to targets and incentives for Parties providing support and multilateral institutions to mobilise private finance through their provision of public climate finance, as well as elements relating to the broader scaling up of private finance that can result from the combination of a wider range of international and domestic public interventions.
- **Cluster 3 – Domestic efforts by all Parties** captures elements relating to domestic public interventions that can directly finance climate action and mobilise private finance, or that help to create policy, regulatory, and fiscal environments that incentivise investment for climate action.

Within each cluster, this paper sets out potential options for reflecting specific elements within a NCQG decision text. These options are summarised in Table 1. As ongoing deliberations have not yet converged on many of these elements, the paper aims to present a balanced view of the advantages and disadvantages of options without prejudging the outcome of ongoing negotiations.

This paper also sets out potential headline indicators for monitoring progress of potential elements within the three clusters. These include quantitative monetary indicators (public finance, mobilised private finance), as well as non-monetary quantitative and qualitative metrics (e.g., domestic policies implementation by all Parties). Tracking these diverse indicators presents data availability and transparency challenges, particularly for private finance beyond that mobilised by international public finance, as well as for the qualitative aspects of domestic efforts and policy impacts.

Finally, without pre-empting the future structure and scope of the goal, the paper briefly discusses what data sources could be used to monitor progress towards the goal. As a core data source, the Paris Agreement's Enhanced Transparency Framework (ETF) provides relevant information for clusters 1 and 2. However, additional sources would be needed for a comprehensive overview across the proposed clusters and elements. Such sources could include, for example, the OECD Development Assistance Committee (DAC) database for further transparency on bilateral and multilateral climate finance (cluster 1) as well as mobilised private climate finance (cluster 2); the Total Official Support for Sustainable Development (TOSSD) for similar data from a wider set of providers and data on domestic expenditures contributing to climate action (cluster 3); national statistics relating to expenditures and investments as well as official documentations relating to domestic policies (cluster 3); a range of non-official and commercial data sources for tracking climate-related private investments more broadly (cluster 2). This multi-source approach acknowledges the complexity of fully capturing the scope of climate finance and the likely need for a range of complementary indicators and metrics to assess progress towards the NCQG.

Based on the analysis in this paper, some guiding principles that could provide useful direction for ongoing discussions include:

- First, clearly outline the roles and responsibilities of various public actors. The role of Parties contributing to the NCQG could be reflected through differentiated levels of responsibilities for developed countries, non-traditional provider Parties and other Parties based on their capacities. It is also important to specifically recognise the important role of multilateral public finance providers, including Multilateral Development Banks (MDBs) and climate funds. This delineation in the roles and responsibilities of different public actors is crucial for operational effectiveness, building trust, and ensuring a broad and inclusive approach to the NCQG.
- Second, address the critical importance of scaling up private finance to bridge the climate financing gap, as well as the role of both public finance providers and public policy makers in this regard. The Paris Agreement and its ETF recognise that private finance can be mobilised as a result from a range of public interventions, including public finance and public policy interventions. In practice, the mobilisation of private finance by public finance interventions can be tracked, attributed to individual interventions, and reported at activity level. On the other hand, estimating the effect of other public interventions, notably public policies, in scaling up private finance, typically implies more aggregate-level indicators without attribution to individual interventions or actors. Hence, without prejudicing the language used in the context of ongoing negotiations, the NCQG could distinguish between private finance that is mobilised by public finance interventions on the one hand and, on the other hand reflect the combined role of the full mix of international and domestic public interventions in “catalysing” private finance more broadly.
- Third, go beyond mere monetary benchmarks. Relying solely on monetary targets would fall short of incentivising the transformations needed to meet the NCQG's aims of contributing to the goals set out in Article 2 of the Paris Agreement. There is a need for a holistic approach that not only captures financial contributions, but also fosters enabling environments for sustained climate action, reflects qualitative considerations such as the issue of effectiveness of finance, and addresses key issues faced by developing countries such as access to finance and debt burden. Notably, the NCQG process offers an opportunity to establish incentives for all Parties to undertake domestic actions towards regulatory and fiscal frameworks that generate additional resources for low greenhouse gas emissions and climate-resilient development.

Table 1. Overview of possible options for reflecting different elements in the NCQG

Clusters	Potential elements	Issues	Possible options
Cluster 1 – International support for climate action	Bilateral public finance	Reflecting the role of different Parties contributing to the NCQG	Using a two-tier approach that sets a commitment for developed countries to contribute to the NCQG and a slightly less stringent expectation on a separate category of non-traditional provider Parties.
			Setting a commitment for a broader pool of provider Parties, including developed countries.
			Setting a commitment for a set of provider Parties based on meeting specific criteria to contribute to the NCQG.
			Encouraging voluntary contributions from “other Parties” as part of the NCQG’s global effort.
			Setting an aspirational or quantitative target for voluntary contributions from “other Parties” as part of the NCQG’s global effort.
	Multilateral public finance	Reflecting the role of MDBs and multilateral climate funds	Setting a specific target for public climate finance provided via multilateral channels.
			Explicitly recalling and recognising the important role of MDBs and multilateral climate funds in the provision of support for developing countries.
	Non-commercial finance contributions from non-Party stakeholders	Reflecting the role of non-Party stakeholders	Encouraging relevant actors (e.g., philanthropies) to provide financial support.
			Encouraging Parties to collaborate with non-Party stakeholders to enable their contribution towards the NCQG.
	Support for capacity building and technology transfer by Parties providing support and, potentially, non-Party stakeholders	Providing incentives for capacity-building and technology transfer support	Recognising the role of capacity building and technology transfer to support developing countries achieving the goals of the Paris Agreement.
			Incorporating guidance on capacity building and technology transfer in the context of specific challenges or barriers faced by developed countries.
	Qualitative considerations that can help further strengthen the provision of public finance	Importance of different climate themes	Encouraging Parties contributing to the NCQG to dynamically reflect both the sustained importance of mitigation and growing importance of adaptation and/or loss and damage in their provision of support in the context of the NCQG. Setting quantitative sub-goals for one or more thematic areas (e.g., mitigation, adaptation, loss and damage)
		Access to finance	Requesting Parties contributing to the NCQG to provide clear documentation and guidance on the access modalities of their bilateral climate finance.
			Calling on international providers, including MDBs and multilateral climate funds, to facilitate enhanced and simplified access to financial resources.
			Establishing goals for financial resources to be allocated to groups of developing countries that face significant barriers to access.
		Sustainability of debt burden	Explicitly acknowledging and recognising that many developing countries face debt sustainability challenges, and that non-debt instruments are critical to supporting developing countries
			Encouraging Parties and other relevant stakeholders to make progress on efforts related to debt sustainability in parallel processes
			Encouraging or requesting Parties providing support to explore or scale up the use of instruments that incentivise

Clusters	Potential elements	Issues	Possible options
			climate action while improving debt sustainability (e.g., through Climate Resilient Debt Clauses (CRDC) or debt-for-climate swaps)
			Including quantitative goals on the provision of non-debt finance for non-commercially viable activities in specific developing countries groupings, e.g., SIDS, LDCs, or developing countries with high debt sustainability risk
		Enhancing effectiveness of support provided	Recalling the ETF's request for developing countries to report information on the impacts and estimated results of climate finance received
			Encouraging Parties contributing to the NCQG to support developing countries in their efforts of tracking the impacts and effects of financial support received, for example through dedicated capacity-building activities.
		Gender responsiveness and inclusivity	Encouraging Parties contributing to the NCQG, MDBs, and multilateral climate funds to enhance their efforts in reporting information on the results and impacts of their climate finance projects.
			Encouraging Parties and other relevant stakeholders to take into account considerations related to vulnerable groups in their climate finance efforts. Encouraging Parties to strengthen monitoring, evaluation, and reporting mechanisms that systematically collect and analyse social and gender-disaggregated data on climate finance allocation and outcomes.
Cluster 2 – Private finance mobilised and catalysed for climate action*	Private climate finance mobilised by public finance interventions	Setting a quantified goal private finance mobilisation	Setting a quantified, absolute goal for Parties contributing to the NCQG to mobilise private climate finance, including through multilateral institutions.
		Setting incentives for more effective private finance mobilisation by international providers	Calling on Parties and international providers to enhance the effectiveness of their mobilisation strategies.
			Calling on the MDBs to strengthen their mobilisation potential while avoiding unintended consequences on wider development priorities
			Setting the basis for strengthening co-ordination and collaboration between different actors.
	Private finance catalysed by other public interventions	Setting incentives for the increased catalysation of private resources	Recalling the importance of regular and granular reporting on the mobilisation of private climate finance
			Recognising the importance of scaling up private finance to achieve the goals of the Paris Agreement, including through policy support, capacity building, and other approaches. Setting an aspirational goal for Parties contributing to the NCQG to strengthen capacity building and co-operation efforts with developing countries on regulatory environments and policies conducive to scaling up private investments for climate action.
Cluster 3 – Domestic efforts by all Parties	Incentives for public climate budgeting and spending	Integrating climate change considerations into the planning, allocation, and spending of public finances	Encouraging Parties receiving support to evaluate the financial implications of implementing their national climate plans e.g., Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) as part of their budget planning
			Encouraging Parties to adopt a long-term perspective in their budget planning processes to effectively integrate climate considerations into their national development agendas
	Incentives for strengthened enabling environments for climate-related investments	Addressing the role of public policy frameworks to support and enhance the mobilisation and catalysation of private	Encouraging the adoption of regulatory measures to boost private sector investments
			Incentivising climate-related financial transparency and risk disclosure Promoting the use of fiscal instruments to incentivise climate investment and disincentivise high-GHG and non-resilient activities

Clusters	Potential elements	Issues	Possible options
		finance	Recognising the potential impact of certain domestic policies on the ability of other countries to attract climate finance.
	Incentives for the use of innovative instruments to raise further resources domestically.	Exploring the use of innovative instruments in raising further resources	Encouraging the use of innovative financial instruments to raise resources domestically for climate action and sustainable development.

Note: * Under the Paris Agreement, public sector efforts are defined as “mobilising” private finance. Accordingly, private climate finance can be reported as mobilised by financial instruments (e.g., grants, guarantees, insurance) or by policy interventions, capacity-building, technology development and transfer, technical assistance, and other means. Empirical evidence and practical experience in tracking and assessing climate-related financial flows and their drivers highlight the importance of distinguishing between the specific role of public finance instruments in mobilising private finance, and the combined catalytic effect of a broader range of public interventions (including capacity building, public policies).

1. Introduction

At the 21st Conference of Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, Parties decided that the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), “shall set a new collective quantified goal from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries”, prior to 2025 (decision 1/CP.21, paragraph 53) (UNFCCC, 2016^[1]). The New Collective Quantified Goal (NCQG) on climate finance is set to be decided upon by the end of 2024, at CMA6. The process to establish the NCQG has been underway since 2022 and has thus far involved, among other things, submissions from Party and non-Party stakeholders, as well as a series of technical expert dialogues (TEDs) that focused on various aspects of the NCQG such as its quantum, possible quantitative elements, timeframe, and sources of finance. In 2024, the TEDs are being conducted back-to-back with three meetings under the ad hoc work programme through which Parties will develop the substantive framework for a NCQG draft negotiating text.

The NCQG deliberations, as decided by CMA1, are to be taken forward “in accordance with Article 9, paragraph 3” of the Paris Agreement (decision 14/CMA.1), which states that, “as part of a global effort, developed countries should continue to take the lead in mobilising climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties” (UNFCCC, 2016^[1]). Moreover, the NCQG deliberations are to consider the goal’s aim to “strengthen the global response to the threat of climate change within the framework of sustainable development and efforts to eradicate poverty, including by aligning finance flows with a trajectory towards low greenhouse gas emissions and climate-resilient development”, as articulated in Article 2 paragraph 1(c) of the Paris Agreement (decision 14/CMA.1) (UNFCCC, 2019^[2]).

It is important that the NCQG is designed to reflect the evolving global economic and financial landscape, recognising the significant changes that have occurred since 2009 when the USD 100 billion goal was initially set. These include rapid advancements in green technologies, an expansion in the green finance sector, the improved socio-economic status of many countries, and overall heightened global awareness of climate change issues as reflected in stronger climate commitments from governments, corporations, and civil society (CPI, 2023^[3]; OECD, 2023^[4]; Calvin et al., 2023^[5]). However, it is equally important to consider the growing adverse impacts of climate change, as well as of economic crises and instabilities over the past decade, which have influenced the availability and direction of financial flows, and exacerbated the vulnerability of some countries (OECD, 2020^[6]; IMF, 2024^[7]; Alayza, Laxton and Neunuebel, 2023^[8]). Capturing this broader evolving landscape is important to ensure the NCQG is fit-for-purpose for strengthening the global response to the threat of climate change.

Discussions and deliberations on the NCQG are underway in the lead-up to CMA6. The decision adopted at CMA5 requested the co-chairs of the ad hoc work programme (AHWP) on the NCQG to prepare, a substantive framework for a draft negotiating text capturing progress made for consideration at COP29 no later than four weeks prior to CMA6. As of May 2024, and as highlighted in many Parties’ submissions and interventions made at the TEDs in 2023, many interrelated critical questions remain open, including on the quantum of the NCQG and the different sources of finance to be captured by the NCQG (UNFCCC, 2024^[9]).

This paper explores the practical aspects of integrating different sources of finance, reflecting the role of different actors and qualitative considerations in the NCQG. The options discussed in this paper are non-exhaustive, and stem from TED discussions and Party submissions made in the NCQG deliberation process. For each option, the paper sets out a specific example of how it could be incorporated in the NCQG decision text, assessing both its advantages and disadvantages, and the practicality and feasibility of implementing different options, without prejudging the outcome of the ongoing process.

The remainder of the document is structured as follows:

- Chapter 2 takes stock of available estimates and evidence on climate change-related investments including financing needs of developing countries, and the role of different actors and instruments in financing climate action in this context, including information on underlying methodological approaches and data coverage.
- Chapter 3 sets out potential options for the NCQG to reflect different individual elements grouped within three clusters of international public finance, private finance, and domestic efforts.
- Building on Chapters 2 and 3, Chapter 4 considers potential metrics, indicators and qualitative elements that could help assess future progress towards different potential elements that may be captured by the NCQG.

2. Snapshot of finance needs and sources for climate action in developing countries

Having a good understanding of finance needs and of current sources of finance for climate is crucial to inform discussions relating to the NCQG. Against this backdrop, this chapter takes stock of evidence on climate-related finance needs (section 2.1) as well as on current financing sources and their roles (section 2.2), with a focus on developing countries.¹ The analysis focuses on available quantified evidence relating to climate change mitigation and adaptation. As such, it does not cover developing countries' needs relating to non-financial aspects (which are, however addressed in the clusters and elements proposed in Chapter 3.), nor loss and damage (except where explicitly covered by available estimates presented in this chapter).

2.1. Investment and financing needs for climate action

Reaching the Paris Agreement temperature goal (Article 2.1a) relies on sharp greenhouse gas (GHG) reductions in many sectors. In the energy sector, for example, the International Energy Agency (IEA) scenarios highlight the need to ramp up renewables, increase electrification and improve energy efficiency while reducing the use of fossil fuels (including an end to unabated coal-fired power plants) and cutting down methane emissions from remaining fossil fuel-based operations (IEA, 2023_[10]). On the other hand, increasing the ability to adapt to the adverse impacts of climate change and fostering climate resilience (Article 2.1b), while challenging to assess (Jeudy-Hugo, Errendal and Kotani, 2022_[11]), requires adaptation and resilience considerations to be embedded in all economic and human activities.

Against this backdrop, a range of actors have developed estimates of global and regional investment and financing needs for climate action. Investment needs, in an economic sense, relates to needed purchases of (or capital expenditure for) physical or intangible assets (Kreibiehl et al., 2022_[12]). Financing, on the other hand, refers to the process of securing the money needed to cover an investment or project cost. Needs for climate action can also be non-monetary, such as capacity needs, skill needs or societal needs. These fall outside the scope of this chapter.

Estimates of investment and financing needs for climate action typically have different scopes, follow different methodological approaches and assumptions, and rely on different data and estimation techniques (Table 2.1). As there is no agreed methodology to estimate needs, organisations and governments have developed their own methodologies. Highlighting differences and commonalities in scope and approaches is needed to contextualise and summarise available aggregate-level estimates.

¹ The paper acknowledges both that the scope of countries captured by such evidence may vary, and that “developed” and “developing” countries are not as such defined under the Paris Agreement.

Table 2.1. Overview of differences and commonalities in methodological approaches of selected providers of climate investment and financing needs estimates

Reference	Geography	Sector	Timeframe	Type of expenditure	Approach	Scenario
Mitigation and adaptation						
Clima Partners	Developing countries, excl. China	Energy generation, Transport, Industry and mining, Waste management, Agriculture and fisheries, Forests and land use, Infrastructure and built environment, Health, Water, Oceans and coastal zones, Disaster risk management	2020-2030	Unclear	Analysis of submitted NDCs & NAPs + wider literature review	Unclear
CPI	Global	All	2022-2030	Unclear	Analysis of submitted NDCs & NAPs + wider literature review	Unclear
IHLEG 2030	Developing countries, excl. China	Energy transformations, loss and damage, adaptation and resilience, natural capital, methane from fossil fuels and waste	2020-2030	Unclear	Analysis of submitted NDCs & NAPs + wider literature review	Unclear
UNFCCC SCF	Global	Energy, waste & sanitation, land use and forestry, transport, agriculture, water, disaster prevention & preparedness, coastal zone management, ecosystem, infrastructure, health	2020-2030	Unclear	Analysis of submitted national documents* + wider literature review	Unclear
Mitigation only						
ETC	Global	Energy, Transport, Industry, Buildings	2021-2050	Capital Investment, Concessional/grant payments	Cost model + wider literature review	<1.5°C (50%) IEA NZE by 2050
IEA	Global	Energy transformations	2026-2050	Capital Investment	Cost model	<1.5°C (50%) IEA NZE by 2050
IRENA	Global	Energy transformations	2023-2050	Unclear	Cost model	1.5°C (50%) IRENA 1.5
McKinsey	Global	Energy, Transport, Industry, Buildings, Agriculture, Forestry and Other Land Use (AFOLU)	2021- 2050	Capital expenditure physical assets investment	Cost model	1.4°C (50%) NGFS NZE 2050
Adaptation only						
UNEP	Developing countries	Agriculture, water, infrastructure and settlement, forests and ecosystems, climate-induced disaster, human health, energy, coastal, tourism, other	2021-2030	Unclear	Cost model + analysis of submitted NDCs & NAPs	2.7°C (50%) RCP4.5 – SSP2

Note 1: This table only includes aggregate analyses, some of which could include country-specific estimates as part of the aggregates. This is a high-level comparison, acknowledging that the different dimensions presented here are not directly comparable across references.

* National documents include: Adaptation Communications (ACs), Biennial Update Reports (BURs), Long-Term Low-Emission Development Strategies (LT-LEDs), National Adaptation Plans (NAPs), National Adaptation Programmes of Action (NAPAs), National Communications (NCs), Nationally Determined Contributions (NDCs), Technology Action Plans (TAPs), Technology Needs Assessments (TNAs).

Source: Authors, based on (Climate Capital Partners, 2022^[13]; CPI, 2023^[14]; ETC, 2023^[15]; IEA/IFC, 2023^[16]; Songwe, Stern and Bhattacharya, 2022^[17]; McKinsey & Company, 2022^[18]; UNFCCC SCF, 2021^[19]; UNEP, 2023^[20]; IRENA, 2023^[21]).

The methodologies highlighted in Table 2.1 cover estimates including developing countries, either as the main scope of the analysis or as a subset estimate of their global analysis. Many more estimates exist, providing either global estimates (e.g., (Bertram et al., 2021^[22]; McCollum et al., 2018^[23])), regional estimates (for e.g., Africa (CPI, 2022^[24])), or national estimates (UNFCCC SCF, 2021^[19]). Such estimates

cover different sectoral scopes, which are often classified in different ways making them difficult to compare. Estimates of mitigation-related investment needs often focus on energy. For example, the IEA and IRENA capture investments associated with energy system transformations, as a sizeable subset of investment needs for mitigation (IEA/IFC, 2023^[16]; IRENA, 2023^[21]). Estimates of adaptation investment needs are more limited in number, whether at a global, regional, or national level (UNEP, 2023^[20]).

Estimates of aggregate investment needs are based on different methodological approaches and data sources (Table 2.1). Some global needs assessments are calculated using bottom-up models of changes in economic activities and their costs (referred to here as cost models). Others combine a wide literature review of disaggregate sectoral estimations and national assessments (as published as part of NDCs or NAPs for example). One challenge with such analysis is that national assessments follow highly different approaches and scopes, thus strongly limiting the potential for meaningful aggregation. Aggregate analyses of needs may also rely on different definitions (Zhang and Pan, 2016^[25]; UNEP, 2023^[20]). Some needs estimates can cover non-financial needs, such as institutional capacity building (Kreibiehl et al., 2022^[12]; Osama et al., 2021^[26]). There are also important gaps in national needs assessments, as not all countries publish them, nor do those who do publish them cover both mitigation and adaptation across all relevant sectors (UNFCCC SCF, 2021^[19]).

Other differences in methodologies and assumptions can further drive heterogeneity in needs estimates (Table 2.1). The choice of a given climate change mitigation scenario can impact the results of any climate-related financial analysis (Noels et al., 2023^[27]). A more ambitious scenario, in terms of near-term emissions reductions and long-term temperature goal for example, would require higher mitigation finance needs, but may reduce adaptation finance needs (IEA/IFC, 2023^[16]). Different scenarios can follow very different mitigation and adaptation strategies, and underlying assumptions, further driving uncertainty in a needs analysis. Moreover, for adaptation-related needs assessments, there is no clear objective or quantified goal, neither at global or national levels. Hence, different estimates may accept different risk levels and residual damages (UNEP, 2023^[20]). Further, differentiating between finance needs for climate change adaptation and sustainable development can be challenging, given their highly interconnected nature.

Despite methodological and data challenges in estimating finance needs for climate action, such estimates can help motivate ambition and inform strategies to scale up finance for climate action significantly. One study, bringing together different references, estimates global climate mitigation and adaptation finance needs between 5.9 and 12 trillion USD annually by 2030 (CPI, 2023^[3]).

Estimates of climate-related investments and financing needs in developing countries specifically may be available as a subset of global investment estimates for climate action or sustainable development, or stem from dedicated analyses. Due to differences in coverage, methodological approaches and assumptions, and data challenges, such estimates vary widely and are highly uncertain. As shown in Figure 2.1, estimates of investment needs for mitigation and adaption in developing countries by 2030 available from individual studies vary widely depending on, as discussed above, the underlying methodological approach, as well as the scope considered. Notably, different estimates will have different geographic scopes. In this context, it is also important to note that the Paris Agreement does not define as such countries considered as developed and developing.

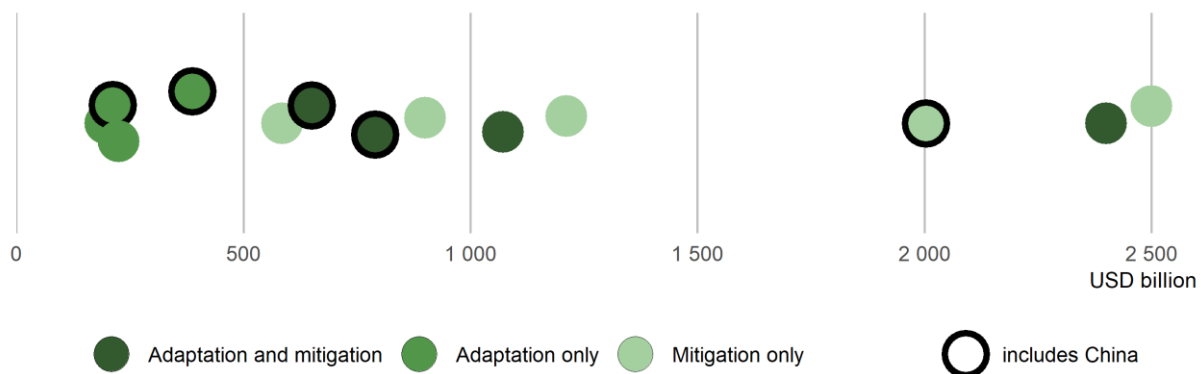
Available estimates of mitigation-related investment needs for developing countries range from USD 550 to 2500 billion annually by 2030 (Figure 2.1). Investment needs across sectors and regions are large and highly heterogeneous.

- For instance, estimated needs for climate change mitigation-related investments in the energy sector indicate USD 2.2 to 2.8 trillion per year by the early 2030s (IEA/IFC, 2023^[16]). This total includes around one-third low-emissions generation (mainly to renewables), another third for improvements in efficiency in end-use sectors (notably for efficient cooling and electric mobility),

just under one-quarter for electricity grids and storage and around 8% for low-emission fuels as well as and carbon capture, utilisation, and storage.

- Looking at individual countries, research finds annual investment needs between USD 30 to 50 billion in electricity supply by 2030 to align with the Just Energy Transition Partnership's (JETP) targets (Fearnough et al., 2024^[28]). Ghana's investment needs to implement mitigation-related actions in its NDC are over USD 1 billion annually between 2020 and 2030 (UNDP, 2021^[29]; UNFCCC, 2021^[30]).

Figure 2.1. Sample estimates and uncertainty ranges of annual climate finance needs in developing countries by 2030



Note: The data does not currently allow to ensure geographical consistency across estimates. The inclusion or exclusion of certain large countries can have noticeable effects on the estimates. Notably, many estimates presented here exclude China.

Source: Authors, based on (Climate Capital Partners, 2022^[13]; CPI, 2023^[14]; ETC, 2023^[15]; IEA/IFC, 2023^[16]; Songwe, Stern and Bhattacharya, 2022^[17]; McKinsey & Company, 2022^[18]; UNFCCC SCF, 2021^[19]; UNEP, 2023^[20]).

Available estimates of adaptation-related investment needs for developing countries range from USD 200 to 400 billion annually by 2030 (Figure 2.1), with uncertainty ranges going from USD 101 to 1 000 billion (UNEP, 2023^[20]).

- Absolute and relative sectoral needs in adaptation finance differ across regions (UNEP, 2023^[20]). Developing countries in East Asia and the Pacific need more finance for infrastructure and settlements. Developing countries in Latin America & the Caribbean, the Middle East and North Africa have their highest needs in agriculture.
- As an example of country-level estimates, adaptation investment needs in India are over USD 5.5 billion annually (estimate for six largest states between 2021-2030) (CPI, 2024^[31]).

Although loss and damage investment and financing needs are beyond the scope of this paper, these are included in a limited number of the estimates presented in Figure 2.1. In particular, Songwe, Stern and Bhattacharya (2022^[17]) find that coping with loss and damage from climate-related disasters, could require annual investments between USD 200 and 400 billion by 2030.

While aggregate-level estimates of financing needs for climate change mitigation and adaptation differ, these needs appear significant in volumes. Importantly, the scale and type of such needs vary significantly across geographies and sectors. As discussed in the next section, different sources, instruments, and actors may be suitable to meet different adaptation- and mitigation-related needs across geographies and sectors.

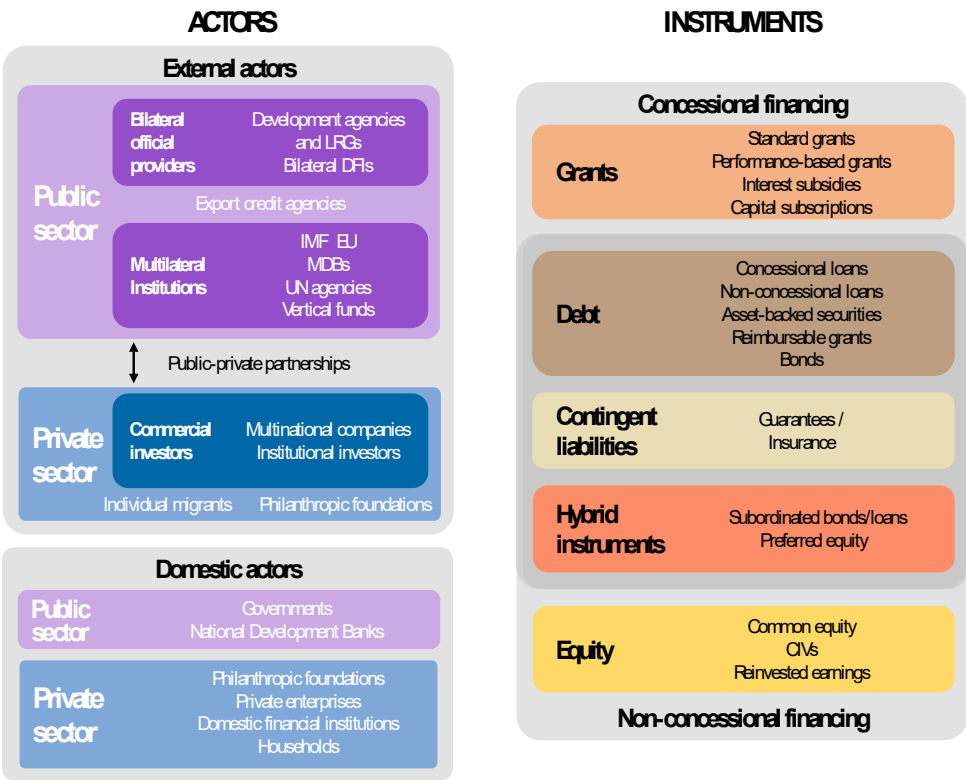
2.2. Sources of finance for climate action

To provide context for elements and options discussed in Chapter 3. , this section starts with an overview of the various types, roles, and limitations of different sources of finance (section 2.2.1). Section 2.2.2 then presents a selection of available estimates of sources of finance for climate change mitigation and adaptation at aggregate level and in different developing country contexts. This analysis acknowledges the presence of significant data gaps and recognises that the reality of sources, actors, and intermediaries involved in mobilising, providing, and directing finance for climate action is considerably more complex and varied across different sectors and countries. Moreover, it highlights that issues concerning the quality and impacts of such finance are more nuanced and cannot be fully captured by the aggregate-level evidence presented in this section.

2.2.1. Typology, roles and limitations of different actors and instruments

The number and diversity of financial actors who are called upon by the international community to mobilise resources for sustainable development, inclusive of climate action, have grown, as exemplified by the 2015 Addis Ababa Action Agenda (United Nations, 2015^[32]). These actors include “taxpayers, private investors, diaspora communities, international providers and philanthropic actors, among others, all of whom bring their own rationales, roles, resources, instruments, incentives and intermediary objectives and whose distinct contributions to sustainable development derive from their respective and diverse comparative advantages” (OECD, 2018^[33]). Figure 2.2 provides an overview of this range of actors and instruments, highlighting a wide variety of possibilities to combine different resources, which is both an opportunity and a complicating factor.

Figure 2.2. Overview of sustainable development finance actors and instruments



Note: Examples for the types of actors and instruments are not exhaustive.
Source: Adapted from (OECD, 2018^[33]).

Insights into the roles and limitations of different financing sources can further contextualise the challenges and opportunities to enhance the amount and mix of financing sources and instruments for climate action in different geographies, sectors, and themes. While further work is needed to better assess the effectiveness and impacts of financing sources, different sources and instruments have clear strengths and limitations.

Generally, public climate finance can fill financing gaps for climate-related activities that may not yet be market competitive or have no to low expected financial returns. In doing so, public climate finance can help mobilise and crowd in private financing sources for climate action by reducing risks.

- **Domestic public finance** is crucial for the provision of public goods and services, addressing economic disparities, and contributing to macroeconomic stability (UN DESA FSDO, 2024^[34]). In the context of climate action, government revenues are most efficiently used for activities providing such outcomes, which are often characterised by high social value but relatively limited or no direct financial returns. Such activities include adaptation action, capacity-building programs, and climate risk mitigation and response. For example, much adaptation occurs in routine development investments by governments that are typically public goods and would be undersupplied if left to the market (Allan et al., 2019^[35]). However, domestic public finance capacities are insufficient in many developing countries to transition to net-zero emissions and adapt to climate change impacts, especially with large, expected constraints on government revenues (OECD, 2022^[36]). Among other things, there are substantial differences in countries' abilities and capacities to increase tax revenues (OECD, 2018^[33]).
- **International public finance**, from bilateral and multilateral sources, has a crucial role to directly finance climate action, build capacity, and mobilise private finance through mechanisms that de-risk projects (further discussed below in relation to financial instruments). It can address activities in not-yet-mature sectors, notably in countries such as Least Developed Countries (LDCs), where private sector engagement is frequently restricted due to high-risk profiles and underdeveloped markets. In such contexts, public and highly concessional finance become indispensable (OECD, 2022^[37]). Among other things, concessional finance leverages the limited pools of public finance to attract much larger private finance, through a range of financing and de-risking instruments such as loans with interest rates below the conventional market rates, grants, guarantees, subordinated debt, and, to some extent, equity investments (G20 SFWG, 2023^[38]).
- Seeing the scale of transformations and resources needed, there is a consensus that most climate finance will need to be in the form of **private finance**, from both domestic and international actors, including commercial banks, institutional investors (e.g., sovereign wealth funds, pension funds, insurance companies), private investors, and private and multinational corporations. Domestic private investment is an important source of capital formation (OECD, 2018^[33]). In this context, the existence and relative depth of local capital markets is important for development outcomes and for drawing in international private finance. Private finance can also bring non-financial benefits, such as transmitting new technologies, providing access to international markets, and creating business linkages (OECD, 2018^[33]). In more mature sectors, including clean energy, the rapidly improving commercial picture means the scope and potential for private investment has grown (OECD, 2023^[39]). However, there are significant hurdles in raising private finance in developing countries, for example, for adaptation and in LDCs. Philanthropic capital, although limited in scale, can partly fill gaps in areas with higher risks, low or no expected returns, and can pioneer innovative financing solutions (OECD, 2018^[33]).

Climate finance by different public and private actors can be delivered through different financing instruments. Broadly speaking these are grants, debt, and equity, with different uses and limitations (Schoenmaker and Volz, 2022^[40]; EIB, 2023^[41]; CPI, 2023^[14]; Mustapha, 2022^[42]). A mix of new innovative financing instruments and other de-risking mechanisms can also be used. Moreover, blended finance mixes concessional and non-concessional financing instruments from public and private actors, to unlock

larger amounts of private finance and improve the risk-return profile of climate projects in developing countries (NGFS, 2023^[43]).

- **Grants** are generally provided through dedicated climate funds, or bilateral or multilateral providers (G20 SFWG, 2023^[38]). As they do not place any financial burden on the recipients, they typically support capacity building, feasibility studies, demonstration projects, technical assistance, and activities with low or no direct financial returns but high social returns (OECD, 2022^[37]). Grants are more often used to support countries with less favourable economic and socio-political conditions and limited absorptive capacity of debt financing.
- There are different types of **debt financing** (e.g., loans, bonds, credit lines, unconventional debt instruments) that serve different roles and have different limitations in financing climate action in developing countries. As debt needs to be repaid, typically with accrued interest, it can create positive incentives for borrowers to exercise fiscal discipline but can also place a fiscal burden on the borrower (OECD, 2018^[33]). Low-cost project debt or concessional debt² by public actors can reduce risks associated with financing projects for climate action in developing countries making them more attractive to private actors. Public climate finance loans can be extended to governments, or used to fund mature or close-to-mature technologies as well as large infrastructure projects with a future revenue stream, which are predominant for mitigation finance as well as in middle-income countries (OECD, 2022^[37]). Green, Social, Sustainability and Sustainability-linked (GSSS) Bonds can provide valuable additional resources to financing climate action (OECD, 2023^[44]). In countries with significant but manageable debt levels and high climate vulnerability, debt-for-climate swaps³ are for example used to increase liquidity and finance domestic climate projects (CPI, 2023^[14]).
- **Equity financing** provides greater stabilisation to recipients of finance compared to debt financing because risks are shared between investors and recipients (OECD, 2018^[33]). Direct investments in companies can also bring capacity building opportunities. Direct investments in projects through equity can be used to finance the more expensive portion of the capital stack, whilst providing a strong signal to investors on international support for projects, thereby helping to attract more private finance (OECD, 2023^[39]). Equity funds created by multilateral development banks (MDBs), and bilateral institutions also signal the due diligence done by these actors on projects, thereby reducing information asymmetries for private investors and creating an enabling environment for the latter (G20 SFWG, 2023^[38]). However, it also comes with higher risks for MDBs and bilateral institutions, which can hamper their ability to provide stable and predictable funding to developing countries (OECD, 2018^[33]).
- While **guarantees and insurances** do not result in a financial flow unless called upon, they are critical to de-risk projects in general and to mobilise financial resources in particular. Guarantees can mobilise private finance through managing a range of risks and uncertainties, including to address the challenge of high-risk perception of climate-related investments in developing countries, tackle high local currency borrowing rates, mitigate foreign exchange risk, strengthen local debt capital markets, provide political risk cover, providing political risk cover, and leverage the role of local financial institutions (CPI, 2024^[45]). Climate-related export credits⁴ provided by developed countries' official export credit agencies can support and facilitate international trade

² Low-cost project debt or concessional debt is debt financing at below market rates. Debt finance can be concessional based on price (including interest rates and/or fees), tenor, subordination, repayment profile, and/or security.

³ Debt-for-climate swaps are financial arrangements where a country's debt is reduced in exchange for spending or policy commitments by the debtor country, at fiscal cost no higher than the debt reduction (Chamon et al., 2022^[138]).

⁴ An export credit is an insurance, guarantee or financing arrangement which allows a foreign buyer/borrower of exported goods and/or services to defer payment over a period of time (OECD, 2008^[144]).

transactions related to low-carbon activities such as renewable energy generation (OECD, 2022^[46]).

In conclusion, different sources of finance play different roles in financing climate change mitigation and adaptation. Being able to rely on and mobilise a mix of different sources and instruments will be crucial in both scaling up climate finance and in ensuring efficient and effective allocation of resources.

2.2.2. Illustrative overview of existing sources of finance for climate action

When considering available estimates of climate finance, it is important to have in mind that coverage is partial, as also highlighted by the UNFCCC's Biennial Assessment and Overview of Climate Finance Flows (UNFCCC, 2022^[47]). While climate finance is relatively well tracked for international public sources and specific sub-sectors (notably clean energy, see Box 2.2), significant data gaps remain for domestic public finance and private sources, as well as for sectors that involve smaller-scale activities (e.g., agriculture) rather than large infrastructure. Such gaps are typically even more acute for climate change adaptation than for climate change mitigation, owing to greater challenges in identifying and tracking adaptation- and resilience-relevant activities in investment and financing, e.g. see (CPI, 2022^[48]).

Keeping data limitations in mind, most recent estimates indicate that global finance flows supporting climate action reached USD 1 265 billion on average in 2021-2022 (CPI, 2023^[3]). Although not directly comparable in terms of scope, current finance flows for climate action typically represent only a small, one-digit percentage of all real-economy investments (proxied by gross fixed capital formation⁵) (Kreibiehl et al., 2022^[12]), which highlights strong potential for redirecting investments towards climate action.

Within the USD 1 265 billion of tracked global climate mitigation and adaptation finance in 2021-2022, developing countries (excluding China) represented USD 179 billion on average, with USD 30 billion in least developed countries (CPI, 2023^[14]). Finance volumes going to least developed and low-income countries remain modest in absolute and relative terms, in great part due to difficulties in accessing finance, and to issues relating to the cost of capital (IEA, 2024^[49]). Other estimates for clean energy investments (electrification, grid infrastructure and efficiency) in developing countries (including China) were estimated at USD 770 billion in 2022, with China accounting for two-thirds and the top three countries (China, India and Brazil) for over three-quarters (IEA/IFC, 2023^[16]). In the context of tracking progress towards the USD 100 billion goal, less than 10% of total climate finance provided and mobilised by developed countries was for low-income countries (OECD, 2023^[50]).

Available estimates of global climate finance indicate that public and private actors contribute almost equally to global climate finance flows (USD 640 and 625 billion respectively in 2021-2022). Development finance institutions (multilateral, bilateral and national) contributed the largest share of public climate finance (57%), while commercial financial institutions provided the largest share of private climate finance (38%), followed by corporations (31%) and households (29%). Institutional investors currently play a negligible role (CPI, 2023^[3]). Looking at philanthropic organisations, of the estimated total USD 750 billion they provided globally in 2020, only an estimated USD 6-10 billion (only 2%) was specifically designated for efforts aimed at addressing climate change (Desanlis et al., 2022^[51]). In 2022, forty of the largest foundations active in developing countries provided USD 2.4 billion of climate-related finance, representing 19% of the foundations' total development-related commitments (USD 12.6 billion) (OECD, 2024^[52]). Finally, in the specific context of the USD 100 billion goal, international public finance from developed countries has been the main contributing source. In 2021, bilateral and multilateral public finance (attributable to developed countries) together represented 82% of the USD 89.6 billion provided and

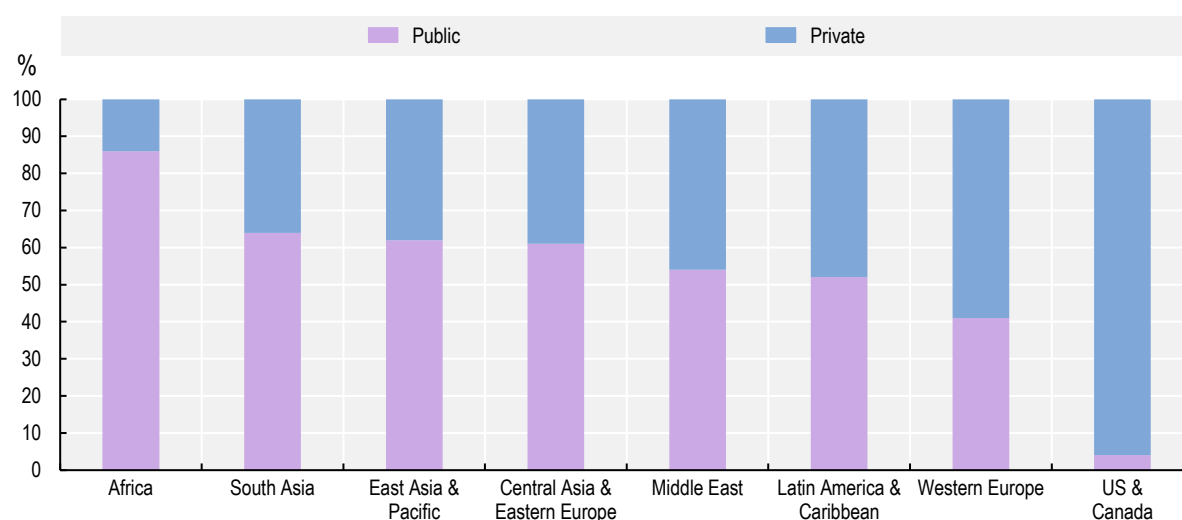
⁵ Gross fixed capital formation includes both investments in new assets, as well as "major improvements, additions or extensions to fixed assets, both machinery and structures, which improve their performance, increase their capacity or prolong their expected working lives" (UN, 2008^[145]).

mobilised by developed countries (OECD, 2023^[50]). The remaining 14% being made up by mobilised private finance and export credits.

Notwithstanding data limitations, in particular for domestic government expenditure and private sector investment need to be kept in mind, available aggregate estimates indicate that the share of public and private sources in total climate finance varies significantly across geographies (Figure 2.3). At the two extremes, while private actors account for nearly all climate finance flows in the US and Canada, they only represent 14% of climate finance flows on the African continent. Most of this private finance was channelled domestically (CPI, 2023^[3]). Despite hiding significant differences between individual countries and sectors, these estimates highlight that mobilising and shifting private finance for climate action requires both an enabling environment conducive to investment in general (OECD, 2015^[53]), as well as specific enabling conditions for low-carbon and climate-resilient investment in developing countries. The latter involves designing and implementing ambitious and stable climate policies, including but not limited to pricing GHG emissions. It also implies ensuring coherent and consistent signals across different policy areas, which traditionally do not take climate-related objectives into account, such as investment policy and promotion, competition, financial regulation, disclosure requirements, fiscal policy, innovation, and trade (OECD, 2015^[54]).

In practice, private finance typically flows as a result of a combination of climate-related public finance and policy interventions, in the context of broader policy environments and enabling conditions (Haščič et al., 2015^[55]). While many developing countries remain faced with significant capacity challenges in putting in place policy and enabling environments conducive to private finance for climate action, there are also clear examples of successful and effective actions in this area (see examples in Box 2.1).

Figure 2.3. Overview of current main sources for global climate finance by actors and region



Note: Average shares for 2019-2020. Data gaps are most pronounced for domestic government expenditure, investments from private sector, and South-South flows.

Source: (CPI, 2022^[24]).

Box 2.1. Selected examples of domestic policy actions towards policy and enabling conditions more conducive to private finance for climate action

Examples of policy actions to improve domestic enabling conditions for climate investments:

- As part of a series of reforms between 2014 and 2016, **Egypt** introduced incentives aimed at encouraging investment in and the operation of renewable power projects. These incentives were designed to facilitate the sale of electricity generated from these projects through long-term power purchase agreements. One notable incentive introduced was the "feed-in subsidy," which aimed to stabilise electricity prices by providing financial support to renewable energy producers. This subsidy ensured that producers received a guaranteed price for the electricity they generated, thereby promoting the expansion of renewable energy generation in Egypt (IMF, 2023^[56]).
- **Mexico's** Energy Transition Law, approved in 2015, establishes a legal framework for the efficient use of energy and gradual increase of clean energy in electricity production. Notably, it includes various policy instruments to achieve emission standards. For instance, it mandates the acquisition of Clean Energy Certificates, which, together with the Intelligent Electrical Networks Programme, are aimed at modernizing the National Network of Transmission and General Distribution Networks. Additionally, the law establishes an Excellence in Energy Efficiency program, which is a voluntary certification and recognition process for products, equipment, and buildings demonstrating sustainable and efficient energy usage (Averchenkova, 2019^[57]).
- **China** is developing what is set to be the world's largest CO₂ emissions trading system. Unlike cap and trade or a carbon tax, China's system relies on a tradable performance standard (TPS). This TPS works by tying compliance to how much CO₂ a company emits compared to how much it produces. Essentially, companies are given emissions allowances based on a set emissions-output ratio. This unique feature of the TPS influences firms' production decisions and their emissions abatement efforts, impacting the system's cost-effectiveness and distributional impacts.

Examples of financial sector policies and actions of relevance to mobilising finance for climate action:

- Several stock exchanges in developing countries have mandated that companies disclose information on environmental, social, and governance (ESG) issues as a condition for listing. Examples include the **Philippines** Stock Exchange, the Hanoi Stock Exchange, and the **Nigerian** Stock Exchange (IFC, 2022^[58]).
- When developing environmental impact reporting guidelines, regulators often make linkages to internationally accepted reporting frameworks like the GRI, SASB, TCFD, or Integrated Reporting. For instance, the Philippines Securities and Exchange Commission's Sustainability Reporting Guidelines for Publicly Listed Companies, provides a brief comparison of the various reporting frameworks they refer to, so reporting entities can identify the most appropriate one to disclose their material issues. (IFC, 2022^[58]).
- The Sustainable Finance Policy for Banks and Financial Institutions by the **Bangladesh** Bank stands out as a notable example of ambitious regulation (Humayun Kabir, n.d.^[59]). It defines sustainable finance, distinguishes between sustainable finance and green taxonomy, establishes targets, ratings, rewards, and delineates inclusion/exclusion lists for sustainable products (IFC, 2022^[58]).
- The King IV Corporate Governance Code of **South Africa** has laid important groundwork for the making ESG considerations an explicit responsibility for boards of directors, resulting in a growing set of guidance documents. Most notably, the King IV Guidance Paper on the Responsibilities of Governing Bodies in Responding to Climate Change outlines a set of actionable principles for boards in addressing climate change (Institute of Directors South Africa, 2021^[60]).

In terms of financial instruments, current climate finance is mainly provided through debt instruments (61%) (CPI, 2023^[3]). Grants only represent in 5% of climate finance flows globally, and equity 34%. In the context of climate finance provided by developed countries' public bilateral and multilateral actors, loans represented over two-thirds, grants represent around a quarter, while equity investments are marginal (OECD, 2023^[50]). In 2020, multilateral development banks committed less than 2% of their climate finance in the form of equity, which may partially explain that they only attract 1.2 times the amount of private equity relative to commitments of their own resources (IMF, 2022^[61]). Further, guarantees have proven to be effective mechanisms to mobilise private finance in developing countries in the context of the USD 100 billion climate finance goal. For example, guarantees provided by public finance providers mobilised about a fifth of total private finance for climate action (OECD, 2022^[37]).

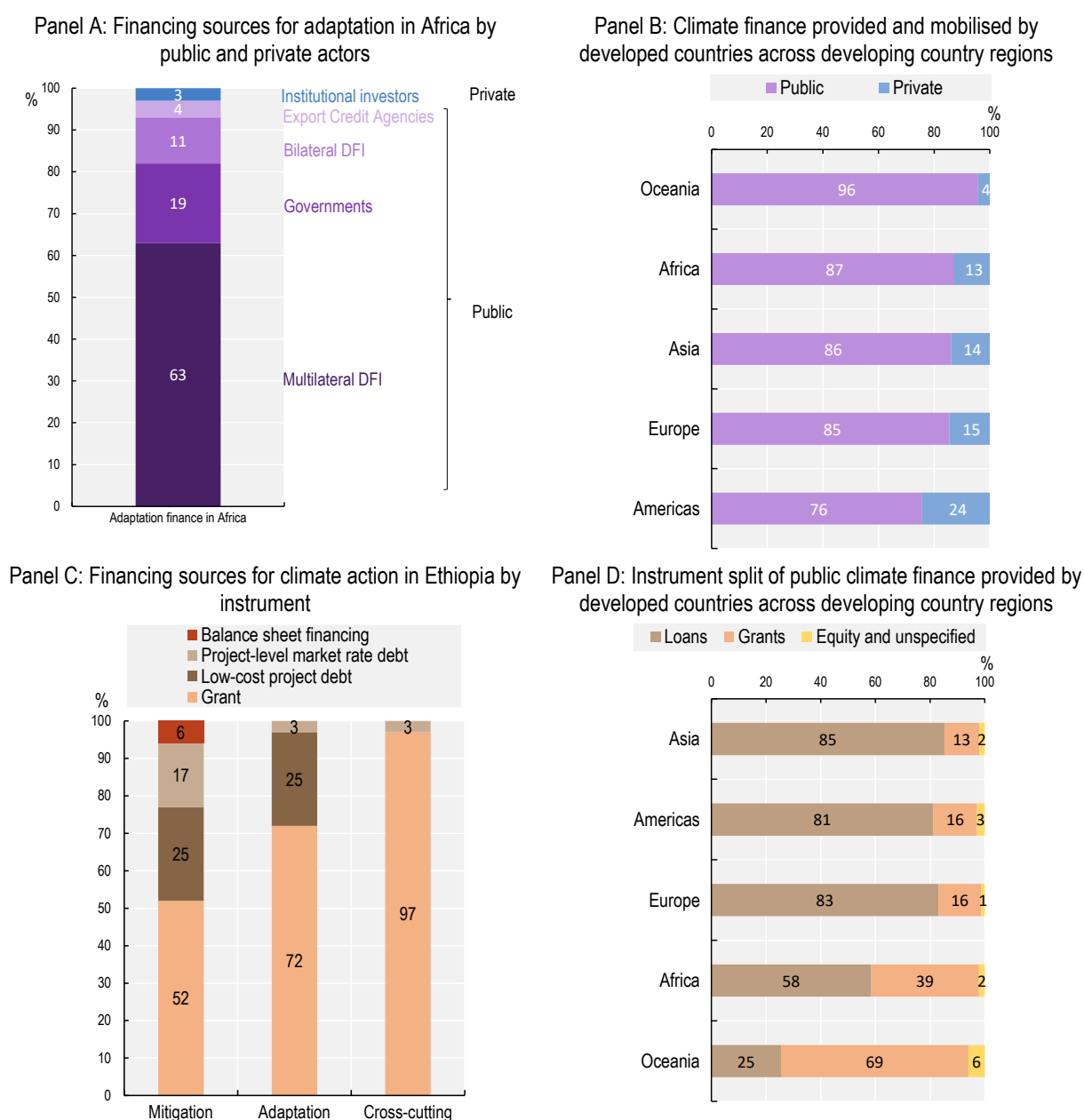
As much of climate finance, especially in developing countries, has been financed through debt (often at market rates), there are growing concerns about countries' sovereign debt burden.⁶ Developing countries are facing increasing debt levels that may become unsustainable (Chamon et al., 2023^[62]), restricting investments in development and climate resilience. Many developing countries face difficulties in allocating available resources to climate initiatives when a significant portion of their budget is earmarked for debt servicing (Chabert, Cerisola and Hakura, 2022^[63]). Especially in low-income countries debt has accumulated rapidly over the past decade. In 2022, net debt inflows into developing countries turned negative as debt repayments reached new highs and new debt commitments plummeted (World Bank, 2023^[64]). About 60% of LDCs and other low-income countries are assessed as being at high risk of debt distress – a twofold increase from 2015 levels. This situation is exacerbated by insufficient financial inflows, limited access to concessional resources, and a shift towards more expensive private creditors. The resulting reduced fiscal space undermines climate-resilient development efforts (Robertson et al., 2023^[65]).

Behind such aggregate figures, the main financing sources and instruments vary depending on the geographical and thematic scope considered, as illustrated in Figure 2.4. While the share represented by public finance is significant in all cases, the degree of reliance on domestic or international public sources as well as the ability to attract private finance differ depending on the geography considered as well as, on average, between mitigation- and adaptation-related sectors and activities. These differences are logically also reflected in the corresponding financial instrument split, with equity financing typically representing a smaller share than debt financing.

- Currently, climate change adaptation in African countries is almost exclusively financed through public sources (Figure 2.4 Panel A), as is the case for climate finance in Africa in general. Within that, multilateral development financial institutions take the largest share.
- Financing for climate action in Latin America is split almost equally by public and private actors (Figure 2.2). Taking the example of climate finance for land use in Brazil, over 63% comes from private actors, with international players financing a small share (CPI, 2023^[66]).
- In the context of the USD 100 billion goal, the share of climate finance mobilised for developing countries in the Americas is almost twice as large as the share in developing countries in Africa (Figure 2.4 Panel B).
- Climate action in Ethiopia is currently mainly financed through grants (Figure 2.4 Panel C), reaching much higher levels than the aggregate global trend. Shares of climate financing through grants are also high in some other African countries, such as Ghana (CPI, 2023^[67]), while they are much lower in others, such as Nigeria (CPI, 2022^[68]) and Kenya (CPI, 2021^[69]).
- Most financing for clean energy in Indonesia is provided through debt (CPI, 2023^[70]), consistent with overall trends discussed above.
- In the context of the USD 100 billion goal, developing countries in Asia and the Americas receive public climate finance mostly through loans, while the share of grants is higher in African and Oceanian developing countries (Figure 2.4 Panel D).

⁶ Sovereign debt burden refers to the substantial accumulation of external debt by a government, resulting from loans and financial obligations incurred to fund the national public budget and meet developmental needs.

Figure 2.4. Illustrative examples of estimated financing sources for climate change mitigation and adaptation in different geographies



Note: Data for all panels are an average for the years 2020-2021. Data gaps are most pronounced for domestic government expenditure, investments from private sector, and South-South flows. Tracking methodologies and reporting may differ in what is considered climate finance. In Panels A and C, climate finance is broadly defined as finance aimed at reducing emissions, and enhancing sinks of greenhouse gases, and at reducing vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impacts. This figure tracks primary capital flows directed toward low-carbon and climate-resilient development interventions with direct or indirect GHG mitigation and adaptation benefits. Further details on methodological and data considerations for Panels B and D are in (OECD, 2022^[37]). Source: Adapted from (CPI, 2023^[14]; OECD, 2022^[46]; OECD, 2022^[37]; CPI, 2022^[71]).

Putting together the investment needs and roles of different financing instruments and actors as done in this chapter allowed to highlight the need to scale up financing from a range of different sources in order to respond to the significant yet varied climate-related investment needs in developing countries. Effectively addressing the climate finance gap necessitates a strategic matching of climate finance needs

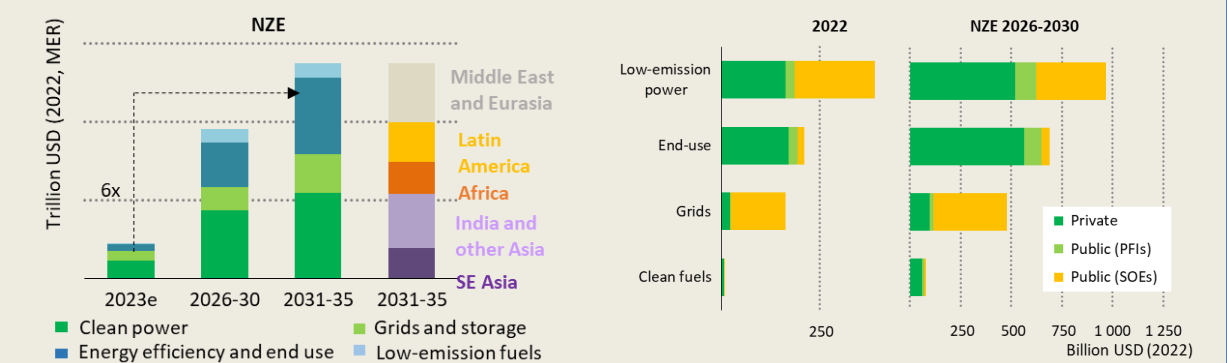
with the comparative advantages and combined roles of different actors and sources of finance. Such matching requires clear information on needs and priorities of developing countries, as well as an understanding of the varying motivations driving different sources of finance, such as propensity to risk or prioritisation of development objectives. In addition to increasing the volumes of climate finance, it is key to ensure efficiency and impact in utilising climate finance resources. Capacity building will be essential for accurately costing needs and navigating diverse finance sources.

Box 2.2. Zoom in on financing needs and sources for clean energy in developing countries

Global clean energy investment has risen by 40% since 2020, reaching USD 1 800 billion in 2023, but almost all the recent growth has been in developed countries and in China. Developing countries (excluding China) account for just 15% of the total, as capital flows to clean energy projects in many developing countries remaining stubbornly low. Significant technology costs reductions mask some of the growth in capacity and some EMDE such as India, Brazil and parts of Southeast Asia, which have reported strong growth rates particularly for utility scale solar PV and wind. Overall, however, annual investment in clean energy in developing countries need to rise more than six-fold from USD 270 billion today, to USD 1 600 billion by the early 2030s to meet a 1.5-degree pathway (IEA’s NZE scenario) (IEA, 2024^[49]).

Investments in low-emissions sources of electricity generation together with investments in grids and storage account for half of total clean energy investment needs. Another third is required for investments in electrification and efficiency, with the remainder going to low-emissions fuels, including deployment of carbon capture, utilisation, and storage (CCUS). A small fraction of the total investment spend – less than USD 50 billion per year – would be sufficient to meet universal access for electricity and clean cooking.

Figure 2.5. Clean energy investments in developing countries (excluding China) by sector and region (LHS) and sources of finance (RHS) in the NZE Scenario



Source: (IEA/IFC, 2023^[16]; IEA, 2024^[49]).

Currently, around half of the investments in clean energy projects in developing countries come from public sources, including development finance institutions (DFIs). In contrast, the share of public financing in developed countries is much lower at about 20%. Funding from all sources needs to grow sharply, but many developing countries have limited fiscal space to expand public financing. Meeting sustainable development goals and climate pledges in developing countries will require a much greater effort to scale-up financing from private sources. Public and DFI funding needs to work more effectively to mobilise private capital from both international and domestic sources.

The IEA's cost of capital observatory data shows that the cost of capital for clean energy projects such as solar PV is currently at least twice as high in developing countries than in developed countries, reflecting higher real and perceived risks in developing countries (IEA, 2024^[49]). This elevated cost of capital pushes up financing costs and makes it much more difficult to generate attractive risk-adjusted returns necessary to attract private capital.

Investment on the scale needed to meet the NZE scenario will require all sources of finance. Mobilising private finance at scale will require at least a tripling in international concessional funds to help improve the risk return profile of clean energy projects across the electricity, end-use and low emission fuel sectors. These funds are particularly critical to help mobilise private capital in countries and sectors that do not have adequate access to affordable commercial finance.

In addition to clean energy investments, meeting NZE by 2050 goals will require a 75% reduction in methane emissions from oil and gas operations, one of the cheapest options to reduce GHG emissions anywhere in the economy. Just over USD 75 billion in cumulative spending (USD 12 billion annually) is required to 2030 to achieve these reductions in emissions (IEA, 2023^[72]). Of the total spending, the IEA estimates that about USD 15-20 billion needs particular attention to ensure that adequate sources of finance are available for developing countries.

Source: (IEA, 2023^[72]) (IEA, 2024^[49]), contributed by Cecilia Tam (IEA).

3. Options for reflecting sources, actors, and qualitative elements in the NCQG

The analysis in Chapter 2. highlighted the need to scale up financing from a range of complementary public, private, international, and domestic sources to respond to the significant yet varied climate-related investment needs in developing countries. The role of the NCQG in this context could be twofold: to support developing countries in their pursuit of efforts to address their needs, and to more generally stimulate efforts to scale up investments in climate action to support the goals of the Paris Agreement. To enhance its impact and to reflect the complexity of the global climate financial architecture, the NCQG could also capture further elements, such as capacity-building, technology transfer, and policy frameworks, which can enhance countries' ability to access, attract, and use climate finance more effectively.

Building on evidence relating to financing climate action (Chapter 2.), this chapter explores how different actors, sources of finance, and policy incentives could be included in the NCQG in a way that incentivises an effective and efficient scaling up of finance for climate action in developing countries. To do so, this chapter identifies different elements that are organised in three non-mutually exclusive and interlinked clusters (Figure 3.1). This approach is not intended to propose a structure for the goal⁷, but rather to help facilitate ongoing discussions about how to reflect different possible elements of the NCQG. The proposed clusters are organised as follow:

- Cluster 1 (section 3.2) captures international public support and forms of non-commercial finance from other non-Party stakeholders that provide support for activities with high social benefit and limited financial returns, contribute to increase developing countries' capacities to access and absorb climate finance, as well as help scale up private finance.
- Cluster 2 (section 3.3) captures the role of public finance providers as well as other public interventions in contributing to scaling up private climate finance for climate action. While acknowledging that the Paris Agreement text recognises that private finance can be mobilised by a broad range of public interventions, this cluster puts forward a distinction between private finance mobilised by private finance interventions, and private finance resulting from the combination of a wider range of public interventions, including public policies and capacity-building, which is referred to as "catalysation".
- Cluster 3 (section 3.4) captures domestic efforts from all countries that can either directly finance climate action and mobilise private finance in developing countries, or help create policy, regulatory, and fiscal environments creating conditions that are conducive to investment for climate action.

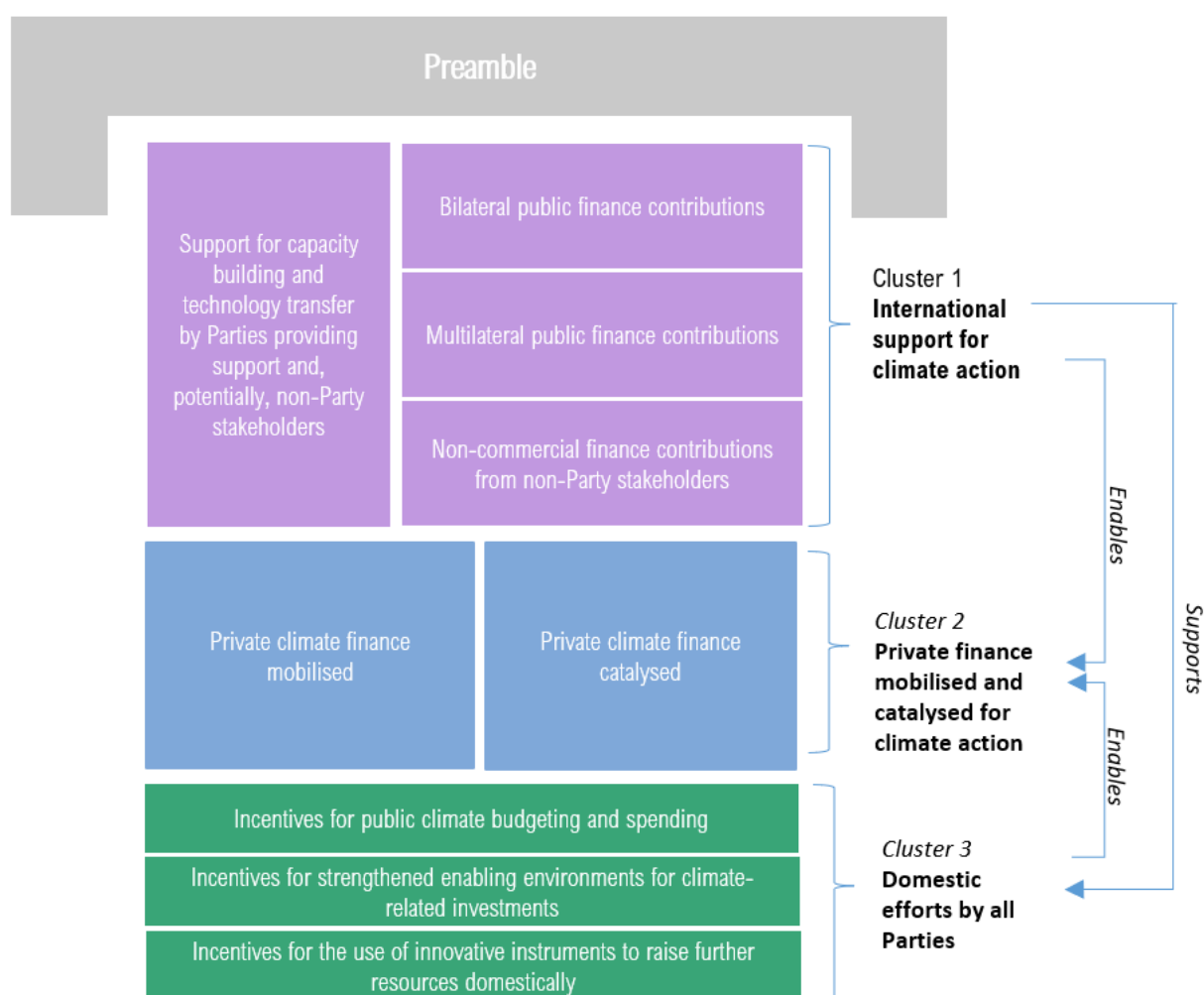
This paper also considers the possibility of including a preamble to set the broader context of integrating a variety of financial actors and sources within the global financial architecture, emphasising the need for harmonised efforts internationally to accelerate the achievement of the goals set in Article 2.1 of the Paris

⁷ As part of ongoing deliberations on the NCQG, Parties have proposed different options for structuring the goal. These include structuring the goal around climate themes, financial actors, and/or sources of finance.

Agreement. This preamble could further underscore the interconnectedness of the NCQG in the global financial system, highlighting the importance of enabling environments to fully realise the potential of climate finance and more broadly make finance consistent with climate mitigation and resilience goals.

This chapter starts with a short reflection on the content of the preamble, before three subsequent sections detail the three clusters respectively. Some issues are relevant across clusters for the final NCQG text to work effectively, such as defining which financial instruments apply to each cluster and identifying the key Parties and actors involved. These issues are discussed separately within each cluster for ease of presentation and understanding.

Figure 3.1. Visualisation of the possible clusters and elements of the NCQG



Note: Building blocks are not to scale; darker shades in clusters 1 and 2 identify blocks that can potentially have more stringent requirements.
Source: Authors.

3.1. Preamble

Incorporating a preamble or introductory paragraphs within the NCQG could help define the context in which the goal operates. In their submissions, some Parties have highlighted the need for the NCQG to reflect such a broader context. However, other Parties have raised concerns that broadening the NCQG's

scope might shift focus away from supporting developing countries (UNFCCC, 2024^[9]). Notwithstanding this diversity of views, a preamble, or introductory paragraphs in the NCQG decision could help clarify the goal's role within the broader financial landscape and highlight its interdependence with global financial trends and dynamics. Doing so would help ensure that the NCQG is not a standalone initiative but a key part of a co-ordinated global financial response to climate change. Some elements for considerations in the preamble could for instance include:⁸

- **Acknowledging the extensive global finance and investment needs for climate action outlined in Chapter 2, and clearly articulating the goal's objectives within this broader context.** The NCQG preamble could include a top-tier, holistic quantified goal for global investment ambition that reflects the magnitude of global and/or developing countries' financial needs in achieving the goals of the Paris Agreement (see section 2.1) (Watson, 2023^[73]). In this context, the preamble could spell out more precisely the role of the NCQG with respect to this broader and global investment ambition, e.g., whether it is to address only a share of these financial needs, or whether the NCQG is intended to act as a catalyst to stimulate the global investment ambition required to achieve the goals of the Paris Agreement. This element could also include an acknowledgement of the dynamic nature of global and/or developing countries' needs and evolving economic capacities.
- **Recognising that achieving the Paris Agreement's goals will ultimately require the alignment of all financial flows from a diverse range of actors and stakeholders beyond the Agreement's signatories.** These include commercial banks, institutional investors (e.g., sovereign wealth funds, pension funds, insurance companies), private investors, and multinational corporations (see section 2.2). Such a recognition could help highlight that continued efforts by all Parties will likely be required beyond the NCQG as well, to engage with relevant stakeholders domestically and internationally towards promoting their gradual transition towards alignment.
- **Explicitly recognising that numerous challenges, if not addressed, will continue to hinder the scaling up and effective use of climate finance, such as regulatory barriers as well as misaligned public incentives and policies.** Addressing some of these challenges may fall beyond the scope of the NCQG. Therefore, the preamble could highlight the importance of identifying and overcoming these obstacles for strengthening the effectiveness of the NCQG. This could involve recommending policy reforms, promoting financial innovation, and supporting capacity-building efforts in all countries to remove impediments and enhance the ability of accessing and utilising climate finance effectively, including by reducing the cost of capital in developing countries (see section 2.2.2). The NCQG preamble could recognise that it is fundamental to undertake such initiatives in parallel to achieving the objectives of the NCQG and cite initiatives already underway that are geared towards this aim. Without tackling such challenges, global financial needs for climate will continue to rise.

3.2. Cluster 1: International support for climate action

This cluster recognises the critical role of international public finance and other forms of non-commercial finance from non-Party stakeholders both to provide support in countries and areas of climate action where market solutions and private investments are less likely to happen, as well as to mobilise and help catalyse private finance (see section 3.3). Importantly, amongst all the sources of finance, public finance is the one

⁸ The following are a non-exhaustive list of examples of elements that could be considered for the preamble. Party submissions and discussions at the TED have highlighted, as further elements, issues relating to e.g., linkages between country NDCs and NAPs, as well as the international financial architecture reform agenda (UNFCCC, 2024^[9]).

that can be controlled, directed, and, to some extent predicted. In this context, this cluster identifies four possible elements:

- Bilateral public finance (section 3.2.1)
- Multilateral public finance (section 3.2.2)
- Non-commercial finance contributions from non-Party stakeholders (section 3.2.3)
- Support for capacity building and technology transfer (section 3.2.4).

Section 3.2.5 identifies qualitative considerations (e.g., how to address the issue of access to finance) that can be integrated in the NCQG in the form of specific sub-goals or provisions that can help further strengthen the effectiveness of this cluster.

3.2.1. Bilateral public finance

Bilateral public finance provides essential support to developing countries for contributing to their efforts towards meeting the goals of the Paris Agreement. This element could be reflected in the NCQG through the establishment of a quantified goal for bilateral public finance contributions, separate from the other possible elements explored in this paper.⁹

A key issue is determining which Parties would contribute to bilateral public finance. For example, the current USD 100 billion goal refers to mobilisation by “developed country Parties”. Yet, in the context of the Paris Agreement, “developed” and “developing” countries are not defined categories. Notwithstanding this, Annex II Parties are generally considered those responsible for delivering the USD 100 billion goal; although in its reports, the OECD also includes Non-Annex II EU members in its list of contributors (OECD, 2023^[50]). However, since the establishment of the Annex II list in 1992, significant political, social, and economic changes have occurred globally (see e.g., (Alayza, 2023^[74])). Many Non-Annex II Parties are now providing support to developing countries, both bilaterally and via their contributions to multilateral institutions (see Section 3.2.2 below), (Colenbrander, Pettinotti and Cao, 2022^[75]). Given these changes, some Parties argue that the NCQG offers an opportunity for expanding the list of countries responsible for supporting developing countries beyond Annex II Parties. Conversely, other Parties hold that NCQG deliberations do not have the mandate to discuss contributors to the goal. Several studies by civil society organisations have examined proposed options for how to expand the base of contributors, considering criteria such as historical emissions or economic capacity (Colenbrander et al., 2023^[76]; Beynon, 2023^[77]; Evans, 2021^[78]).

While there is broad consensus among Parties on the distinctive role that developed countries are expected to play within the context of the NCQG, there are variations in perspectives regarding the specific nature of this role and how it could be articulated within the goal.¹⁰ Notwithstanding these divergent views, the incorporation of an explicit commitment for developed countries would, at a minimum, offer reassurance to developing countries regarding the availability of financial support towards their climate efforts. Simultaneously, such a commitment does not preclude the inclusion of other elements and actors within the NCQG framework, potentially with varying levels of stringency.

⁹ A second option would be that of setting a goal for public finance contributions, including both bilateral and multilateral. This is further explored in section 3.2.2.

¹⁰ Some Parties see the NCQG as being primarily for developed countries to contribute to, as they view the NCQG as a continuation of the USD 100 billion goal. In contrast, other Parties, while reaffirming developed countries' role in providing financial resources to assist developing countries, particularly the most vulnerable, emphasise the idea of the NCQG being part of a “global effort.” They highlight the necessity for a transformative approach to mobilise climate finance, involving a greater variety of actors and reflecting the evolving nature of economic capacities for countries which are now contributing support to developing countries. (UNFCCC, 2024^[9])

Considering the possible different roles that different Parties may play with regards to a commitment related to the provision of international bilateral public finance in the context of the NCQG, there are different, non-mutually exclusive approaches that could be undertaken:

- **Using a two-tier approach that sets a commitment for developed countries to contribute to the NCQG and a slightly less stringent expectation on a separate category of non-traditional provider Parties.** In reflecting this approach, the NCQG text could, for example, read: *“Developed countries [commit to] provide [USD XXX billion] to developing countries. Non-traditional providers, acknowledged as a distinct category within the NCQG, [commit to / seek to / are encouraged to] gradually increase their financial contributions to developing country Parties in recognition of and considering their evolving economic capacity and developmental progress [with the aim of providing USD XX billion by YYYY]”.*
- **Setting a commitment for a broader pool of provider Parties, including developed countries.** In reflecting this approach, the NCQG text could, for example, read: *“Developed countries, major economies and others in a position to do so [commit to] provide [USD XXX billion] for climate action in developing countries.”*
- **Setting a commitment for a set provider Parties based on meeting specific criteria to contribute to the NCQG.** The set of criteria could be varied, including current or historical levels of emissions, and/or economic capacities, noting that insufficiently precise criteria could introduce uncertainty regarding the committing contributors. In reflecting this approach, the NCQG text could, for example, read: *“[High emitters based on past, current and future emissions and from countries with higher economic capacities], including develop country Parties, [commit to] provide [USD XXX billion] for climate action in developing countries.”*

The above exemplified approaches are non-exhaustive. In practice, each approach could be further refined to include other elements and characteristics, e.g., sub-goals or further qualifiers. A fourth approach would involve establishing a clear, shared understanding of “developed country Parties” that encompasses more countries than those presently acknowledged as contributors to the USD 100 billion goal. However, this approach is not explored further in this paper as the creation of a list of “developed country Parties”, similar to the Annex I and Annex II classifications established in 1992, would not be consistent with the Paris Agreement’s flexible approach allowing Parties to self-identify based on their circumstances. Moreover, the term “developed country” holds various implications within the Paris Agreement, entailing more stringent reporting requirements and other obligations. Some countries may be financially positioned to provide support but not be prepared or have the capacity to fulfil the broader set of “developed country” obligations.

In addition to setting a specific commitment for a set of providers as outlined above, it is important for the NCQG to reflect the increasing role that all Parties, can play in supporting developing countries as part of a “global effort”. The NCQG could thus acknowledge and facilitate the contributions of various Parties that are in a position of providing support beyond those that would have a more stringent commitment, as highlighted above. The NCQG could capture the role of all other Parties in this context with language that is less stringent than a commitment. Possible approaches in this context include:

- **Encouraging voluntary contributions from “other Parties” as part of the NCQG’s global effort.** Such a provision would serve to promote a more inclusive and comprehensive approach in scaling up climate finance towards addressing the challenges posed by climate change. For example, the NCQG decision text could read: *“In accordance with Article 9.2 of the Paris Agreement, other Parties are encouraged to contribute to the NCQG’s global effort by providing support to developing countries”.*
- **Setting an aspirational or quantitative goal for voluntary contributions from “other Parties” as part of the NCQG’s global effort.** Doing so would provide a stronger incentive and guidance for the participation of other Parties. For example, the NCQG decision text could read: *“Other*

Parties are encouraged to contribute to the NCQG's global effort by supporting developing countries, with the aim of [inspiring actions that collectively advance the NCQGs climate finance objectives to foster a broad-based commitment to support / achieving the symbolic milestone of USD X billion by YYYY]".

To note that, because under the Paris Agreement's Enhanced Transparency Framework (ETF) only developed country Parties are required to report on financial support provided, tracking contributions from non-developed country Party providers may prove difficult (see Chapter 4.). Moreover, the absence of defined list of developed countries and other possible provider Parties may leave some ambiguity regarding the expected NCQG contributors. In all cases, and to increase clarity and accountability in terms of expectation placed on relevant contributor Parties, the NCQG could potentially include language that invites contributing Parties to formulate specific pledges towards the NCQG. This could create a virtuous cycle dynamic that acknowledges, and thus potentially incentivises, the efforts of ambitious providers.

3.2.2. Multilateral public finance

Multilateral channels – including multilateral development banks and multilateral climate funds – play a key role in supporting climate action globally, including in the context of the existing USD 100b goal. Through their submissions, several Parties have recognised the role of MDBs and climate funds in the NCQG (UNFCCC, 2024^[9]).

The NCQG presents an opportunity to explicitly address multilateral institutions and acknowledge their critical role. This step is crucial because it ensures a more comprehensive and effective framework for climate finance, as well as increased accountability and clearer responsibilities. At the same time, multilateral institutions are not Parties to the Paris Agreement. Therefore, Parties to the Paris Agreement, as shareholders and/or board members would need to play a role in working with these institutions to facilitate their efforts to respond to any relevant NCQG provisions. In contrast to MDBs, a slightly different consideration regards multilateral climate funds such as the Global Environment Facility (GEF) and the Green Climate Fund (GCF). At COP21, Parties agreed that these entities shall serve the Paris Agreement. As such, the NCQG could potentially offer more detailed guidance on their role and contribution towards the goal.

It is noteworthy that some multilateral institutions, most notably MDBs, not only rely on inflows from shareholders, but also raise additional funds from capital markets, thereby augmenting the volume of their financial outflows. The NCQG would ideally clarify whether inflows or outflows, or both perspectives, are to be captured within the goal.¹¹ Outflows offer a more comprehensive approach, as they capture the actual levels of finance provided to developing countries (i.e., a recipient perspective). In its reports on assessing progress towards the USD 100 billion goal, the OECD does not use information on inflows to multilateral institutions reported by developed countries in their Biennial Reports. Rather, it relies on climate finance outflows reported by MDBs to the OECD DAC to capture the multilateral climate finance component (OECD, 2022^[37]). Importantly, if a separate goal for multilateral finance is established in the context of the NCQG, it is important to ensure that inflows to multilateral institutions reported by Parties under the UNFCCC ETF are not double counted with outflows from multilateral channels (see Chapter 4).

Another crucial issue regarding multilateral public climate finance relates to the discussions developed in earlier sections on the contributor base of the NCQG, acknowledging that Parties beyond NCQG

¹¹ Inflows refer to the funds that are received by multilateral institutions from various sources, such as contributions from member countries. Typically, these resources are not earmarked; instead, they are pooled together to then be allocated to different projects and programmes. Because they are un-earmarked, Parties cannot always provide detailed information at the project level. In fact, the Party will have information on the lump sum (e.g., a grant) given to a multilateral institution, but will not have visibility on how that money will be spent. Outflows refer to the distribution of these pooled funds to various projects and initiatives in developing countries.

contributors may be shareholders of some MDBs. For example, in its analyses of progress towards the USD 100 billion goal, the OECD has developed a dedicated methodology that only accounts for that share of outflows from each multilateral institutions that is attributable to developed countries (OECD, 2023^[50]). On that basis, the remaining shares of multilateral outflows, which relate to developing countries' shareholding and contributions to such institutions, are not being counted towards the USD 100 billion goal. Indeed, developing countries are shareholders of MDBs. Although less frequent, some countries beyond UNFCCC Annex II countries are also contributors to multilateral climate funds.

There are different non-mutually exclusive approaches that could be considered to reflect the role of the MDBs and climate funds in the context of the NCQG, including but not limited to:

- **Setting a specific goal for public climate finance provided via multilateral channels.** This goal could take several forms, including an absolute goal or a goal expressed as a share of total public finance. Setting a distinct goal for multilateral climate finance could enhance transparency and accountability relating to the role of multilateral providers in the provision of public support. At the same time, this approach could incentivise fragmented funding approaches, requiring careful coordination and avoiding competition between bilateral and multilateral efforts. For example, the NCQG decision text could read: *"[Parties contributing to the NCQG] [commit to / seek to] achieving USD XXX billion in multilateral climate finance [outflows/inflows]"*.
- **Explicitly recalling and recognising the important role of MDBs and multilateral climate funds in the provision of support for developing countries.** The NCQG could specify that public finance from Parties providing support can be provided through both bilateral and multilateral channels. Ideally, the decision text, potentially in a section related to transparency, would provide more precise guidance on how to account support provided via multilateral channels. In reflecting this approach, the NCQG text could, for example, read: *"Parties recall the fundamental role played by Multilateral Development Banks and multilateral climate funds, notably the operating entities of the financial mechanism, and recognise that a share of financial support will be provided via multilateral channels"*. Related to tracking progress, the text could further specify that *"[The body responsible for tracking progress towards the NCQG] shall clearly identify the share of financial support provided via multilateral institutions that is attributed to [Parties contributing to the NCQG] according to methodologies to be developed by [YYYY]."*

3.2.3. Non-commercial finance from non-Party stakeholders

Some private sector actors can provide financing in the form of grants and concessional loans and thus complement public climate finance (see section 2.2.1). These contributions can help bridge financing gaps and enhance the overall efficacy of climate finance. Notably, the existing and potential role of philanthropies has gathered substantial attention (see section 2.2.2 and e.g., (Bhattacharya et al., 2023^[79])). Because non-Party stakeholders have no reporting obligations under the UNFCCC, effective monitoring of their contributions towards the NCQG in a systematic and comprehensive way may, however, prove difficult. Moreover, many non-Party stakeholders, such as non-governmental organisations (NGOs) active in developing countries, operate as intermediary funders (i.e., receive funding from primary sources and then allocates it to end recipients), making tracking challenging and increasing risks of double counting (see Chapter 4.).

Options to reflect the role of non-Party stakeholders in providing non-commercial finance contributions include, for example:

- **Encouraging relevant actors (e.g., philanthropies) to provide financial support.** This call could provide some incentives for relevant actors to contribute to the goals of the NCQG as part of a global effort. The NCQG decision text could capture the role of non-Party stakeholders by stating: *"Non-Party stakeholders with the capacity to provide non-commercial financing in developing*

countries are encouraged to contribute to do so with the aim of assisting the implementation of domestic climate action towards the achievements of Article 2 of the Paris Agreement”.

- **Encouraging Parties to collaborate with non-Party stakeholders to enable their contribution towards the NCQG.** There are several ways, through which Parties can enable non-commercial contributions from the private sector, for instance by creating sector-specific funds that align with the priorities of non-Party stakeholders, encouraging non-Party stakeholders to invest in technology and innovation funds, or more broadly promoting non-commercial impact investing among private investors and philanthropies. The NCQG decision could capture this approach by stating: *“All Parties are encouraged to facilitate meaningful contributions from non-Party stakeholders, including the private sector, civil society, and financial institutions, towards the NCQG. [This could involve, creating mechanisms for match funding, supporting sector-specific initiatives, and promoting the development and use of innovative financial instruments].”* It is, however, important to note that, in quantitative terms, at least some of the private finance effectively provided through such mechanisms could be reflected in various elements of the “Private climate finance” cluster discussed in section 3.3.

3.2.4. Support for capacity building and technology transfer by Parties providing support and, potentially, non-Party stakeholders

Capacity building and technology transfer are key elements for enabling climate action in developing countries but are typically not reflected in available estimates of investment and financing needs (see section 2.1). However, capacity building and technology transfer are often embedded in the provision of financial support. For example, according to the OECD Development Assistance Committee (DAC), between 2018 and 2019, climate-related capacity development activities represented on average at least USD 10.7 billion of Official Development Assistance (ODA), i.e., 44% of total climate-related commitments by DAC members (Casado Asensio, Blaquier and Sedemund, 2022^[80]). There is a broad range of evidence¹² that illustrates how these elements are crucial helping developing countries leapfrog to cleaner, more sustainable technologies and practices, while also building their indigenous capabilities in climate science, policy formulation, and technological innovation. Capacity building for governments is particularly relevant also for supporting developing countries in creating the necessary enabling environments that allow for the broader and more effective catalysation of private finance (e.g., by assisting in crafting supportive renewable energy policies, or guiding entrepreneurs on accessing green financing).

- In this context, the NCQG could offer an opportunity to directly address both capacity building and technology transfer support, potentially even addressing the role of non-Party stakeholders in this context, to help better integrate them in a more systematic way in climate action. Different approaches can be undertaken to reflect the role of these different types of support in the NCQG, including:
- **Recognising the role of capacity building and technology transfer to support developing countries achieving the goals of the Paris Agreement.** This approach could provide clear incentives for scaling up and explicitly tracking this type of support. It could for instance be reflected in the NCQG text as follows: *“Parties recognise that the provision of capacity building and technology transfer is a key enabler for the achievement of effective achievement of the goals of the Paris Agreement”.*
- **Incorporating guidance on capacity building and technology transfer in the context of specific challenges or barriers faced by developed countries.** Following this approach, specific recommendations on key target areas for these types of support could be used to complement

¹² See, for example: (Casado Asensio, Blaquier and Sedemund, 2022^[80]), (UNEP, 2023^[139]), (Alpizar et al., 2019^[140]), (Godfrey et al., 2002^[141]), (Khan, Mfitumukiza and Huq, 2019^[142]), (Lemos et al., 2013^[143]).

other elements of the NCQG. For example, should Parties decide to address the issue of “access to finance” (see the following section 3.2.5), the relevant provision could include an explicit call, e.g. “[Parties contributing to the NCQG] [are encouraged to / seek to / ...] undertake efforts to provide capacity building support to developing countries in meeting the requirements to access international public support”. Other examples of targeted capacity building guidance that would follow this approach are presented in clusters 2 and 3.

3.2.5. Qualitative considerations that can help further strengthen the provision of public finance

Broad consensus exists across Parties regarding the need to consider the quality and effectiveness of climate finance as part of the NCQG (Fricano and Kumarsingh, 2022^[81]; Fricano and Kumarsingh, 2022^[82]). Moreover, in their submissions, several Parties pointed to existing difficulties in accessing and attracting climate finance (UNFCCC, 2024^[9]). These challenges stem from limited capacity, constrained fiscal capacity, elevated capital costs, and substantial debt levels, as also recognised in decision 4/CMA.5 (UNFCCC, 2023^[83]). Consequently, several Parties emphasised the necessity for financial resources within the NCQG to be, *inter alia*, predictable, and affordable, without worsening the existing debt burdens in developing countries.

The NCQG could reflect these concerns and offer guiding principles, qualifiers, or sub-targets on the provision of financial support (see Box 3.1). While some of these elements are particularly critical to this first cluster relating to public financial support, many of these elements are also directly relevant to clusters 2 (private finance) and 3 (domestic efforts) and are hence further discussed and exemplified in sections 3.3 and 3.4 respectively. To note that this section presents only some examples of the many qualitative considerations that could be incorporated in the NCQG.

Reflecting the importance of different climate themes

Historically, as illustrated in section 2.2, climate finance had focused mainly on mitigation activities, both globally and in developing countries. In the context of the USD 100 billion goal, mitigation accounts for 66% of total climate finance provided and mobilised between 2016 and 2021 (OECD, 2023^[50]). This relative focus on mitigation may be attributed to a variety of factors, including, but not limited to, the need to finance mitigation action upfront to try and minimise climate change, more clear-cut return on investments, easier measurability of impact, lower cost of adaptation measures relative to mitigation ones and higher appeal to the private sector (OECD, 2022^[37]; CPI, 2023^[3]). Nonetheless, the need for greater balance between different thematic areas is increasingly recognised, particularly to align finance with developing countries' needs and to address the evidence that adaptation is currently underfunded. Several countries, in their submissions, put forward the need for the NCQG to set guidance on the allocation of climate finance across different climate themes (most notably, adaptation, mitigation, and loss and damage). Nevertheless, some Parties express reservations about setting quantitative targets for balance due to the larger scale, and different use of instruments, of mitigation projects in comparison to adaptation projects (UNFCCC, 2024^[9]).

Many developing countries are experiencing significant economic and non-economic losses due to climate change impacts. Consequently, some Parties have called, in their submissions, for the recognition of loss and damage in the NCQG and/or for its inclusion in the goal. The potential incorporation of loss and damage within the NCQG raises important considerations regarding its relationship (including overlaps) with adaptation efforts, and its connection with ongoing processes such as the newly established Fund for responding to loss and damage. This issue is not further explored in this paper but would merit further analysis.

The relative importance of different climate themes could be addressed in the NCQG by, for example:¹³

- **Encouraging Parties contributing to the NCQG to dynamically reflect both the sustained importance of mitigation and growing importance of adaptation and/or loss and damage in their provision of support in the context of the NCQG.** This approach could help in ensuring that the allocation of climate finance is more directly aligned with the specific, expressed needs and priorities of developing countries, facilitating a more effective distribution of resources. As different developing countries will have different thematic priorities, this approach would not allow for detailed guidance on what share of climate finance is to be allocated for what climate theme. A possible formulation for inclusion in the NCQG decision text might read: *"Parties recognise the importance of prioritising climate finance in a manner that directly responds to the needs and priorities of developing countries, ensuring that support for [adaptation / mitigation / loss and damage] is allocated to reflect these priorities."*
- **Setting quantitative sub-goals for one or more thematic areas (e.g., mitigation, adaptation, loss and damage)** (see Box 3.1). This approach can help provide more specific guidance and incentives to providers and help counteract the market-driven trends in the allocation of climate finance. At the same time, the adoption of sub-goals could both prevent responding to evolving needs across climate themes and promote a siloed approach to climate action as efforts to distinctly separate areas such as mitigation and adaptation from other developmental priorities could work against the need for integrated planning and execution. Moreover, such an approach does not consider that some climate projects are, by default, cross-cutting. Pairing theme-based sub-targets with other categories like country groupings or financial instruments could help a multifaceted approach. As an example, an adaptation-specific sub-target could particularly emphasise Small Island Developing States (SIDS) or prioritise grant-based funding. Alternatively, introducing minimum floors for each thematic area might counterbalance strict allocations, acknowledging that projects may be categorised under multiple thematic areas and ensuring foundational support for each theme while retaining allocation flexibility. Such nuanced strategies can cater to the diverse needs and capacities of countries, various climate actions, and the multifaceted nature of climate change challenges. Should Parties decide on the use of sub-targets, the NCQG decision text could indicate: *"Of the USD XXX billion to be [provided / mobilised], at least [USD XX billion / X%] [should] be for [adaptation]"*.

Reflecting the issue of access to finance

Numerous studies have highlighted developing countries' significant challenges in accessing international public climate finance.¹⁴ These challenges are linked to, inter alia, fragmentation of the climate finance architecture, accreditation barriers, challenges in complying with a wide range of diverse eligibility criteria and application requirements, and limited reach to local organisation (OECD, 2023^[84]; Fouad et al., 2021^[85]; Government of Japan, 2022^[86]). Discussions throughout the TED2 have highlighted the importance of reflecting this issue in the context of the NCQG (Fricano and Kumarsingh, 2022^[87]). This element could be addressed by, for example:

¹³ A possible third approach is that of recalling the importance of achieving a balance between adaptation and mitigation and encouraging providers to strike such a balance. However, this approach is not explored further as would leave space for Parties' interpretation of the meaning of "balance", thus not necessarily taking into consideration and being in line with developing countries' needs and priorities". Additionally, this approach promotes a static perspective on the evolving needs related to climate change.

¹⁴ Access to capital markets is another, separate, yet key barrier for developing countries. This issue pertains to Cluster 2 on "Private climate finance".

- **Requesting Parties contributing to the NCQG to provide clear documentation and guidance on the access modalities of their bilateral climate finance.** Access to bilateral climate finance often hinges on bilateral relations between countries. While several climate funds and MDBs have taken significant steps to improving access to public funds, less progress has been demonstrated in the context of bilateral finance (OECD, 2023^[84]). This provision could be further enhanced by requesting providers to report, e.g., as part of the Global Stocktake (GST) process, on the steps undertaken to improve access to finance. In addressing this point, the NCQG decision could include: *“[Parties contributing to the NCQG] [are encouraged to] develop clear documentation and guidance on how to access bilateral public finance, and take steps in facilitating access, particularly to those developing countries with limited capacities”*.
- **Calling on international providers including MDBs and multilateral climate funds, to facilitate enhanced and simplified access to financial resources.** This requires these institutions to streamline application processes, reduce bureaucratic hurdles, and provide more direct pathways for developing countries, especially those most vulnerable to climate impacts, to tap into available funds. Efforts could include the development of user-friendly platforms for application, transparent criteria for funding eligibility, and proactive support for applicants in preparing their submissions. Similar to the approach above, providers could be requested or invited to provide relevant and timely inputs on steps taken to improve access to finance in the context of the GST. To address this issue, the NCQG decision could state: *“International financial institutions, including MDBs and climate funds, [are urged to / are called to] implement measures aimed at streamlining access procedures, enhancing transparency in funding criteria, and offering dedicated support to developing countries in their efforts to secure climate finance”*.
- **Establishing goals for financial resources to be allocated to groups of developing countries that face significant barriers to access,** such as LDCs and SIDS. As discussed earlier, sub-goals can provide very clear incentives for providers on how to allocate public funds. At the same time, they bear the risk of adding a layer of complexity to the NCQG, and further limiting flexibility of an already rigid system of allocation of resources (see also Box 3.1). Following this approach, the NCQG text could include language similar to: *“[Parties contributing to the NCQG] [should aim to / seek to] allocate a minimum floor of USD XX billion/ XX% to LDCs and SIDS, noting the unique challenges that these countries face in accessing public climate finance.”*

Taking into consideration the sustainability of debt burdens

As highlighted in section 2.2, debt finance (both public and private) plays a central role in financing climate action. At the same time, many developing countries face a significant sovereign debt burden. A number of developing countries have also expressed their concerns regarding debt sustainability in their submissions (UNFCCC, 2024^[9]). Due to the magnitude of this issue and its links to many factors inherent to the wider global financial architecture, the NCQG on its own will not be able to address the issue of debt burden in developing countries. However, the NCQG could set some incentives that can somehow recognise its relevance for developing countries. In the context of public finance specifically, this element could be addressed in the NCQG by, for example:

- **Explicitly acknowledging and recognising that many developing countries face increasing debt sustainability challenges, and that non-debt instruments are critical to supporting developing countries.** The NCQG could build on the foundation laid by decision 4/CMA.5 by not only noting the importance of non-debt instruments, but also by calling for their active promotion and utilisation, possibly providing further guidance on the specific circumstances where such instruments are most useful (UNFCCC, 2023^[83]). For example, the NCQG decision could be enhanced to state: *“Parties recognise the critical need for non-debt financial instruments in alleviating the financial burdens on developing countries, [urging] [Parties contributing to the*

NCQG] to prioritise these mechanisms in their support strategies [for developing countries at high debt distress], thereby facilitating sustainable *development and climate action pathways*.”

- **Encouraging Parties and other relevant stakeholders to make progress on addressing debt sustainability in parallel processes.** Due to the high complexity of the debt sustainability issue, co-ordinated efforts across a wide variety of actors will be required to make meaningful progress. This falls beyond the scope of the NCQG. At the same time, the NCQG could recognise these parallel processes and call on Parties to take steps towards these efforts. These include the Summit for a New Financial Pact, the Paris Club, the G20 Common Framework for Debt Treatments, or the IMF-World Bank Debt Sustainability Framework (DSF) for Low-Income Countries. For example, the NCQG could include a provision similar to: “Parties and other relevant non-Party stakeholders are urged to make progress to tackle debt constraints in developing countries, collaborating through international *processes including [mention of specific initiatives]*”.
- **Encouraging or requesting Parties providing support to explore or scale up the use of instruments that incentivise climate action while addressing debt sustainability (e.g., through Climate Resilient Debt Clauses or debt-for-climate swaps).** Specific instruments that could be mentioned include debt-for-climate swaps, which provide debt relief in exchange for investments in climate-resilient infrastructure or natural resource conservation projects, or Climate Resilient Debt Clauses, designed to make countries' debt obligations more flexible in the face of natural disasters or severe climate events (OECD, 2023^[84]; Mustapha, 2022^[88]). Other useful instruments that do not add on debt burden include guarantees. Similarly, this approach could also involve encouraging local currency lending (Bhattacharya et al., 2023^[79]). For example, the NCQG could include a provision similar to: “[Parties contributing to the NCQG] *[are requested / are encouraged to / ...] consider the use of instruments that address debt sustainability, including debt-for-climate swaps and Climate Resilient Debt Clauses in developing countries under high public debt distress*”.
- **Including quantitative goals on the provision of non-debt finance for non-commercially viable activities in specific developing countries groupings, e.g., SIDS, LDCs, or developing countries with high debt sustainability risk.** While setting such goals could directly address the financial needs of these vulnerable groups and ensure targeted support, it also introduces challenges in terms of defining eligibility criteria and monitoring compliance tracking (see also Box 3.1). This approach would require careful consideration of the balance between specificity in support and the administrative complexity it entails. Moreover, it would require robust tracking mechanisms to ensure transparency and accountability. The NCQG text might then include: “[Parties contributing to the NCQG] *[should / are encouraged to] provide a minimum of USD XX billion/XX% in grants to [SIDS and LDCs / developing countries at high debt distress]*”.

Enhancing the effectiveness of support provided

Understanding the efforts of developing countries to create this context, is key to ultimately maximising the effectiveness of such finance. For example, the existing USD 100 billion goal was set “in the context of meaningful mitigation actions and transparency of implementation” (decision 14/CMA.1) (UNFCCC, 2019^[2]). As part of the ETF guidelines on the reporting of information on financial support received, developing countries will be requested to include in their Biennial Transparency Reports (BTRs) information on the status of the activity supported by financing received (e.g., “ongoing”, “completed”, etc.) as well as on its impacts and estimated results. Overall, strengthened reporting of information on the use, impacts and results of climate finance interventions is important not only for accountability, but also help identify developing countries' priorities and outstanding challenges, which in turn can make international support more targeted and responsive to developing countries' needs and priorities. The NCQG could address this issue by, for example:

- **Recalling the ETF's request for developing countries to report information on the impacts and estimated results of climate finance received.** This could be further strengthened by capturing the impacts of climate finance as part of the tracking and transparency arrangements of the NCQG, noting however that, due to limited financial resources and capacities, some developing country Parties may find it challenging to gather and report such information. For example, the decision text could state: "The NCQG is established in the context of meaningful mitigation actions and transparency on implementation. As such, Parties receiving support are encouraged to report on its impacts and estimated results of the activities supported by public finance, in accordance with the Enhanced Transparency Framework of the Paris Agreement".
- **Encouraging Parties contributing to the NCQG to support developing countries in their efforts of tracking the impacts and effects of financial support received, for example through dedicated capacity-building activities.** The NCQG could include a specific call for its contributors to prioritise targeted capacity-building activities, which are essential for ensuring that developing countries can effectively monitor and evaluate the effectiveness of received climate finance. The NCQG could incorporate language to this effect: "*[Parties contributing to the NCQG] [are encouraged to] offer dedicated capacity-building initiatives to developing countries, focusing on enhancing their ability to track, assess, and report on the impacts of received climate finance.*"
- **Encouraging Parties contributing to the NCQG, MDBs, and multilateral climate funds to enhance their efforts in reporting information on the results and impacts of their climate finance projects.** Currently, only a limited number of provider Parties and multilateral institutions regularly report and publish information on the results and impacts of the climate activities they support. These Parties and actors currently have no reporting obligations on this under the Paris Agreement. The NCQG could recall the importance of strengthening efforts towards this aim and encourage Parties and multilateral institutions providing support to provide relevant and timely inputs on the results of their climate finance activities to the GST process. The NCQG could incorporate language to this effect: "*[Parties contributing to the NCQG / MDBs and climate funds] [in co-operation with developing country Parties] [are encouraged to / are requested to] enhance their efforts in regularly reporting and publishing information on the results and impacts of their climate finance projects*".

Gender responsiveness and inclusivity

To ensure the effectiveness and inclusivity of the goal, some Parties have highlighted the importance of acknowledging the disproportionate effect of climate change on vulnerable groups like women and indigenous people. Indigenous communities often inhabit ecologically sensitive areas like mountains, coastlines, and forests, and consequently face displacement rates seven times higher than the global population average (Lila Ram and Shahzar, 2024^[89]). Their vulnerability is compounded by their reliance on traditional practices, hindering their adaptability to changing conditions, and their often-marginalised status with poverty rates two to three times higher than the global average (Lila Ram and Shahzar, 2024^[89]). Similarly, climate change impacts men and women differently, largely due to gender-based disparities in power, roles and responsibilities within households and communities (Open Data Watch, 2023^[90]). Women are often overrepresented among the poor, possess fewer productive assets, rely more on natural resources for livelihoods, and have limited decision-making authority over policies affecting them (Duerto-Valero and Kaul, n.d.^[91]). Considerations on gender responsiveness and inclusivity of indigenous people could be addressed in the NCQG following different approaches, for example:

- **Encouraging Parties and other relevant stakeholders to take into account considerations related to vulnerable groups in their climate finance efforts.** The NCQG could help bring attention to the impacts of climate change on vulnerable groups and provide incentives to contributors by, for example, incorporating language to the effect of "*Parties acknowledge the disproportionate effect of climate change on certain groups of the global population, including women and indigenous people. [Parties contributing to the NCQG] [are encouraged to] increase their efforts in providing support to these groups*".
- **Encouraging Parties to strengthen monitoring, evaluation, and reporting mechanisms that systematically collect and analyse social and gender-disaggregated data on climate finance**

allocation and outcomes. Seeking to collect and make this data available can help policymakers to accurately assess the differential impacts of climate interventions on women and diverse social groups and indigenous communities, ensuring that resources are allocated effectively to address their specific needs and priorities. The Common Tabular Formats (CTFs) developed under the ETF do not currently include any fields related to the reporting of such information. However, Parties could nonetheless be encouraged to report on this as part of the “additional information” field. For example, the NCQG decision text could read: “[Parties contributing to the NCQG] [are encouraged to] enhance their efforts in reporting whether and how their climate finance contributions contribute to addressing vulnerable groups, including women and indigenous people”.

Box 3.1. Advantages and challenges of sub-goals

The use of sub-goals—quantified, nested targets within the broader scope of the NCQG—has been a key discussion point in the TEDs (Fricano and Kumarsingh, 2022^[81]); (Fricano and Kumarsingh, 2022^[82]); (Gilbert and Fakir, 2023^[92]). In general, sub-goals can help counteract specific patterns in climate finance distribution that might arise from the inherent incentives and disincentives set by aggregate and collective targets. Moreover, sub-goals can allow for more granular evaluation, and can help better reflect developing countries' needs on aggregate, consistent with the NCQG's wider vision, and ensure these priorities are reflected within overall climate finance distribution. At the same time, sub-goals will be most effectively applied to a sub-set of climate finance – specifically to public climate finance, given that private finance mobilisation is outside of the direct control of Parties and other public finance providers. Moreover, sub-goals can potentially reduce the flexibility of finance provision by pre-defining priority areas and, if not sufficiently granular, may come at a cost to meeting priorities of individual countries. Sub-targets can also heighten access barriers by increasing the complexity of the climate finance architecture and risk fostering a siloed approach.

The complexity of implementing sub-goals becomes more evident when considering multiple levels. Having more than one level of sub-goals may lead to either synergistic or conflictual interactions across different levels, adding a further layer of complexity to their implementation and management.

Sub-goals can be formulated in various ways:

- **Absolute sub-goals set a fixed amount that does not change regardless of other variables** (e.g., "provide USD X billion for the energy sector"). This type of sub-goal can offer a clear target that are easy to understand and measure. However, their fixed nature means they may not adapt well to changing circumstances in overall financing, as well as changes in technology costs.
- **Proportional sub-goals based on allocating shares of a total** (e.g., "of the total climate finance provided, X% should be provided to low-income countries, X% to upper-middle-income countries, etc.,"). This type of sub-goals offers a way to distribute resources across different categories, ensuring each receives a predetermined share of the total. This approach may fail to account for changing needs or opportunities in different categories over time.
- **Minimum floors establish a minimum level to be reached or maintained** (e.g., "ensure that at least [USD X billion / X%] of climate finance is provided to the LDCs"). This type of sub-goal is useful to ensure critical areas receive at least a minimum number of resources and offer flexibility to exceed the minimum. However, floors could potentially lead to complacency, where the minimum becomes the default or maximum effort, rather than a starting point. Opposite to minimum floors are ceiling caps, which set an upper limit. These sub-targets prevent over-allocation of resources to certain areas but might hinder necessary investments and limit flexibility to respond to changes.
- **Incremental sub-goals set relative to other variables** (e.g., "increase the proportion of climate finance targeting adaptation by 30% compared to 2020 levels by 2030"). These types of sub-goals are flexible and automatically adjust to changes in the overall context. On the downside, if the baseline is low, a relative increase may still result in inadequate absolute amounts for critical areas.

Importantly, the main approach discussed so far in relation to sub-goals, has been that of enshrining sub-goals within the NCQG as a top-down approach. A possible second option relates that to encouraging a bottom-up approach, whereby the NCQG would encourage Parties or other relevant stakeholders to set their own sub-goal they intend to pursue in the context of the NCQG.

Source: Authors, based on an unpublished technical note developed to inform discussions at the September 2023 CCXG Global Forum.

3.3. Cluster 2: Private finance mobilised and catalysed for climate action

Chapter 2. highlighted the increasing role of the private sector in supporting developing countries' climate action. Indeed, decision 11/CMA.5 underscores the “need for enhanced provision and mobilisation of climate finance from a wide variety of sources (UNFCCC, 2023^[93]). Discussions at TED1, as well as a number of Party submissions, acknowledged the importance of the private sector in scaling up resources for developing countries (UNFCCC, 2024^[9]) (Fricano and Kumarsingh, 2022^[81]).

The public sector can help scaling up private finance through a range of public finance and policy interventions that contribute to mitigating risks and creating favourable conditions (Haščič et al., 2015^[55]). Under the Paris Agreement, the efforts of the public sector in this context are defined as “mobilising” private finance. Notably, under Article 9.7 of the Paris Agreement's developed country Parties shall provide information on support for developing country Parties provided and mobilised through public interventions (Paris Agreement, 2015^[94]). Accordingly, under the Paris Agreement's ETF, private climate finance can be reported as being mobilised by a set of financial instruments (such as grants, guarantees, insurance, etc.), or by “policy interventions”, “capacity-building”, “technology development and transfer”, “technical assistance”, and “other” (Decision 5/CMA.3, CTF Table III.3).

Empirical evidence and practical experience in measuring and assessing the effect of public interventions on private finance, however, point out to the importance of distinguishing between on the one hand the specific role of public finance instruments in mobilising private finance, and, on the other hand the combined effect that a wider range of public interventions, including public policies, have in catalysing private finance. Table 3.1 below suggests soft distinctions between the concepts of mobilisation and catalysation, recognising that both are components of finance mobilised under the Paris Agreement. Based on these considerations, this cluster identifies two possible elements for consideration in the context of the NCQG:

- Private climate finance mobilised by public finance interventions (section 3.3.2)
- Private climate finance catalysed by other types of interventions (section 3.3.2).

The first element - mobilising private finance through public finance interventions - features a direct and transparent relationship between the public finance mechanisms employed and subsequent mobilisation of private finance. This clear linkage allows for relatively straightforward tracking, including to separate out and avoid double counting between the role played by different individual public finance interventions. In this context, OECD statistical standards allow activity-level measurement and reporting of the mobilisation effect of mechanisms used by bilateral and multilateral official development finance providers (OECD, 2023^[95]). The second element involves the catalytic impact of a wider range of public interventions, including capacity building and public policies, within the context of broader enabling conditions. Here, evaluating the individual role of each intervention in relation to observed private finance involves a complex assessment of indirect effects and influences, which are typically not possible to separate out from one another nor to quantify.

The roles of different intervention types are interconnected, particularly because public policies and broader conducive conditions can significantly influence the extent to which public finance interventions can generate mobilisation (Haščič et al., 2015^[55]). Private investments and funding for projects and activities focused on low emissions and climate resilience in fact usually arise from a combination of various public interventions and broader conducive circumstances. Indeed, as introduced in section 2.2.2, the creation of enabling environments for investments are a key cornerstone for private sector involvement, and it is crucial to support developing countries in the establishment of such environments. Incentives that could be captured by the NCQG with a view of creating these environments is discussed as part of cluster 3 (section 3.4).

Table 3.1. Possible typology of public interventions having an effect on private finance

Element	Type of intervention	Examples
Private finance mobilised by public finance interventions	Public climate co-finance to individual projects	Grants, loans, direct equity investments, guarantees
	Public climate finance intermediated through upstream instruments	Credit lines, fund-level investments
Grey zone between the two building blocks	Capacity building for climate project demonstration or policy development	Capacity building grants, loans, technical assistance
Private finance catalysed by public policy interventions	Public financial support (financial incentive) as a result of climate policies or programs	Subsidy schemes, tax breaks
	Climate policies not providing financial support	Mandatory targets, labelling schemes
Broader policy and enabling conditions (not captured in cluster 2, see cluster 3 and chapeau)	Non-climate policies	Investment- and trade-related policies
	Enabling conditions	Political stability, legal environment, investment conditions, technology cost

Note: According to the OECD statistical standards for measuring private finance mobilised by official development finance interventions, the role played by technical assistance currently lies in between the mobilisation and catalysation categories, as methodological developments and pilot data collection exercises highlighted that activity-level measurement and reporting of private finance mobilised through technical assistance is only possible where a causal link can be clearly established, and double counting avoided.

Source: Adapted and expanded from (McNicoll et al., 2017^[96]), (Haščić et al., 2015^[55]) and (OECD, 2023^[95]).

3.3.1. Private climate finance mobilised by public finance interventions

As per the reporting directives and standards that underpin OECD DAC statistics and OECD tracking of progress toward the USD 100 billion goal, the mobilisation of private finance through official development finance interventions involves the use of specific leveraging mechanisms to attract additional financial resources from the private sector for development purposes (OECD, 2023^[95]). In this context, for this type of mobilisation, there must be a clear cause-and-effect relationship between private funds allocated to a particular project and the leveraging mechanism employed by bilateral and multilateral official development finance providers.

There are a few key considerations to be made in the context of determining how to best reflect the mobilisation of public finance interventions in the context of the NCQG. These are briefly discussed in the following sub-sections. In all cases, these considerations can apply to the different categories of public climate finance providers discussed at length in section 3.2, whereby the same approaches identified in section 3.2.1 could, in fact, be applied to any target on private climate finance mobilised.

Setting a quantified goal for private finance mobilisation

The mobilisation of private finance, even if linked to public finance interventions, is highly dependent on external factors such as enabling environments and regulatory frameworks. It is therefore difficult for a public provider to precisely predict how much private finance a specific intervention will mobilise (OECD, 2021^[97]). For this reason, there may be a rationale for setting a goal on mobilisation that is separate from a goal on provision (i.e., Cluster 1). A goal on mobilisation would ideally allow for some flexibility in terms of precise quantum and capture the need to significantly scale up efforts for mobilisation. To reflect this issue, the following approach could be adopted:

- **Setting a quantified, absolute goal for NCQG contributors to mobilise private climate finance, including through multilateral institutions.** This approach could provide a clear, measurable goal, offering transparency and a straightforward metric for progress, while acknowledging the challenges and uncertainties in predicting the impact of specific interventions.

To reflect this approach, the NCQG could include language similar to: “*Parties [should], both as bilateral providers and through multilateral channels, seek to mobilise USD X billion to support climate action in developing countries.*” This goal would necessarily need to be tied to the target set for public climate finance (see 3.2.1 and 3.2.2), as the mobilisation of private finance results from mechanisms used by public finance providers.

Some providers sometimes set and report on private finance mobilisation targets as a percentage of public climate finance provided. This approach is not considered here as aggregate level leverage ratios between private finance mobilised and public finance come with significant transparency limitations as well as risks, including in terms of setting incentives to maximise such ratio (Jachnik and Raynaud, 2015^[98]).

Setting incentives for more effective private finance mobilisation by international providers

Assessments of progress towards the USD 100 billion goal indicate that the mobilisation of private finance from public finance interventions has fallen short of both expectations and potential (OECD, 2023^[50]). This was due to many reasons, including insufficient use and tailoring of risk mitigation instruments by international providers, limitations in project pipeline, high risk perceptions, as well as the complexity of regulatory frameworks across different jurisdictions (OECD, 2023^[39]). In this context, the NCQG could help set incentives for more strategic approaches by international providers towards scale up the mobilisation of private finance, noting some of the interdependencies with domestic efforts detailed in Cluster 3 (section 3.4 below).

- **Calling on Parties and international providers to enhance the effectiveness of their mobilisation strategies.** There is evidence that many critical investments in decarbonisation, particularly but not limited to clean energy, are already or close to being commercially viable in some developing countries. Private finance mobilisation would ideally become the default approach for public finance directed towards climate investments in sectors where the commercial dynamics have evolved to improve the prospects of private sector participation, for example where new technologies have become more mature and risks and returns better understood (OECD, 2023^[39]). For example: “*[Parties contributing to the NCQG and multilateral institutions] [are urged to / seek to] re-orient their public finance to the aim of mobilising private finance in mature sectors and markets, including clean energy.*”
- **Calling on the MDBs to strengthen their mobilisation potential while avoiding unintended consequences on wider development priorities.** Recent debates on the evolution of MDBs have centered around the need for these institutions to enhance their use of resources and balance sheets to maximise development impact and mobilise private capital more effectively, particularly for climate finance (OECD, 2023^[39]; G20 Independent Expert Group, 2023^[99]; G20 Independent Expert Group, 2023^[100]). This includes calls from G20 and G7 leaders for MDBs to adopt innovative risk-sharing instruments, set ambitious mobilisation targets, and reform their approaches to leverage private finance, amidst recognition that despite their potential, MDBs’ current private finance mobilisation remains relatively low compared to the available global private capital (G7, 2023^[101]). The NCQG offers an opportunity to further recognise and stress this important point, including a provision that explicitly calls on the MDBs and their shareholders to revise their approaches to mobilisation. For example: “*MDBs and their shareholders [are called / are urged] to evaluate and adjust their operational strategies for mobilising private finance, aiming to optimize the use of innovative financing mechanisms, such as risk-sharing instruments, and to set ambitious targets for the mobilisation of private capital, particularly in the realm of climate finance.*”
- **Setting the basis for strengthening co-ordination and collaboration between different actors.** Initiatives such as country platforms, including Just Energy Transition Partnerships (JETPs) or the Climate Club Global Matchmaking Platform, are emerging as promising avenues for strengthening the co-operation between public and private sector and enhance the mobilisation

of private finance (Climate Club, 2023^[102]). The NCQG decision could recognise ongoing efforts in this area and further incentivise Parties to increase their efforts in this space. For example, the NCQG text could *“Recall the importance of strengthening co-ordination and collaboration between bilateral and multilateral climate finance providers, domestic actors, and the private sector, including through the establishment of country platforms”*.

- **Recalling the importance of regular and granular reporting on the mobilisation of private climate finance.** Substantial gaps in data hinder the evaluation of the track record and prospects for mobilising private finance through international public climate finance. These gaps pose considerable challenges for policymakers aiming to discern effective strategies across different sectors and regions. Under the ETF, developed country Parties will be able to report information on private climate finance mobilised. The NCQG could further highlight the pivotal importance of this exercise and include a relevant provision. For example, the NCQG could include language like: *“Recognising the fundamental importance of availability of information on private finance mobilised, [Parties contributing to the NCQG] should continue enhancing their quality of their tracking and reporting of climate finance mobilised in accordance with the provisions of Article 13 of the Paris Agreement”*.

3.3.2. Private finance catalysed by other public interventions

As already introduced above and in section 2.2.2, private investments and financing for low-emissions and climate-resilient projects and activities are typically the result of the combined effects of a range of public finance and policy interventions as well as of broader enabling conditions (Haščič et al., 2015^[55]). A range of programmatic and upstream level-interventions and divers also play a role to help catalyse private investments and financing, including capacity building and general policy support by international providers; financial incentives resulting from domestic climate-related policies (e.g., tax breaks, subsidies); other domestic policies defining norms or standards; broader policy and enabling conditions.

Estimating the effects of individual capacity building and policy interventions on private finance remains very challenging (McNicoll et al., 2017^[96]). This is due to data constraints, methodological issues (defining accounting boundaries, addressing time lags) as well as high risks of double counting when aggregating estimates. Moreover, because catalysation of private investments is the result of the combined effects of wide range of public interventions and enabling conditions, it is impractical to include provisions in the NCQG that target specific groups of Parties on this matter. Unlike the case of public finance provision, where responsibilities and contributions can be more directly assigned and measured, the diffuse and multifaceted nature of catalysation makes setting specific quantified goals for individual Parties or groups of Parties challenging. This points out to the necessity of an approach that also considers the importance of creating conducive environments for private finance catalysation. This includes strengthening policy and regulatory frameworks to enable efficient capital reallocation, as further discussed in Cluster 3, “domestic efforts” (section 3.4).

If Parties wish to specifically address the catalysation of private climate finance within the NCQG, approaches may include:

- **Recognising the importance of scaling up private finance to achieve the goals of the Paris Agreement, including through policy support, technical assistance and other approaches.** Given the uncertainty and difficulty in tracking private climate finance catalysed, the NCQG could include strong language that recognises its key role, without setting specific guidance on the course of action. Other provisions of the NCQG, such as those proposed for domestic efforts under cluster 3 in this paper, can provide clearer guidance to both Parties providing support and Parties receiving support on what steps to take to incentivise the catalysation of private finance going forward: For example: *“Parties recognise the key role to be played by the private sector in scaling up climate*

finance to achieve the goals of the Paris Agreement and the critical role played by public interventions in this context”.

- **Setting an aspirational goal for Parties contributing to the NCQG to strengthen capacity building and co-operation efforts with developing countries on regulatory environments and policies conducive to scaling up private investments for climate action.** Notwithstanding the importance of domestic action to set relevant enabling conditions for catalysing private investments (see cluster 3), developed countries can play a pivotal role in supporting developing countries in this endeavour. Efforts should focus on helping reduce known barriers (e.g., relatively weak local capital markets, high risk and cost of capital) through mechanisms like risk guarantee instruments, facilitating access to international capital markets, and providing technical assistance to improve local financial institutions' capacity to support green investments. This approach could also involve setting a quantitative aspirational target for catalysation, recalling the top-tier, holistic goal presented in the NCQG's preamble (section 3.1). For example: “[*Parties contributing to the NCQG*] [*are urged to / are encouraged to*] *enhance their support to developing countries specifically to promote the catalysation of private finance by advancing targeted policy interventions, improving regulatory frameworks, and fostering capacity-building initiatives*”.

3.4. Cluster 3: Domestic efforts by all Parties

Parties' own domestic efforts can have a significant impact in scaling up finance for climate action. Overall, the establishment of incentives that foster a positive reinforcement cycle and acknowledge the ambition of all Parties that provide and benefit from support can significantly increase the NCQG's efficacy. The usefulness of targeted domestic incentives, policies, and enabling environments for steering climate investments is further supported by a wide range of literature (OECD, 2023^[39]; Ang, Röttgers and Burli, 2017^[103]; OECD, 2021^[104]). The 2022 Kunming-Montreal Global Biodiversity Framework sets a relevant example in this context. The framework includes targets related to reform of subsidies harmful to biodiversity (target 18), increase of domestic resource mobilisation for biodiversity (target 19) and stimulating innovative financing schemes for biodiversity (target 19) (Convention on Biological Diversity, 2022^[105]).

As part of the initial phase of the ad hoc work programme on the NCQG, it was widely acknowledged that setting economic policies and goals at the national level is effective in channelling public funds efficiently and ensuring that the flow of climate finance aligns with a trajectory that supports development resistant to climate change and minimizes greenhouse gas emissions (Fricano and Kumarsingh, 2022^[82]). Some Parties in their submissions refer to the relevance of domestic efforts in the context of the NCQG (UNFCCC, 2024^[9]).

This third cluster is designed to offer guidance on actions and efforts conducive to incentivising the more efficient provision and utilisation of climate finance, with the aim of ultimately contributing the mobilisation of resources at a scale compatible with the financial needs for the achievement of the Paris Agreement's goals. These elements would address both developed and developing country Parties. At the same time, considering the unique challenges and resource constraints of many developing countries, each element discussed in this cluster also incorporates signals and incentives targeting developed countries specifically, encouraging further targeted support for developing countries in implementing their domestic efforts (see also cluster 1, section 3.2.4). These mechanisms are calibrated to strike a balance, ensuring that the guidelines foster co-operation without imposing disproportionate responsibilities on developing countries or on national sovereignty.

The cluster identifies three possible elements, discussed in the following sections:

- Incentives for public climate budgeting and spending (section 3.4.1),

- Incentives for strengthened enabling environments for climate-related investments (section 3.4.2),
- Incentives for the use of innovative instruments to raise further resources domestically (section 3.4.3).

These elements are just a few examples of the many that could be included in a cluster focusing on domestic efforts.

3.4.1. Incentives for public climate budgeting and spending

Climate public budgeting involves integrating climate change considerations into the planning, allocation, and spending of public finances to support mitigation and adaptation strategies (C40 Knowledge, 2023^[106]). It serves a dual purpose: directing resources towards climate-related initiatives and catalysing additional investments from the private sector and international sources. Moreover, for recipients of climate finance, it can enhance eligibility for international funding mechanisms like grants.

In the context of a global effort, the NCQG could more broadly provide the incentives for all Parties to adopt a long-term perspective in their budget planning processes to effectively integrate climate considerations into their national development agendas. There are several approaches for the NCQG to reflect such incentives. A non-exhaustive list includes, for example:

- **Encouraging Parties to evaluate the financial implications of implementing their national climate plans e.g., Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs), etc. as part of their budget planning processes and/or other investment planning processes.** Incorporating cost estimates of the implementation of NDCs and NAPs enables governments to develop realistic and feasible funding strategies to support the implementation of their climate commitments (Avgousti et al., 2023^[107]; Catalano, Forni and Pezzolla, 2019^[108]). This could include assessing the scale and type of finance needed to implement the NDC, as well as identifying which NDC elements are unconditional and will be covered by domestic finance, and which, if any, are conditional and require additional finance (Jeudy-Hugo et al., 2024^[109]). Moreover, clearly identifying possible cost needs for NDCs and other national climate plans can serve as an important signal, particularly for international providers to provide support, and thus contributing to linking demand with supply (OECD, 2023^[84]). This provision could be further strengthened by encouraging countries receiving support to report, for example as part of their BTRs or processes such as the GST, to what extent support received was useful in implementing their national climate plans. This approach can help create positive stories, reinforcing a cycle of ambition. For example, the NCQG could include language along the lines of: *“To ensure alignment of support with national ambitions, and to incentivise investment, developing country Parties are [encouraged to] include detailed cost estimates of the activities included, inter alia, in their Nationally Determined Contributions and national climate plans. Moreover, these Parties are [encouraged to] report on how support received in the context of the NCQG has contributed to the achievement of their climate objectives”*.
- **Encouraging Parties to adopt a long-term perspective in their budget planning processes to effectively integrate climate considerations into their national development agendas.** This involves mainstreaming climate-related goals and targets into national development plans, sectoral policies, and strategies. Parties could also be encouraged to consider climate risks and opportunities in their public procurement processes and investment (Martini et al., 2023^[110]). This entails incorporating climate risk assessments into project planning and appraisal processes, conducting climate-sensitive procurement procedures, and promoting green public procurement practices. Regarding public investment strategies, this can involve diversifying portfolios to include climate-resilient assets, promoting investments in renewable energy, sustainable infrastructure, and low-carbon technologies, and overall aligning investment decisions with long-term climate goals and international commitments (Catalano, Forni and Pezzolla, 2019^[108]). For example: *“With*

the aim of ensuring the efficient use of public resources in support of climate action and to leverage these investments to attract additional funding from private and international sources, Parties are encouraged to adopt comprehensive long-term strategies within their budget planning processes that fully integrate climate considerations. [Parties contributing to the NCQG] are urged to assist developing countries in implementing these strategies, through technical assistance, capacity building, and financial support”.

3.4.2. Incentives for strengthened enabling environments for climate-related investments

As illustrated in Chapter 2. , and further reiterated in the introduction to Cluster 2 on private climate finance, the private sector is a key stakeholder in addressing the climate financing gap. However, in many countries, private sector participation and investment have been limited, often due to the absence of regulatory and institutional frameworks that facilitate investment and incentivise more sustainable practices (Hutton and P. Rudolph, 2023^[111]). Encouraging the flow of private capital towards low emission options and climate-resilient pathways necessitates implementing suitable price and policy signals, alongside efforts to mitigate or reduce investment risk.

In their submissions, some Parties have specifically highlighted the role of public policy frameworks to support and enhance the mobilisation and catalysation of private finance. At the same time, some developing countries have stressed that, due to socio-political circumstances, it is often more difficult to attract private finance because of real and perceived risks to investors (UNFCCC, 2024^[9]). Moreover, discussions held at TED 2 and TED3, recognised the key role of public actors in enabling private sector involvement in climate action, including through the establishment of favourable regulatory frameworks for investments (Fricano and Kumarsingh, 2022^[87]) (Fricano and Kumarsingh, 2022^[82]).

In this context, the task at hand for policymakers, presenting both a challenge and an opportunity, involves utilising policy tools and limited public resources effectively to establish frameworks and incentives that enhance returns on low-emission investments, and make them more competitive compared to high-carbon alternatives (Averchenkova, 2019^[57]). The NCQG could play an important role in encouraging parties to take concrete steps toward enhancing these enabling regulatory frameworks, thereby maximising the effectiveness of the goal. There are different approaches for the NCQG to address this, including:

- **Encouraging the adoption of regulatory measures to boost private sector investments.** Such measures can include the implementation of energy efficiency mandates, establishment of fuel standards, resilient building codes, or minimum shares of renewable energy in key sectors such as transport (IMF, 2023^[56]; Hutton and P. Rudolph, 2023^[111]). While providing detailed guidance on what measures to implement nationally would fall outside of the scope of the NCQG, the goal could include language along the lines of: *“To increase the potential for mobilisation of climate finance from private sources, Parties are encouraged to take steps for enhancing regulatory frameworks aimed at incentivising private sector investments. [Parties contributing to the NCQG] are called on providing dedicated capacity-building support to developing country Parties to facilitate the establishment of such frameworks”.*
- **Promoting the use of fiscal instruments to incentivise climate investment and disincentivise high GHG and non-resilient activities.** Fiscal instruments could be used to mobilise climate finance in several ways: catalysing private climate investments, raising public funds for mitigation and adaptation initiatives, and disincentivising non-abated, high-emission non-resilient activities, (A. de Mooij, Keen and W. H. Parry, 2012^[112]). In this context, price-based fiscal instruments like energy taxes and carbon pricing initiatives, as well as subsidies, tax incentives and payments for ecosystem services can be effective tools (OECD, 2021^[104]; Hutton and P. Rudolph, 2023^[111]). Additionally, the revenue generated from these taxes can be strategically allocated to fund vital government services, climate mitigation/adaptation initiatives, and support vulnerable groups in

adapting to higher energy prices (Advani et al., 2021^[113]) (see also section 3.4.3). Similarly, fossil fuel and agricultural subsidy reform is also important to address due to its distortion of market signals which results in overconsumption and impedes the competitiveness of cleaner energy alternatives (OECD, 2021^[104]). The NCQG can incentivise these practices to enhance the effectiveness of the goal. For example: “All Parties *[are encouraged to]* consider the use of fiscal instruments including taxation to incentivise climate investments. In parallel, they are *[encouraged to]* prioritise the reform of fossil fuel subsidies, where this can be done without being detrimental to energy access or just transitions. *[Parties contributing to the NCQG]* *[are called on to]* support Parties that face unique challenges developing countries in the design and implementation of these measures, as relevant”.

- **Recognising the potential impact of certain domestic policies on the ability of other countries to attract climate finance.** The effectiveness of a country's climate policies can significantly impact its attractiveness to private climate investments, and can influence another country's investment landscape, both positively and negatively. Conversely, some policies, if not balanced, could create trade distortions with potential negative impacts for countries with emerging markets or less developed financial systems. The NCQG can address these dynamics. For example, it could state: “Parties *[are encouraged to]* align domestic climate policies with international climate finance objectives, fostering an environment conducive to cross-border investments in sustainable and low-emission technologies”.

3.4.3. Incentives for the use of innovative instruments to raise further resources domestically

Beyond international public finance and private investments, closing the financing gap for meeting the goals of the Paris Agreement will require also a scaling up of domestic resources. This could include ensuring that money already earmarked for domestic public spending is aligned or contributes to climate activities (see section 3.4.1), but also exploring the use of innovative instruments in raising further funding that could be invested in climate measures.

In this context, the NCQG could recognise and incentivise Parties' efforts in increasing domestic resources to finance climate action. In this context, innovative instruments such as Green, Social, and Sustainability (GSS) bonds, Sustainability-Linked Bonds (SLB), as well as carbon pricing initiatives, are a promising way to mobilise additional resources, particularly in developing countries with limited fiscal space (OECD, 2023^[114]).¹⁵ The potential of innovative instruments in raising further resources domestically is recognised by both developed and developing country Parties in their submissions (UNFCCC, 2024^[9])

In practice, in the context of a global effort and with a view of promoting increased ambition over time, the NCQG could reflect this point by:

- **Encouraging the use of innovative financial instruments to raise resources domestically for climate action and sustainable development.** A similar provision was included in the Paris Declaration for Aid Effectiveness, whereby “Partner countries commit to intensify efforts to mobilise domestic resources” (UNDP, 2005^[115]) On a similar note, decision 4/CMA.5, emphasises the role of governments and other actors in the context of “accelerating the ongoing establishment of new and innovative sources of finance, including taxation, for implementing climate action [...]” (UNFCCC, 2023^[83]). This could include calling Parties to carefully assess their fiscal capacity and debt sustainability metrics when considering the issuance of such financial instruments. At the same time, recognising the unique challenges of some developing country Parties in scaling up the use of innovative instruments, the NCQG could also provide more guidance to developed

¹⁵ For example, through GGS bonds and SBLs, countries can tap into domestic capital markets and attract a diverse range of investors, thereby reducing reliance on external sources of funding.

countries in how they can more concretely support developing countries in this space. For example, the NCQG could encourage Parties providing support to provide technical assistance and capacity-building support to developing countries in the design, issuance, and management of innovative climate finance instruments, to facilitate their integration into national climate finance strategies such as NDCs. Moreover, Parties providing support and international organisations could aid in the development of robust standards and regulations for issuing and listing innovative climate finance instruments that ensure transparency, credibility, and alignment with internationally recognised green finance principles. For example: *“Parties [are encouraged to] use innovative financial instruments including green, social, and sustainability bonds; sustainability-linked bonds, and carbon pricing initiatives to raise further resources for climate action. [NCQG contributors and relevant multilateral developing finance institutions] [are encouraged to] provide targeted capacity-building and technical support for developing countries to implement such efforts”*.

4. Potential indicators for different elements of the NCQG

Transparent tracking towards the elements that will be included in the NCQG is essential not only for informing more effective financing and policy actions but also for building trust among Parties. While transparency arrangements can be developed at a later stage, the potential nature of indicators and information sources should be considered in the process of designing and structuring the goal. This chapter outlines what types of indicators could be used for tracking progress towards the various elements identified in chapter 3. (section 4.14.1) and provides an overview of what sources of information could be useful for tracking progress towards the goal (section 4.24.2).

4.1. Types of indicators to track progress towards different elements

An indicator is a specific, observable, and measurable characteristic or change that shows the progress towards achieving a goal. Identifying good indicators for the elements included in the NCQG is crucial for effectively measuring progress towards their achievements, evaluating outcomes, and making informed decisions. While originally developed as a management tool, the SMART criteria are widely accepted as best-practice approach for developing indicators (Doran, 1981^[116]; McCarthy et al., 2012^[117]; OECD, 2019^[118]). Accordingly, a SMART indicator would be specific, measurable, attributable, relevant, and time bound.

In the context of the current USD 100 billion goal, no specific indicators were defined to track progress. In practice, annual volumes of climate finance provided and mobilised by developed countries have been the main indicator used (OECD, 2023^[50]; UNFCCC SCF, 2022^[119]; Oxfam, 2023^[120]). The USD 100 billion goal was set in the context of “meaningful mitigation action and transparency of implementation”, which, despite having received less attention in terms of indicator development and operationalisation, has led some organisations and institutions to track both qualitative and quantitative indicators, such as mitigation activities. For example, the UNFCCC Standing Committee on Finance (SCF) considered data on the adoption of policies, laws, and regulations pertinent to climate action. This includes the number of countries with climate laws directly targeting GHG reductions, carbon pricing mechanisms, and the percentage of total GHG emissions these cover (UNFCCC, 2022^[121]). In 2022, the OECD also attempted to measure progress towards the goal by assessing the impact of climate finance on reducing GHG emissions and increasing climate resilience in developing countries. However, due to limited data, a comprehensive assessment was not possible (OECD, 2022^[37]).

This paper highlights that, beyond monetary volumes, the NCQG offers the opportunity to capture a variety of other dimensions critical for assessing the impacts and effectiveness of climate finance. These dimensions include qualitative indicators such as technical and financial capacity in developing countries, their ability to access finance, and improvements in the environments that facilitate climate investment. Table 4.1 below outlines possible headline indicators to track progress towards the different NCQG elements explored in Chapter 3. .

At the same time, the possible wider scope of the NCQG presents challenges, especially in capturing quantitative or qualitative information on progress in areas mentioned earlier. Measuring the environmental impact of specific climate finance or policy interventions is difficult, as there is no widely accepted method to accurately quantify GHG reductions per dollar spent (Eltokhy et al., 2021^[122]). Moreover, data availability on these elements often remains very limited (see section 4.2). For instance, (Martini et al., 2023^[110]) illustrates that assessing the extent of green public procurement (GPP) uptake is challenging due to the lack of mandatory across countries. Similarly, as noted in section 3.4, although practices like climate budget tagging have become more common, obtaining robust and comparable data on domestic climate expenditure is still difficult. This is partly because public financial management systems, often structured by sector, struggle to accommodate cross sectoral issues like climate (Allan et al., 2019^[123]). Finally, assessments by third-party experts and international organisations generally rely on government-provided data through predominantly public channels as part of their budget documentation. However, this data tends to vary in terms of its level of detail, timeframes, and reference points, making cross-country comparisons challenging (Eltokhy et al., 2021^[122]).

Despite these challenges, including such indicators in the NCQG could encourage gradual improvements in transparency data availability over time. Initially, NCQG tracking could capture information on those elements for which information is relatively readily available (e.g., volumes of public finance and private finance mobilised by public finance interventions), while gradually expanding towards for a more comprehensive assessment. The future review of the Paris Agreement's ETF CTFs may offer further opportunities for capturing new information relevant for the NCQG. However, it is important to note that the NCQG will need to rely on a range of information sources beyond the ETF.

Lessons can be drawn from the framework developed for the Kunming-Montreal Global Biodiversity Framework, which outlines twenty-three action-oriented global targets to combat biodiversity loss to be achieved by 2030. Each target is accompanied by guidance notes detailing indicators for effective progress monitoring. These notes also offer a series of guiding questions to aid countries in setting their related national targets, along with additional resources that can help the target's implementation. For instance, target 2, "restore 30% of all degraded ecosystems," is supplemented with a list of headline and complementary indicators, which are measurable and directly related to the target, such as "annual tropical primary tree cover loss" and "percentage of cropped landscapes with at least 10 per cent natural land." This approach ensures that the goals of the framework are actionable, and progress is efficiently tracked (Convention on Biological Diversity, 2024^[124]).

Table 4.1. Selection of possible indicators for different NCQG elements

Cluster	Element	Examples of possible headline indicator for measuring progress	Type of indicator	Availability of information and trackability
Cluster 1 – International support for climate action	Bilateral public finance	Volume of bilateral public climate finance provided by contributing Parties	Quantitative monetary	Information mostly available through Paris Agreement ETF. However, only developed country parties are <i>required</i> to report. Other Parties are <i>requested</i> to report.
	Multilateral public finance	Volume of multilateral public climate finance outflows provided by multilateral institutions [and attributed to contributing Parties]	Quantitative monetary	Information on multilateral outflows not available under the ETF, but mostly available through OECD DAC statistics.
		Volume of multilateral public climate finance inflows provided by contributing Parties.	Quantitative monetary	Information on inflows to multilateral institutions mostly available through Paris Agreement ETF. However, only developed country parties are <i>required</i> to report. Other Parties are <i>requested</i> to report. Important to clearly separate information on multilateral inflows from information on multilateral outflows to avoid double-counting.
	Non-commercial finance contributions from non-Party stakeholders	Volume of non-commercial finance contributed by non-Party stakeholders	Quantitative monetary	Would require significant efforts. Currently there is no individual dataset that collects this information. Non-Party stakeholders do not have reporting obligations under the Paris Agreement.
	Support for capacity building and technology transfer by Parties providing support and, potentially, non-Party stakeholders	Number of Capacity Building and Technology Transfer Initiatives Supported and/or associated financial contribution.	Quantitative non-monetary	Information mostly available through Paris Agreement ETF. However, only developed country parties are <i>required</i> to report. Other Parties are <i>requested</i> to report.
Cluster 2 – Private finance mobilised and catalysed for climate action	Private finance mobilised by public finance interventions	Volume of public climate finance mobilised by public finance interventions	Quantitative monetary	Information mostly available from the OECD DAC and increasingly through Paris Agreement ETF. However, under the UNFCCC, only developed country parties are <i>required</i> to report. Other Parties are <i>requested</i> to report.
	Private finance catalysed by other public interventions	Aggregate indicators on volumes of public climate finance catalysed and/or private sector development	Quantitative monetary and/or non-monetary	Information on private climate finance catalysed by policy interventions may be available through Paris Agreement ETF. However, under the UNFCCC, only developed country parties are <i>required</i> to report. Moreover, further work on methodological development for measuring catalysation of public policy interventions will be required. Comprehensive assessment of private finance catalysed would likely require compilation of data from a wide variety of sources, including non-official ones. Unlikely to be able to provide a complete and comprehensive picture in the near future.
Cluster 3 - Domestic efforts by all Parties	Incentives for public budgeting and spending	Volume of domestic public climate spending; percentage of climate-related spending in total public expenditure; number and effectiveness of financial	Qualitative and/or quantitative non-monetary	Information may be available through national budget documents and reports to international frameworks like the UNFCCC. Tracking may vary by country depending on transparency and reporting mechanisms.

Cluster	Element	Examples of possible headline indicator for measuring progress	Type of indicator	Availability of information and trackability
		strategies for implementing climate commitments.		
	Incentives for strengthened enabling environments climate investments	Number of regulatory measures implemented to facilitate private sector investments; level of financial transparency and risk disclosure in climate investments; extent of progress on fossil fuel subsidy reform.	Qualitative and/or quantitative non-monetary	Information on regulatory changes can be tracked through national legal and policy documents. International organisations and financial institutions may provide additional data and assessments.
	Incentives for the use of innovative instruments to raise further resources domestically	Volume of green, social, and sustainability bonds issues; adoption rate of carbon pricing initiatives; development and adoption of standards and regulations for innovative instruments.	Qualitative and/or quantitative non-monetary	Information could potentially be available through national financial market regulators, bond markets, and international financial databases.

Source: Authors.

4.2. Data sources for tracking progress towards the NCQG

The ETF is an important source of information and possible starting point for tracking progress towards the NCQG. It covers four key climate finance components crucial for monitoring progress towards the NCQG: financial support provided through bilateral, regional, and other channels; financial support provided through multilateral channels; financial support mobilised through public interventions; and financial support received. Table 4.2 provides an overview of reporting rules for each one of these finance components, as well as a short commentary on key considerations and informational gaps in relation to each component. It is important to note that the reporting requirements are however different with reporting being mandatory (“shall”) and not mandatory (“should”). Such difference in reporting requirements is relevant for considerations on data availability. Importantly, this section only discusses data sources, and does not discuss what entity or entities, if any, could be in charge of compiling different data sources in a comprehensive tracking exercise.

Table 4.2. Overview of reporting requirements under the Paris Agreement ETF

Reporting element	Requested (“should”) or required (“shall”)?	Reporting format	Information to be provided (non-exhaustive list)	Challenges, gaps, and further considerations in the context of tracking progress towards the NCQG
Information on financial support provided: Bilateral, regional, and other channels (Annex MPGs V.C)	Required for developed country Parties. Requested for Other Parties that provide support	Common tabular format	Climate-specific amount; recipient; status (disbursed, committed); financial instrument; climate theme (adaptation, mitigation, cross-cutting); sector and sub-sector.	Significant inconsistencies in terms of methodologies, categorisations, and definitions adopted across countries (see Annex B in (OECD, 2020 ^[125])). For example, variations occur in currency conversion, point of measurement (commitment and disbursement) and estimation of climate-specific amounts.
Information on financial support provided: Multilateral channels (Annex MPGs V.C)	Required for developed country Parties. Requested for Other Parties that provide support	Common tabular format	Core-general or climate specific amount; inflows and/or outflows; status (disbursed, committed); financial instrument; climate theme (adaptation, mitigation, cross-cutting); sector and sub-sector.	Specific field will allow for the reporting of <i>outflows</i> . However, data on outflows are not available as this information is ultimately held by multilateral banks or agencies which do not report to the UNFCCC. Therefore, data will most likely focus on <i>inflows</i> .
Information on financial support provided and mobilised: Information on finance mobilised through public interventions (Annex MPGs V.C)	Required for developed country Parties. Requested for Other Parties that provide support	Textual and/or common tabular format	Climate-specific amount; amount of resources used to mobilise the support; type of public intervention used; recipient; sector and sub-sector.	Data will in principle cover private climate finance mobilised by both public finance and policy interventions. Given the challenges in estimating private climate finance mobilised by policy interventions, there may be inconsistencies across developed countries’ reporting. Data on private climate finance mobilised by multilateral institutions will not be available under the UNFCCC ETF.
Information on financial support received by developing country Parties under Article 9 of the Paris Agreement (Annex MPGs VI.D)	Requested for developing country Parties	Common tabular format	Climate-specific amount; recipient entity; implementing entity; type of support; sector and sub-sector.	For many Parties, it will be the first-time reporting on climate finance information, and this reporting may be heterogeneous and not comprehensive at first.

Source: Adapted and expanded from (Falduto and Ellis, 2019^[126]).

Depending on the final scope of the NCQG, it is likely that information from sources beyond the ETF will be required. Examples of data sources that could be relevant are presented below, noting that many further data sources could be considered. The intention here to illustrate the range of potential data and information points that could contribute to tracking progress towards the NCQG in a comprehensive manner, but also the complexity of relying on a multitude of sources.

Importantly, apart from statistics relating to development finance, the majority of these data sources cover developed country Parties much more comprehensively than developing country Parties. Reporting on information related to domestic efforts in a more systematic way will likely represent a non-negligible additional burden for many Parties, including developing country Parties that face significant capacity challenges. These countries will necessitate relevant support to enhance their reporting efforts.

- **OECD DAC database on bilateral and multilateral development finance**, a repository that systematically records international aid, grants, and financial flows from DAC members, multilateral institutions, and some non-DAC countries to developing countries. This database captures various types of financial flows, including Official Development Assistance (ODA), Other Official Flows (OOF), private flows at market terms, and grants by NGOs. The OECD DAC's methodology ensures the data's relevance, accuracy, and comparability, making it an essential tool for understanding international development finance dynamics. The OECD DAC database has potential to inform the monitoring and progress towards the NCQG in the areas of:
 - **International public finance (cluster 1).** The DAC database includes data on bilateral and multilateral climate-related development finance provided by DAC members and multilateral organisations including MDBs and multilateral climate funds. Importantly, data on multilateral public finance outflows, reported directly from multilateral channels to the OECD DAC is complementary to the multilateral inflows data to be provided by Parties to the UNFCCC and Paris Agreement, and essential in tracking progress assessments. Such data on multilateral outflows has been used in OECD assessments of progress towards the USD 100 billion goal.
 - **Private climate finance mobilised (cluster 2).** Under a high-level mandate from development ministers, the OECD DAC has developed an international standard for measuring the amounts mobilised from the private sector by official development finance interventions, including for climate. The scope of the OECD DAC methodology for measuring the amounts mobilised from the private sector covers the main mechanisms used by development finance providers, including syndicated loans, guarantees, credit lines, direct investment in companies or special purpose vehicles (SPVs), shares in collective investment vehicles (CIVs) and simple co-financing arrangements, as well as technical assistance in some cases. OECD DAC data on private finance mobilised has been used in OECD assessments of progress towards the USD 100 billion goal.
- **Total Official Support for Sustainable Development (TOSSD)**, an international standard for measuring the full array of resources to promote sustainable development in developing countries, including for climate action. Agreed by a large group of governments and organisations, TOSSD monitors all official finance flows to developing countries for their sustainable development (Pillar I), contributions to International Public Goods (Pillar II), as well as private resources mobilised through official means. In this context, TOSSD engages with public finance providers globally, including in Africa, Asia, and Latin America. The latest TOSSD dataset (2022) hosts activities from 119 bilateral and multilateral providers. With the number of reporters growing every year, TOSSD has served as a data source for the SDG indicator 17.3.1: Additional financial resources mobilised for developing countries from multiple sources. When it comes to the recipients of support under Pillar I, some high-income countries that are no longer eligible for ODA finance but still receive international support remain on the list of TOSSD recipients. Any country can also request to be included, thereby allowing to recognise the various contexts in which countries find themselves,

while building a more complete and relevant statistical system to inform international processes. Since January 2024, the TOSSD standard is governed by the International Forum on TOSSD (IFT) with a balanced representation of provider and recipient countries (including dual provider/recipients) and international organisations. Civil society organisations have a permanent observer seat in all IFT bodies. Given its unique scope and coverage, TOSSD could inform the monitoring of progress towards the NCQG, particularly in the areas of:

- **International Public finance (cluster 1).** TOSSD collects statistics from a wide variety of bilateral providers and multilateral organisations. Work is being conducted to expand the database to South-South Cooperation (SSC) providers. The data encompass resources for sustainable development and climate action in the form of grants, concessional and non-concessional loans, equity investments, other instruments, as well as technical assistance and research.
- **Private finance mobilised (cluster 2).** TOSSD also includes data on private finance for sustainable development and climate mobilised by official providers, both bilateral and multilateral. TOSSD measures the mobilisation effect of all available financial instruments and technical assistance used by providers of international public finance.
- **Domestic efforts by all Parties (cluster 3).** As part of its Pillar II, TOSSD offers a new consolidated dataset on domestic spending in support of climate change mitigation and other environmental objectives. The data are reported by both traditional and new providers. The coverage of these data has been increasing and further work seeks to enhance TOSSD data on climate by national development banks in provider and recipient countries.
- **Annual reports of the multilateral climate funds and joint reports of the MDBs.** A group of MDBs releases annually a joint report presenting their climate finance figures. Such figures are compiled based on a joint MDB climate finance methodology (EIB, 2023^[127]). These reports present public source of information on MDB outflows; however, the information is presented at semi-aggregate levels, and underlying activity-level information is not publicly available. Similarly, the multilateral climate funds prepare annual reports to the COPs that provide detailed information on their activities, including project-level information outflows (see e.g. (UNFCCC, 2023^[128])). While most MDBs and climate funds provide information about individual projects on their respective websites, these are not consolidated in activity-level database formats comparable to the way in which such data can be accessed in OECD DAC statistics. Reports and websites from MDBs and climate funds can nevertheless contribute assessments of the multilateral climate finance element of cluster 1, and private finance under cluster 2.
- **OECD Export Credit Group (ECG) database** includes data compiled and published by the OECD concerning the activities and operations related to export credits. The statistics gathered by the OECD Export Credit Group include information on the volumes, terms, and conditions of export credits provided by member countries, as well as data on claims, recoveries, and other relevant financial indicators. Such data has been used in OECD assessments of progress towards the USD 100 billion goal. Depending on where export credits will be accounted for in the context of the NCQG, the ECG database could provide useful information for clusters 1 and 2.
- **National account data based on the System of National Accounts (SNA) framework:** The SNA is framework developed jointly by the International Monetary Fund (IMF), the World Bank, the OECD and the European Union (EU) for compiling economic activity measurements, incorporating internationally agreed concepts, definitions, classifications, and accounting rules (UNSD, 2024^[129]). It presents guidelines to measuring gross domestic product (GDP) and its constituent parts, as well as final consumption aggregates, income, savings, and employment (UNSD, 2024^[129]). While the SNA is not a database, it underpins the creation of national and international economic databases. Various organisations and national statistical offices implement

the SNA framework to collect, compile, and publish economic statistics, resulting in databases that contain detailed national accounts data.

- For example, the United Nations Statistics Division (UNSD) through its National Accounts Questionnaire (NAQ) based on the SNA framework, annually collects national accounts data from Member States and publishes it in its “National Accounts Statistics: Main Aggregates and Detailed Tables” (UNSD, 2024^[130]) (UNSD, 2024^[131]). The sixty-fourth issue released in 2023, presents data on 208 countries and areas for the reporting years 2011 to 2022 (UNSD, 2024^[131]).
- The OECD National Accounts Statistics database includes annual and quarterly data for OECD countries and selected non-OECD countries (India, South Africa, Brazil, Indonesia, Russia). It is based on the SNA 2008 framework and it includes measures of, *inter alia*, general government accounts, financial accounts flows and stocks, and central government debt (OECD, 2023^[132]).
- Finally, Eurostat, the statistical office of the European Union collects and regularly publishes SNA-aligned data from EU Member States, EFTA countries, and EU candidate countries to generate aggregates for the EU and euro area (European Commission, 2024^[133]).

Overall, national account data and SNA compliant reporting, can be potentially useful to assess progress towards some elements included in Cluster 3. For instance, simplified accounts for general government provide an overview of budget appropriations. Governments do report more detailed data on “Environmental Protection Expenditure Accounts”, including for activities relating to climate action¹⁶; while reported and presented separately, such data are compatible with the boundaries and definitions used within the SNA. Within the SNA, further data on different institutional sector, specifically for corporations and financial entities can help understand the impact of regulatory measures on private sector investments (Cluster 3). Here, recent developments under the Advisory Expert Group on National Accounts (which involves the UN, the IMF, the OECD, the World Bank and the EU) includes the provision of new guidance on sustainable finance that will provide the basis for countries to start compiling official estimates of green and ESG debt securities, shares, loans and investment funds for the national accounts and balance of payments.¹⁷

- **OECD PINE (Policy Instruments for the Environment) database**, compiles data on public policy instruments for environmental protection and natural resource management across 130 countries. The database covers five types of policy instruments: deposit refunds, environmentally beneficial subsidies and payments, taxes and fees, tradeable permits and offsets, and voluntary approaches. For each instrument it provides information on when it was introduced, what it applies to, its geographical coverage, the environmental domains it addresses, the industries concerned, its revenues, costs and rates, as well as the exemptions granted. Finally, the PINE database also provides in-depth coverage of environmentally related tax-revenue, including revenue from energy products, transport services, pollution emission and resource management. which represents about half of all instruments in the database. The PINE database could potentially be useful in tracking progress towards some elements included in Cluster 3. For example, it could provide insights on the adoption and impact of carbon taxes in various countries, the effectiveness of domestic resource mobilisation through fiscal instruments, and government subsidies or incentives for private climate-related investments (OECD, 2023^[134]).
- **Several commercial databases** compile project-level or company level data on investments and finance. Examples include Bloomberg, IJGlobal, LSEG, Moody's, Morningstar, or S&P (Jachnik,

¹⁶ See for instance environmental protection expenditure data and accounts as available from [the IMF](#) and the [OECD](#)

¹⁷ See the sustainable finance item at <https://unstats.un.org/unsd/nationalaccount/aeg/2024/M25/M25.asp>

Mirabile and Dobrinevski, 2019^[135]; CPI, 2023^[3]). Such databases typically cover different types of investments, sectors, and physical or financial assets. Such data sources are widely used in the financial sector itself. They also contribute to informing a range of investment- and finance-related analyses by intergovernmental organisations, academic institutions, and civil society entities, including for climate-relevant sectors or subsectors with well-defined boundaries and thus relatively easy to separate out, such as renewable energy and fossil fuels. Generally, such data on private actors has larger gaps for developing countries compared to developed countries. Certain types of actors are less well covered, such as small- and medium-sized enterprises and unlisted companies more generally. There are also challenges in terms of inconsistent definitions across data providers (Boffo and Patalano, 2020^[136]; Noels and Jachnik, 2022^[137]). With these characteristics in mind, commercial data sources could be considered as input to aggregate-level indicators on catalysed private finance as suggested under Cluster 2, as well as for informing qualitative considerations relating to the proposed Chapeau providing broader context.

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