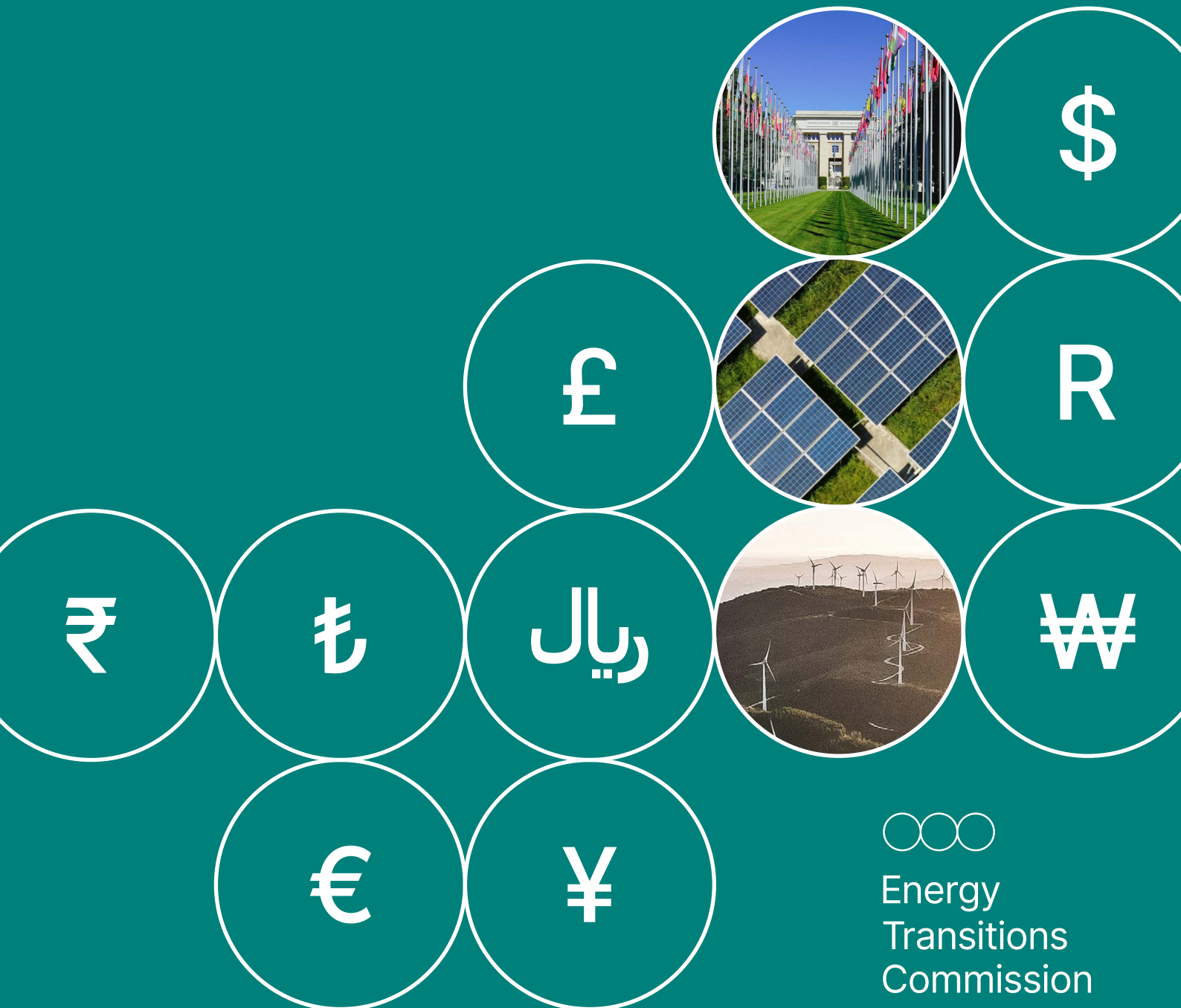


NDCs, NCQG, and Financing the Transition: Unlocking Flows for a Net-Zero Future

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The Energy Transitions Commission (ETC) is a global coalition of leaders from across the energy landscape committed to achieving net-zero emissions by mid-century, in line with the Paris climate objective of limiting global warming to well below 2°C and ideally to 1.5°C.

Our Commissioners come from a range of organisations – energy producers, energy-intensive industries, technology providers, finance players and environmental NGOs – which operate across developed and developing countries and play different roles in the energy transition. This diversity of viewpoints informs our work: our analyses are developed with a systems perspective through extensive exchanges with experts and practitioners. The ETC is chaired by Lord Adair Turner who works with the ETC team, led by Ita Kettleborough (Director), and Mike Hemsley (Deputy Director). The lead author of this briefing note is Elizabeth Lam with support from Hannah Audino.

This briefing note, *NDCs, NCQG, and Financing the Transition: Unlocking Flows For a Net-Zero Future*, aims to offer clarity on climate finance debates ahead of COP29 and COP30 where two major international finance mechanisms are on the agenda: the New Collective Quantified Goal and the next round of Nationally Determined Contributions. This work builds on previous ETC analyses and reports, particularly the 2023 *Financing the Transition* report and the 2024 *Credible Contributions (NDCs)* insights briefing, and other expert research such as Songwe V, Stern N, Bhattacharya A (2022), *Finance for climate action: Scaling up investment for climate and development*.

The ETC team would like to thank the ETC members, member experts and the ETC's broader network of external experts for their active participation in developing the analysis underpinning this briefing note.

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Very large flows of finance will be needed to deal with climate change. Huge investments are needed for new assets which can produce and use energy in a low and eventually zero carbon fashion, reducing GHG emissions and thus mitigating the future extent of global warming. Large investments are also required to adapt to climate change, for instance, in the form of better coastal and flood defences. And some countries will need to spend money to offset the human welfare consequences of the loss and damage which climate change has already produced.

How much “climate finance” is therefore needed, and how much of this finance should flow from developed to developing countries has been an area of intense debate since COP15 in Copenhagen, at which developed countries pledged to provide \$100 billion a year of climate finance by 2020.

But these debates are often characterised by lack of clarity about the different types of climate finance which are required, and about the different sources of finance – private or public, domestic or international, equity or debt or grant – which could or should fund these different financing needs.

One important driver of these debates is the commitment, originally made at the Paris climate conference, to agree a “*new collective quantified goal*” (NCQG) for climate finance to replace the original COP15 commitment. Issues relating to climate finance are also relevant to discussions about how to improve the quality and impact of the “*nationally determined contributions*” (NDCs) which countries submit under the terms of the Paris Climate Agreement: indeed several countries have made their NDCs conditional on some element of climate finance.¹

This brief therefore seeks to clarify the role which the NCQG and NDCs could and should play in unleashing the different sorts of finance required. It builds on two previous ETC reports which covered:

- *Financing the transition: How to make the money flow for a zero carbon economy* (2023).²
- *Credible contributions: Bolder plans for higher climate ambition in the next round of NDCs* (2024).

We set out our analysis and conclusions in four sections.

1. The background: NDCs and the NCQG.
2. Quantifying the different types of finance required.
3. Sources of finance for the different types: policies required to unleash them.
4. Key priorities for the NCQG debate, and the role of NDCs in supporting financial flows.

Exhibit 1.1 sets out the summary of our conclusions.

¹ WRI (2024), *What Could the New Climate Finance Goal Look Like? 7 Elements Under Negotiation*.

² This briefing note uses figures from the 2023 report and therefore reflects estimates from 2023.

Key priorities based on ongoing debates and analysis

Priorities for the NCQG (Section 4.1):	Priorities for the next round of NDCs (Section 4.2):
<p>The ETC's primary focus is on the technologies, investments and policies which can reduce global emissions as fast as possible and thus mitigate further global warming. We do not therefore express a point of view on the scale of transfers which high income countries should make to support adaptation, resilience and loss and damage.</p> <p>However, we believe that the NCQG conclusions will have the best impact on global mitigation efforts if they include:</p> <ul style="list-style-type: none"> • Clarity on the types of finance flows required and what is covered by any NCQG commitments. • Strong focus on the very large scale financial flows required to support mitigation and adaptation in middle and low income countries. • Expansion of the definition of contributing countries to include at least China and high income oil and gas producers such as Saudi Arabia, United Arab Emirates and Qatar. • Strong support for new sources of funds to support climate. 	<p>Most climate finance will come from private actors. A strong NDC, combined with detailed sectoral policies and targets, can act as actionable investment plans. In order to make NDCs investable, the ETC recommends the next round of commitments:</p> <ul style="list-style-type: none"> • Reflect existing technology progress and policy commitments by delivering NDCs that triple ambition at the global level. • Define strong links between targets and supporting policy, acting as comprehensive roadmaps for implementation. • Contain absolute or equivalent emissions targets, sector and greenhouse-gas-specific targets, and clear bounds of conditional targets for measurability and comparability. • Clearly outline the business case for reduction targets and policies needed to drive NDC-aligned investment.



1. Climate targets and climate finance; NDCs and the NCQG

The Paris Agreement at COP21 (2015) was a pivotal step forward in global agreement on actions required to address climate change. It introduced a new mechanism to encourage and require national action to reduce emissions, and a commitment to define the extent to which higher income countries should support lower income countries in both mitigating climate change and adapting to it.

1.1 A mechanism to drive emission reductions – Nationally Determined Contributions

The Paris Agreement established a “Pledge, Review and Ratchet” approach. Under this approach, countries agreed to communicate and undertake “nationally determined contributions” (NDCs) in line with the goals of the Paris Agreement, accounting for national circumstances, capabilities and priorities. Countries are required to submit new and ratcheted NDCs every five years. Collectively, these NDCs should provide a clear direction for action, and help track global progress in meeting the long-term goals of the agreement. All countries must submit new NDCs in 2025, setting new, more ambitious emissions reduction targets for 2035.³

As the ETC described in our recent report on *Credible Contributions*, the quality and consistency of NDCs submitted so far varies greatly. One area in which improvement would be valuable, would be more detailed and robust specification of the scale of finance needed to deliver the emissions reductions described, and the assumed balance of different sources of finance (private versus public, domestic versus international) which could fund the required investment.

1.2 Defining the role of international climate finance – the New Collective Quantified Goal

Article 9 of the Paris Agreement says that “developed country parties shall provide financial resources to assist developing country parties with respect to both mitigation and adaptation” and paragraph 53 of Decision 1 stated that the conference “decides to set a new collective quantified goal from a floor of \$100 billion per year, taking into account the needs and priorities of developing countries, prior to 2025.”

These commitments built on the COP15 commitment by developed economy countries to provide \$100 billion per annum of some form of climate finance, and on further decisions at COP16 and COP19. And they led onto a series of debates at subsequent COPs after Paris, which may result in conclusions at COP29 in Baku [Exhibit 1.2]. One important development in this series of debates, was the agreement at COP27 in Sharm el Sheik to establish a Loss and Damage Fund to assist vulnerable low income countries offset the welfare harm which climate change has already produced.⁴

But with the deadline for agreeing the NCQG approaching, there is still major disagreement about what it should cover, even before any agreement on specific quantified amounts. For example:

- Brazil, Zambia, Samoa and Honduras call for the NCQG to include funding for loss and damage,⁵ while some high income countries argue loss and damage is covered in separate negotiations.⁶
- Meanwhile, the EU, Japan, USA and Australia suggest the pool of contributors should widen from just 24 “Annex I” countries,⁷ to include countries that are also able to pay and have significant historical emissions, which would include, for example, China and Saudi Arabia in the donor mix.⁸

³ ETC (2024), *Credible Contributions: Bolder Plans for Higher Climate Ambition in the Next Round of NDCs*.

⁴ The Loss & Damage Collaboration (2024), *What do the submissions to inform the NCQG workplan tell us about support for a sub goal on loss and damage under the NCQG?*

⁵ The Loss & Damage Collaboration (2024), *What do the submissions to inform the NCQG workplan tell us about support for a sub goal on loss and damage under the NCQG?*

⁶ WRI (2024), *What Could the New Climate Finance Goal Look Like? 7 Elements Under Negotiation*.

⁷ “Annex I Parties include the industrialised countries that were members of the OECD in 1992, plus countries with economies in transition (the EIT Parties), including the Russian Federation, the Baltic States, and several Central and Eastern European States.” See UNFCCC (2024), *Parties and Observers*.

⁸ The Loss & Damage Collaboration (2024), *What do the submissions to inform the NCQG workplan tell us about support for a sub goal on loss and damage under the NCQG?*

- The 2024 Lilongwe Declaration, supported by ministers of the 45 Least Developed Countries (LDC), states that the NCQG should clarify and define “climate finance”, and any “climate finance” pledged must be new and additional to existing development finance and only include concessional finance.⁹ However, there is debate about the plausibility of achieving the scale of finance required for a just transition with only concessional/grant payments.

Exhibit 1.3 sets out the full range of issues which are still to be determined, compared with the initial commitments made at COP15 in 2009.

Timeline of commitments and debates on climate finance (2009–2024)

Exhibit 1.2

Related to \$100 billion per year target and NCQG

2009	COP15 Copenhagen		Developed countries agreed on a climate finance goal to deliver \$100 billion per year by 2020 to support developing countries with their climate mitigation and adaptation efforts.
2010	COP16 Cancun		The Green Climate Fund was established to channel a significant portion of the \$100 billion commitment to developing countries.
2015	COP21 Paris		The Paris Agreement reaffirmed the \$100 billion climate finance goal and extended it through to 2025.
2018	COP24 Katowice		The Katowice climate package was adopted to allow developing countries to transparently track finance commitments.
2019	COP25 Madrid		Reports indicated actual finance flows fell short of the \$100 billion target. It was unclear which flows were calculated and the balance between private versus public finance, loans versus grants.
2021	COP26 Glasgow		It was formally acknowledged that the \$100 billion was not met by 2020. Countries agreed a new plan to mobilise this money by 2023. Parties also began formal discussions on the NCQG to replace the \$100 billion in 2025, and an ad hoc workplan was developed for 2022–2024.
2022	COP27 Sharm El Sheikh		The \$100 billion target was met for the first time. Technical discussions around the NCQG took place. And a Loss and Damage Fund was established to assist vulnerable countries affected by climate change.
2023	COP28 UAE		\$100 billion target was again delivered. Technical negotiations continued about the terms and coverage of the NCQG. A global stocktake was conducted, showing that significant gaps remained in climate finance delivery. Focus shifted towards reforming funding mechanisms.
2024	COP29 Baku		The NCQG is reaching final deliberations and is due to be agreed by 2025.

⁹ LDC (2024), *The 2024 Lilongwe Declaration on Climate Change by the Ministers of the Least Developed Countries*.

Comparison of \$100 billion per year climate goal and NCQG

Exhibit 1.3

Based on ongoing deliberations around the NCQG

	\$100 billion per year target (2009, COP15)	What will need to be agreed in the NCQG?
1. Quantum	\$100 billion per year by 2020 to address the climate needs of developing countries.	The “quantum” or amount of money pledged per year to support climate action in developing countries is to be rooted in the needs and priorities of developing countries. The Paris Agreement, adopted in 2015, set the floor at \$100 billion per year.
2. Donor base	Paid by 24 countries , original OECD members in 1992 when the UNFCCC was signed, to developing countries.	Which countries will pay and which will receive payment. The distribution of countries with the ability to pay has changed significantly since the \$100 billion target was agreed.
3. Timeframe	10-year period initially (2010–2020) , then extended at COP21 (2015) through to 2025 when it will be replaced by the NCQG.	Timeframe , which will determine the size of the goal and how to monitor progress. The goal could be set on a 5–10 year timeframe with revision cycles.
4. Target coverage	The target covers mitigation and adaptation funding , for solutions to reduce emissions and adapt and build resilience to the changing climate.	Whether the target will cover all: climate mitigation, adaptation and loss and damage funding. Finance is required to compensate for loss and damages caused by climate change, especially in developing countries for a just transition.
5. Sources of funding	Parties agreed funding could come from a wide variety of sources including, public, private, bilateral and multilateral, etc.	Type of finance flows , including the source, but also the concessionality, accessibility, predictability and effectiveness of the financial flows and the mechanisms and institutions for deployment.
6. Reporting	At COP19 (2013) Parties specified activity to better scale and report on climate finance but there were no agreed-upon indicators to track progress by 2020 and through to 2025.	How to effectively measure progress and accountability , learning from the challenges with tracking the prior \$100 billion target.
7. Wider financial system alignment		Whether to reference Article 2.1c of the Paris Agreement , which holistically aims to align financial systems with sustainable development and climate goals, including funding mitigation and adaptation, and reducing carbon-intensive spending.

Source: UNFCCC (2024), *Background note on the USD 100 billion goal in the context of UNFCCC process, in relation to advancing on SDG indicator 13.a.1*; OECD (2024), *The New Collective Quantified Goal on climate finance*; WRI (2024), *What Could the New Climate Finance Goal Look Like? 7 Elements Under Negotiation*; Center for Global Development (2024), *Has the \$100 Billion Climate Goal Been Reached?*; IIGCC (2024), *Bonn talks underline crucial role of private capital ahead of COP29*; WRI (2024), *What Is the Paris Agreement’s Article 2.1(c) on Climate Finance, and Why Does it Matter? Key Questions, Answered*.

2. Types of finance and estimates of required quantities

Analysis of the “climate finance” challenge and discussion about possible sources of finance must start with clarity about the different types of expenditure which will be required to mitigate the scale of future climate change, to adapt to climate change, and to deal with the already inevitable loss and damage. In particular, it is important to distinguish between:

- **Capital investment for mitigation.** This is the investment required to build the assets needed to produce and use energy in a low and zero carbon fashion. This investment delivers a rate of return to investors, and will be primarily funded by private investment in both developed and middle income countries. But public finance and Multilateral Development Banks (MDBs) will also need to play an important role in middle and lower income countries, including via risk mitigation actions that can unlock private financial flows (for instance in a blended finance form).
- **Other payments (including concessional/grant) to achieve mitigation.** This category covers payments which may be required to ensure rapid emissions reductions, but which do not necessarily or primarily involve investment in a new asset delivering a rate of return to investors. They could include, for instance, payments to induce existing owners of coal power plants to close them down before the end of existing offtake agreements and payments to create incentives to cease deforestation. Given the nature of these payments, they are unlikely to occur unless some provider is willing to provide some of the finance on a concessional or grant basis.
- **Investment in adaptation,** such as new coastal or flood defences or drought-proofing crops. These typically do entail investment in new assets, but often do not deliver any immediate private financial return, with the benefit instead accruing in the form of avoided business costs or reduced harm to society. They will therefore typically not be supported by private finance alone but will require a significant role for public finance (including to de-risk up-front investments) and government spending and borrowing. In middle income countries, long-term and low-cost multilateral debt finance may play a crucial role, and for low income countries grant finance may be essential.
- **Funding to cover “loss and damage”.** There is a moral case for higher income countries to help low income countries cope with the loss and damage which climate change has already produced, given that those lower income countries have played almost no role in creating the climate change affect. Given the lower debt capacity of the relevant countries, a significant proportion of this type of finance will have to be in grant form.

Exhibit 2.1, which is adapted from the 2022 report of the International High-Level Expert Group on Climate Finance, illustrates the matrix which links the types of finance required to the potential sources. In the following subsections, we set out estimates of the scale of finance required for each of these different types, with the overall picture summarised in Exhibit 2.2:

- **Capital investment for mitigation.** In our 2023 report on *Financing the Transition*, the ETC estimated that \$3.5 trillion per annum is required for climate mitigation investment between now and 2050. This will be offset by an average annual reduction of \$0.5 trillion in fossil fuel investment, to give a net figure of \$3 trillion per annum on average by 2050.
- **Other payments to achieve mitigation.** In our 2023 report we also estimated that a further \$300 billion per annum might be needed between now and 2030 to support mitigation actions which do not typically deliver a financial return to investors, and which would therefore require a significant role for concessional debt or grant payments. Whether payments of this nature on this scale are feasible can however be questioned. If they are not, then progress on these objectives will only occur if there are technological developments which reduce the need for these payments.
- **Adaptation and loss and damage.** The ETC has not produced its own estimates of investments/payments required to support adaptation or to compensate for loss and damage. But the 2022 Songwe Stern report estimated that in middle and low-income countries, an additional \$250 billion for adaptation and \$400 billion for loss and damage is required per year between now and 2030.¹⁰

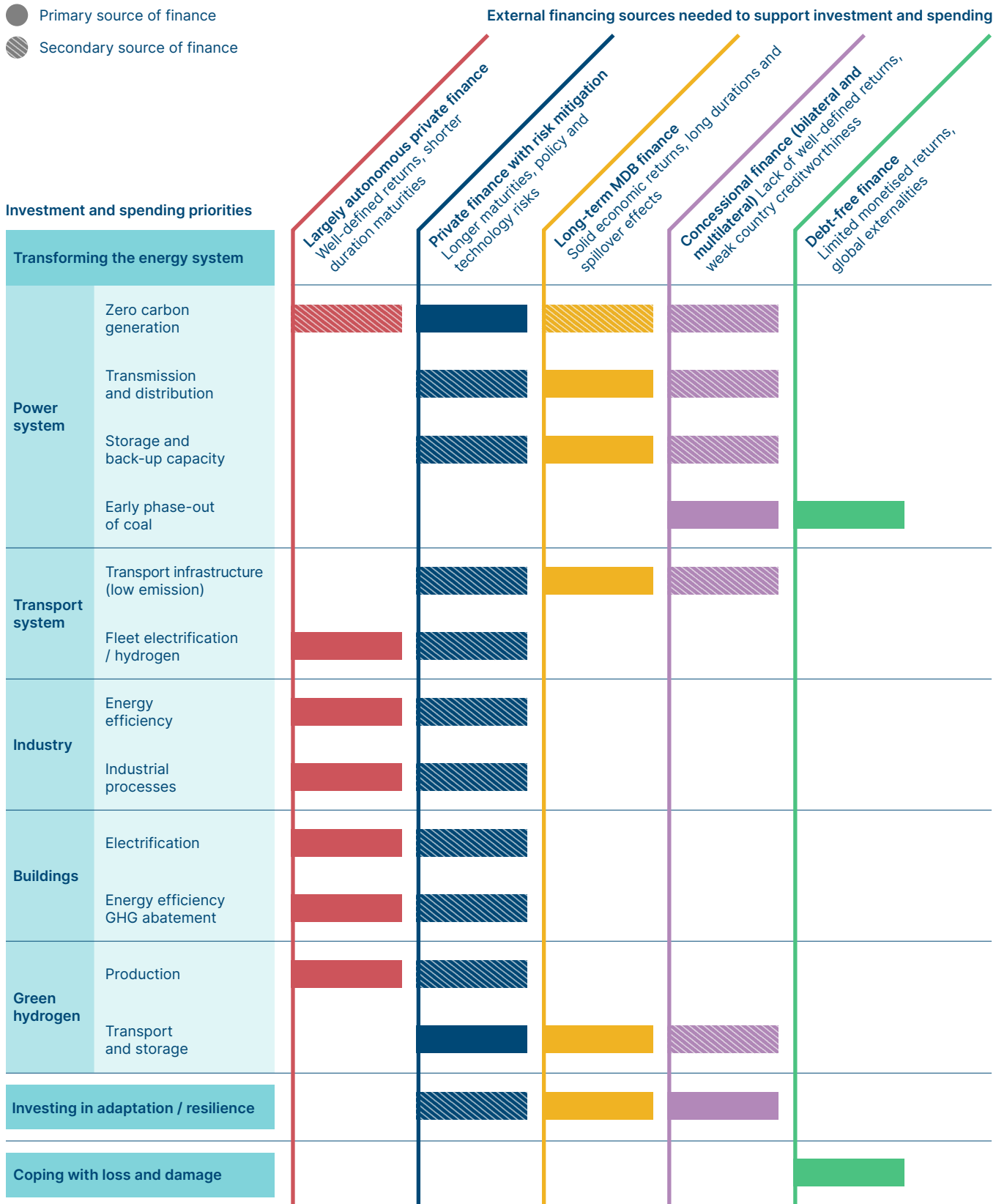
The following sub-sections 2.1–2.3 explore each of these needs in more depth. Section 3 then assesses the role that different sources of funding will need to play in supporting different types of investment or payment.

¹⁰ Songwe V, Stern N, Bhattacharya A (2022), *Finance for climate action: Scaling up investment for climate and development*.

External sources of climate finance and spending priorities

Exhibit 2.1

Across the energy transition, adaptation and resilience, and loss and damage



Note: Additional finance is required for investing in a just energy transition, investing in natural capital (agriculture, afforestation and conservation, biodiversity) and mitigating methane emissions from fossil fuels and waste.

Source: Adapted from Songwe V, Stern N, Bhattacharya A (2022), *Finance for climate action: Scaling up investment for climate and development*.

Estimated climate finance requirements for energy transition, adaptation and loss and damage

Exhibit 2.2

Average cost per year between now and 2030
\$ billion per year

Category	Total Costs (\$ billion per year in 2030)	Area of the World
Mitigation – Investment	2850	All countries
Mitigation – Concessional	300	Estimate for all middle and low income countries
Adaptation	250	Estimate for all middle and low income countries
Loss and Damage	400	Estimate for all middle and low income countries

Note: Mitigation investment numbers are 2026–2030 averages. Middle and low-income countries excludes China.

2.1 Capital investment to reduce emissions and mitigate further global warming

The ETC estimates that an average \$3.5 trillion capital investment per year will be required between now and 2050 in low-carbon energy, building, transport and industry technologies [Exhibit 2.3].¹¹ This will be offset by an average annual reduction of \$0.5 trillion in fossil fuel investment, to give a net figure of \$3 trillion per annum, equivalent to 1–1.5% of prospective global gross domestic product (GDP) over the next 30 years.¹²

The energy transition gathered significant momentum this decade. Technological developments have rapidly driven down costs and improved efficiency, while public policy support and national and industry commitments have made investing in low-carbon solutions either low/zero cost, or available at a small and manageable premium compared to fossil fuelled alternatives.¹³ In 2023, wind and solar was the cheapest source of new-build power generation in markets representing 82% of global power supply, and new renewable generation was cheaper than existing fossil-based generation in more than half of the world.¹⁴ In China and the US, the total cost of ownership of battery-electric sport utility vehicles and SUVs powered by internal combustion engines reached parity or near-parity.¹⁵

Altogether, these developments already imply that ambition in the next round of NDCs can be tripled compared to current NDCs (which were set in 2020), as set out in the ETC's recent report *Credible Contributions*.¹⁶ It also demonstrates that the energy transition is technically and economically within reach.

Unlocking this scale of investment will depend on well-designed policies and regulations being in place (explained further in Section 3). Rising interest rates in recent years have added to this challenge by increasing the cost of borrowing for low-carbon technologies, which are typically capital-intensive to build.¹⁷ However this trend is generally counterbalanced by rapidly declining technology costs and expanding supply chains.

¹¹ Figures referenced throughout the report are expressed in nominal prices, in line with the approach taken by others such as the IEA. They do not include the cost of finance. See ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

¹² The \$0.5 trillion is the difference between current investment in fossil fuels (\$0.8 trillion) and projected average annual investment in fossil fuels 2021–50 (\$0.3 trillion). Source: BloombergNEF (2022), *Counting Cash in Paris Aligned Pathways – analysis based on IEA Net Zero scenario*.

¹³ ETC (2024), *Credible Contributions: Bolder Plans for Higher Climate Ambition in the Next Round of NDCs*.

¹⁴ BloombergNEF (2023), *1H 2023 LCOE Update*.

¹⁵ US: TCO of BE-SUVs was 1% lower than that of ICE-SUVs, China: TCO of BE-SUVs was 2% higher than that of ICE-SUVs. BloombergNEF (2023), *Long-term Electric Vehicle Outlook*.

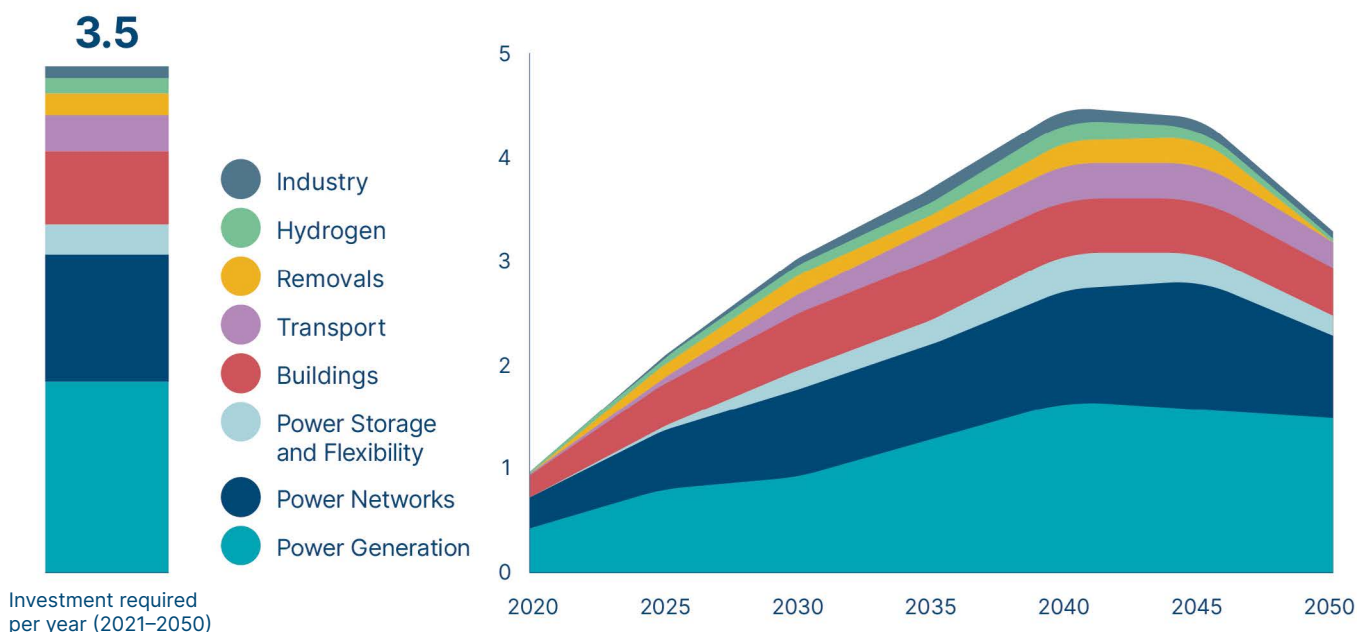
¹⁶ ETC (2024), *Credible Contributions: Bolder Plans for Higher Climate Ambition in the Next Round of NDCs*.

¹⁷ ETC (2024), *Overcoming Turbulence in the Offshore Wind Sector*.

Annual capital investment for the energy transition by 2050

Exhibit 2.3

Investment over time by sector
\$ trillion per year



Note: This total investment will be offset by an average annual reduction of \$0.5 trillion in fossil fuel investment, to give a net figure of \$3 trillion per annum.

Source: Systemiq analysis for the ETC (2023).

2.1.1 Low-carbon investment by sector

The vast majority of this investment is needed to decarbonise and expand the clean electricity system. This will not only help sectors already using electricity to decarbonise but also support the decarbonisation of road transport and buildings via electrification, and of heavy industry and transport through a mix of electrification, clean hydrogen, bioresources, and CCUS. Between 2021–2050, global average capital investments required per year are:

- **Power sector:** \$2.4 trillion per annum (70% of total investment) to dramatically increase renewable electricity generation and use, which underpins decarbonisation in almost all other sectors as well as the power networks which transport this electricity to users.
- **Buildings:** \$500 billion per annum (15%) for retrofits and low-carbon heating solutions.
- **Transport:** \$280 billion per annum (~5%) to decarbonise road vehicles, aviation, and shipping.¹⁸
- **Carbon removals:** \$130 billion per annum (~4%) for natural and engineered solutions.
- **Industry:** \$70 billion per annum (~2%) to decarbonise heavy industries including chemicals, steel, cement and aluminium.

Global spending across clean energy solutions is expected to reach \$2 trillion in 2024,¹⁹ but this figure hides severe regional and sectoral disparities. Spending across sectors varies considerably. Renewable electricity generation technology and electric vehicle investments have risen dramatically as costs have fallen, but in comparison, investment in grids, building retrofits, and electrifying heavy industry remains below where it needs to be in many regions.

In some sectors, such as buildings and harder-to-abate heavy industry and transport, some public finance support may be necessary to award grants or low-cost loans.²⁰ For example, public funding may be needed to retrofit low-carbon building heating and cooling solutions, especially for low-income households. Public finance may also be needed to support first-of-a-kind decarbonisation projects, especially in heavy industries such as steel and cement, which tend to be capital-intensive and perceived as risky. The next round of NDCs could specify sectoral targets and investment required, which can help to attract private investment with the right support from policy and banking institutions.

¹⁸ ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

¹⁹ IEA (2024), *World Energy Investment 2024*.

²⁰ ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

2.1.2 Low-carbon investment by region

Most of the energy transition investment needed by 2030 is required in high-income countries and China, which are already significant emitters and must decarbonise rapidly. However, to decarbonise the global energy system, there must be a substantial increase in clean energy investment in middle and low-income countries. The IEA estimates that 85% of total clean energy technology and infrastructure investments in 2024, approximately \$1.7 trillion, will be made in high and upper-middle-income countries. China alone is expected to spend almost \$850 billion in 2024.²¹

In contrast, only an estimated \$320 billion will flow to developing countries in 2024.²² The ETC estimates that this amount must triple to an average of \$900 billion per year between 2026 and 2030 [Exhibit 2.4]. In total, \$2.85 trillion is required on average per year globally by 2030.

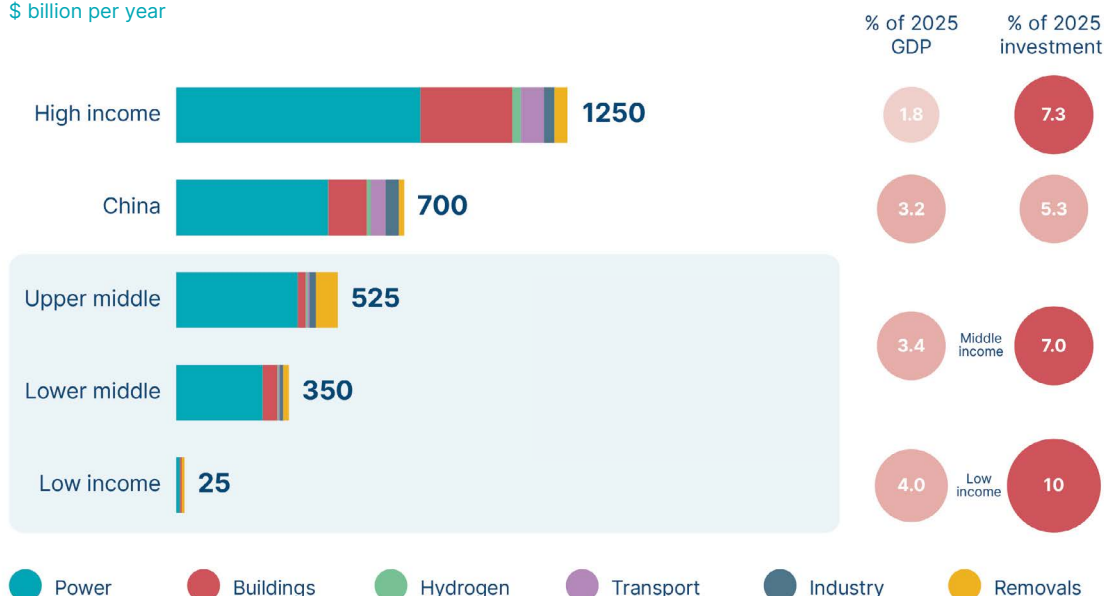
However, finance flows to middle and low-income regions face the biggest barriers due lack of project pipelines, poorly defined country investment and development plans, and a mix of investment risks which increase the cost of capital.²³ Rising inflation rates in recent years have further led to higher borrowing costs, resulting in even greater hurdles to unlock international investment. Section 3 describes various finance mechanisms that can fill finance distribution gaps and Section 4 describes how the NCQG and NDCs can help to unlock and distribute finance to developing countries.

Capital investment in middle and low income countries needs to reach ~\$900 billion a year on average between 2026–2030

Exhibit 2.4

Estimated annual investment by region and sector, 2026–2030

\$ billion per year



Note: 2025 GDP projections based on GDP in market exchange rate terms. Total investment is assumed to grow in line with GDP.

Source: Systemiq analysis for the ETC (2023); Systemiq (2021), *Investments for green recovery and transformational growth 2020–30: Technical Note*; IMF (2022), *World Economic Outlook October 2022*.

²¹ IEA (2024), *World Energy Investment 2024*.

²² Up more than 50% since 2020. See IEA (2024), *World Energy Investment 2024*.

²³ For further discussion see the upcoming Independent High-Level Expert Group on Climate Finance report expected in November 2024.

2.2 Mitigation activities for which concessional/grant payments may be required

As technological progress reduces the cost of low/zero carbon technologies, many of the investments described in Section 2.1 will be cost competitive with fossil fuel based alternatives, and provided appropriate policies (such as carbon pricing and regulation) are in place, the vast majority of these investments will deliver a positive rate of return.

But as the ETC described in our 2023 *Financing the Transition* report, there are some actions which will not occur fast enough to meet a 1.5°C pathway without payments which will not receive a positive rate of return, and which will therefore require some element of concessional debt finance (at zero or very low rates of interest) or outright grant.

In particular we identified three priority areas for action:

- **Phasing out coal generation** earlier than would otherwise occur given the operating cost of coal plants and existing contractual offtake agreements. Specific projects to achieve this may combine new clean power investments alongside commitments to curtail and eventually eliminate coal power generation: but the total combined package will often not deliver an acceptable return. We estimate that \$25–50 billion per annum will be required for around 15 years (towards zero by 2040) in order to achieve the pace of rundown required.²⁴
- **Ending deforestation** even when there are strong financial incentives to continue it. We estimated in our 2023 report that at least \$130 billion per annum would be needed to achieve an early end to deforestation. As we discuss later in Section 3.2, there are major questions over whether anything like this scale of payment is likely to be feasible.
- **Financing carbon removals**, whether via engineered solutions (Direct Air Carbon Capture), nature based solutions, or hybrid solutions such as biochar. Delivering these carbon removals will require actual investment (e.g., in DACC facilities or reforestation projects ground preparation and planting), but the payments made to finance these removals will not typically receive a return on their investment. Our 2023 report estimated that payments would need to rise to about \$100 billion per annum to fund approximately 3.2 GtCO₂ per annum carbon removals from natural climate solutions needed by 2030 to put the world on a path to limit global warming to 1.5°C.

2.3 Adaptation and loss and damage: financing needs and current flows

The ETC has not developed its own estimates of required investment in adaptation, nor of the cost which low income countries are facing as a result of climate change induced effects (e.g., extreme weather events). But the Songwe Stern report of 2022 *Scaling up Investment for Climate and Development* suggested that:

- At least \$220–250 billion per year is required to invest in adaptation and resilience in middle and low-income countries (excluding China). In 2022, adaptation finance flows were estimated at around \$60 billion [Exhibit 2.5].²⁵ At COP29, a framework for measurable adaptation indicators is expected to be developed. Based on the Global Stocktake at COP28, the framework will inform the development of National Adaptation Plans by 2030.
- At COP28, countries agreed that a Loss and Damage Fund is also required to help the recovery of middle and in particular low-income countries that are most severely affected by extreme weather events exacerbated by climate change. The Songwe Stern report estimated this finance need is on the scale of \$200–400 billion.

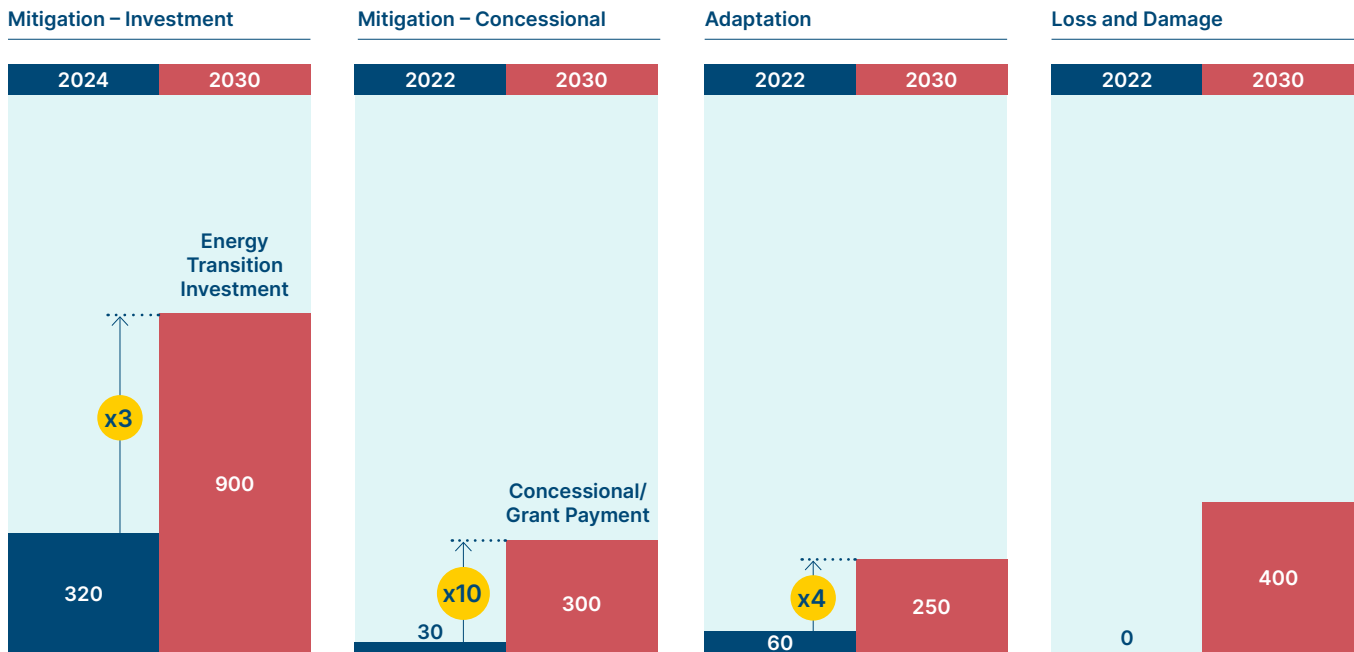
²⁴ ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*. These estimated payments would only be required in middle and lower-income countries (excluding China).

²⁵ Songwe V, Stern N, Bhattacharya A (2022), *Finance for climate action: Scaling up investment for climate and development*; CPI (2023), *Global Landscape of Climate Finance 2023*.

Current and required climate finance needs for middle and low-income countries (excluding China) in 2030

Exhibit 2.5

Estimated finance required in 2030
\$ billion per year



Note: In 2023, \$700 million was pledged to the Loss and Damage Fund.

Source: ETC (2023), *Financing the Transition*; Stern-Songwe (2022), *Scaling up Investment for Climate and Investment*; OECD (2024), *Climate Finance Provided and Mobilised by Developed Countries in 2013–22*; CPI (2023), *Global Landscape of Climate Finance 2023*; CPI (2024), *Understanding Global Concessional Climate Finance 2024*.



3. Sources of finance and policies required to unlock greater flows

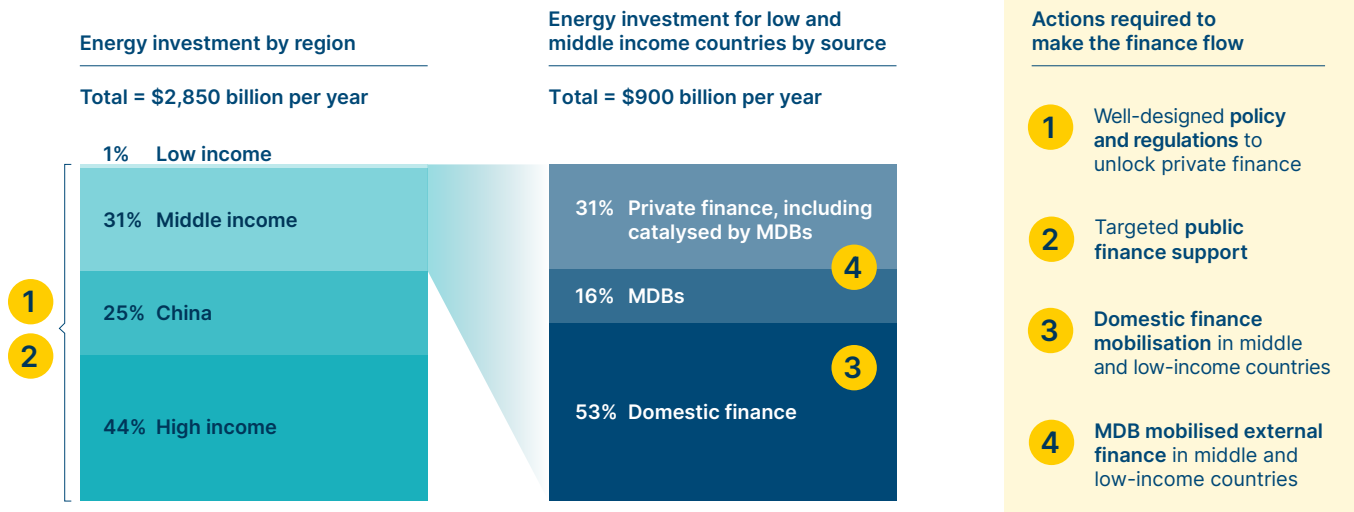
Exhibit 2.2 set out estimates of the total annual investment required to build a global zero carbon economy, together with payments which might need to flow to address specific categories of emissions reduction and to pay for adaptation and loss and damage in developing countries. In this section, we consider the potential sources for such finance covering the options for:

- Financing the \$3 billion per annum of net capital investment requirement for mitigation in both developed and developing countries by 2050.
- Financing the \$300 billion per annum payments which might be needed to drive specific categories of emissions reduction and removal: the projects to deliver this will likely be concentrated primarily (but not entirely) in developing countries.
- The potential for flows of finance to developing countries to support adaptation and offset loss and damage in more vulnerable low income countries.
- Some options for raising funds for finance which could support a number of different types of climate finance flows.

Four critical actions to ensure adequate mitigation investment

Exhibit 3.1

Annual climate finance requirements
\$ billion per year, 2023–2030



Note: Numbers may not sum due to rounding.

Source: ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

3.1 Financing capital investment for mitigation

Exhibit 2.2 indicated a required investment rate (net of reduced investment in fossil fuel) of about \$3 billion per annum across the whole world. Of this, the majority between now and 2030 is likely to occur in high income countries and in China, but it is essential that investment in middle income countries grows to reach about \$900 billion per annum in the late 2020s.

This \$900 billion per annum could come from the combination of domestic savings mobilisation, international financial flows mediated via public financial institutions including the MDBs, and international private financial flows, some of which will be stimulated by the risk reduction impact of MDB activities [Exhibit 3.1].

This implies four actions to ensure adequate funds to support capital investment in both developed and developing economies.

3.1.1 Well-designed policy and regulations will unlock private finance

As costs fall and markets scale, the returns to low-carbon technologies will continue to increase. Governments can introduce strong policies and regulations to accelerate this and help to direct investment to the right places by:²⁶

- **Establishing a clear strategic vision** to offer certainty to investors by committing to clear medium-term targets, standards and regulations. E.g., total electricity system decarbonisation by 2035, backed by GW targets for renewable electricity, and banning the sales of light-duty internal combustion engine vehicles by 2035. In middle and low income countries, this includes establishing robust national climate and development investment programs, and aligning national finance frameworks (regulation) to better define and support growing climate positive project pipelines.²⁷
- **Address the green premium challenge**²⁸ through e.g.,
 - Explicit and implicit carbon pricing complemented by carbon border adjustment mechanisms (CBAM) especially in high-income countries and China.
 - Contracts for difference (CfD) schemes to subsidise low-carbon producers in early-stage deployment and set an agreed fixed price for at least a portion of energy output, effectively reducing risks.
 - Quantitative mandates (e.g., percentage of shipping or aviation fuels from net-zero sources), direct consumer subsidies (e.g., for heat pumps) and public procurement which creates demand for low-carbon alternatives.
 - Long-term guaranteed offtake agreements for first of a kind technologies and business models that face financing barriers due to the high risks and uncertainties of unproven low-carbon solutions (e.g., low-carbon steel plants, sustainable aviation fuel).
- **Reduce downside risks of investing** by minimising variance of investment returns, de-risking early-stage technologies and legally committing to credible policies. E.g., appropriate power market design supported by long-term contracts for investor confidence; guarantees for early-stage technologies, R&D and first-of-a-kind plants.
- **Remove supply-side bottlenecks** which can delay or prevent projects. Governments can e.g., accelerate planning and permitting of renewables development; coordinate low-carbon “clusters” that share infrastructure (e.g., hydrogen or CO₂ infrastructure networks); encourage local critical material mining/processing where economic; and proactively overcome other potential bottlenecks, such as providing training for key skills.

3.1.2 Public finance support might be needed in some specific cases²⁹

In most countries, establishing real economy policies to support private investment flows is the top priority and will unlock most finance required. However, in some countries, and for some specific sectors, there may be a supporting role for public finance. Not all costs are falling as fast as solar panels, wind turbines or batteries, meaning some solutions require financial support to take off.³⁰ Direct loans, tax incentives, and investment or guarantees via publicly owned development/infrastructure banks may be appropriate to minimise private investment risk in first-of-a-kind technologies (e.g., low-carbon steelmaking facilities), scale key infrastructure (e.g., hydrogen transport and distribution, EV charging networks), and retrofit residential buildings.³¹

3.1.3 Domestic finance mobilisation needs to be accelerated, especially in middle and low-income countries³²

The relative economics of a low-carbon versus fossil fuel investment is largely dependent on the weighted average cost of capital (WACC), i.e. the comparative cost of borrowing. Low-carbon energy systems are characterised by high upfront costs and low operating costs. Higher borrowing costs in middle and low-income countries (in some instances due to a mixture of low domestic savings, undeveloped financial systems and financial markets, currency volatility, past or present macroeconomic or political instability which leads to increased lending risk, etc.) result in overall higher levelised costs of renewable electricity compared with high-income countries [Exhibit 3.2]. For example, nominal interest rates in middle and low-income countries can be up to seven times higher than in the US and Europe.³³

²⁶ For further detail see Chapter 2 of ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

²⁷ Blended Finance Taskforce and FSD Africa (2024), *Mobilising Domestic Capital to Drive Climate-Positive Growth*.

²⁸ The additional cost of a clean technology over a high-carbon alternative.

²⁹ Chapter 3 of ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

³⁰ ETC (2024), *Credible Contributions: Bolder Plans for Higher Climate Ambition in the Next Round of NDCs*.

³¹ Further funding could stem from voluntary commitments from the private sector (e.g., Net-Zero Asset Owners Alliance, Net Zero Banking Alliance and Glasgow Financial Alliance for Net Zero) and financial regulation to incentivise private capital allocation towards low-carbon investments.

³² Chapter 4.1 of ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

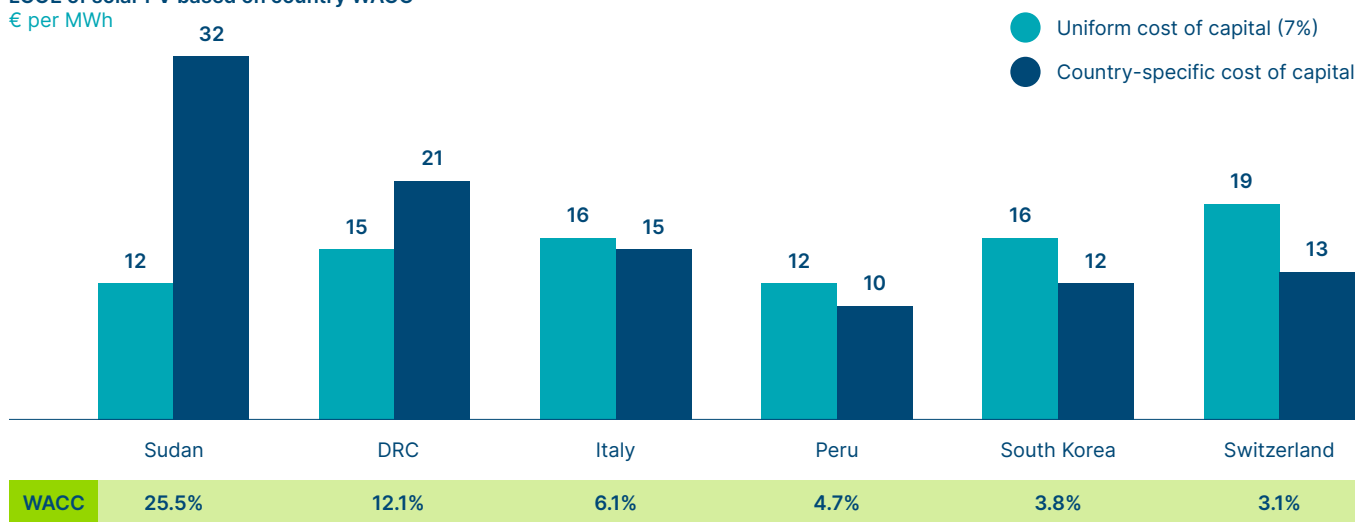
³³ IEA (2021), *Financing Clean Energy Transitions in Emerging and Developing Economies*.

Investing more domestic savings and private finance into local clean energy projects provides funding in local currencies, lowering overall costs compared to relying on international flows. Climate-positive growth through domestic capital mobilisation can be accelerated by well-designed national and sectoral investment plans, updated financial regulation to facilitate sustainable finance flows, especially removing regulatory barriers especially infrastructure caps for pension funds, and effective deployment of catalytic finance instruments in local currency to unlock domestic investors and to enable local currency transactions.³⁴ MDBs will play a key role deepening and greening local capital markets.³⁵ Improving tax collection via carbon pricing mechanisms and reducing fossil fuel subsidies can also increase available resources and remove perverse incentives to invest in BAU.

Costs in lower income countries could be significantly higher than those in high income countries due to cost of capital

Exhibit 3.2

LCOE of solar PV based on country WACC
€ per MWh



Source: Egli et al. (2019), *Bias in energy system models with uniform cost of capital assumption*.

3.1.4 External finance mobilised by MDBs and DFIs must play larger role to support middle and low-income countries³⁶

External finance describes money flows mobilised outside the country in question, which can be in the form of investments, loans and concessional finance. It is the main form of finance in the current \$100 billion per year finance goal. It is typically delivered through MDBs and Development Finance Institutions (DFIs), which must play a greater role in both directly providing this external finance, and using their institutional frameworks to leverage additional private investment [Exhibit 3.3].³⁷

As has been widely noted, MDBs can take on more risk than the private sector is prepared to and mobilise lower-cost capital because their government shareholders subscribe to guarantee MDB lending and implicitly stand prepared to absorb any future losses (e.g., via the commitment to “callable capital”). This lower cost of capital can provide financial rates that make low-carbon projects more economic compared with fossil fuel projects and helps to make large-scale external finance in the form of loans (debt) more sustainable. MDB and DFI reform is required to significantly expand financial capacity via new capital subscriptions, leveraging “callable capital” and scale catalytic instruments (including concessions, grants and guarantees) for climate mitigation to overcome barriers to private investment.³⁸ Accelerating these reforms will be critical to the overall transition, and the success of the NCQG.

Additional resources could be made available to national governments in lower-income countries by increasing access to IMF Special Drawing Rights (SDRs), which enable governments to borrow money from the IMF at interest rates linked to short-term risk-free rates in higher-income economies. Unused SDRs could be “rechannelled” from contributing higher-income country shareholders to lower-income countries through MDBs.

³⁴ See further recommendations for mobilising domestic capital in Blended Finance Taskforce and FSD Africa (2024), *Mobilising Domestic Capital to Drive Climate-Positive Growth*.

³⁵ For example, the European Bank for Reconstruction and Development’s work to develop mechanisms for local currency lending in Uzbekistan to strengthen the private sector’s role in the economy. See EBRD (2018), *Uzbekistan Country Strategy 2018–23*.

³⁶ Chapter 4.2 of ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

³⁷ Songwe V, Stern N, Bhattacharya A (2022), *Finance for climate action: Scaling up investment for climate and development*.

³⁸ Blended Finance Taskforce (2023), *Better Guarantees, Better Finance*.

The 2022 Bridgetown Initiative proposed innovative ways to use SDRs to provide emergency liquidity, expand MDB lending to over \$1 trillion, and activate private sector savings for climate mitigation.³⁹ Bridgetown 3.0 was launched at Climate Week NYC in September 2024, which builds on existing work and renews the call from 2022 for the IMF and its shareholders to agree on a new issuance of at least \$500 billion in SDRs through MDBs.⁴⁰ MDB reform and the Bridgetown agenda are expected to be further deliberated at COP29. Related to this, on the COP agenda is the Global Solidarity Levies Taskforce, convened by France, Barbados and Kenya, which proposes new global taxes on emission-intensive shipping, aviation, fossil fuel extraction, finance and billionaires, to channel into climate finance.

MDBs could realise half of the investment need through scaling up lending, policy and capacity building, and de-risking of private capital

Exhibit 3.3

Illustrative scenario for financing climate mitigation in middle and low income countries by 2030^A
\$ billion per year

ILLUSTRATIVE SCENARIO



Domestic public and private finance

At least half of the investment should come from:^B

- Domestic savings + private finance driven by real economy policy + private finance actions
- Public finance

MDB lending

Increase in total MDB lending by \$600 bn (from \$230 bn):^C

- \$350 bn directed to climate
- Of which \$275 bn to low/middle income countries
- Of which \$140 bn to climate mitigation^D

External private finance, in part mobilised by MDBs

MDB policy and capacity support + de-risking mobilises at least \$2 of private capital for every \$1 of MDB capital

Annual investment need 2026-30

Note: (A) Excludes China; (B) Estimates of current public and private investment cover regions dominated by middle and low income countries but likely overstate the true current amount invested as they do include some high income countries, but exclude China; (C) Literature review of estimates of feasible increases in MDB lending while maintaining a AAA rating; (D) Of total MDB finance, 50% used for climate, 2/3 directed to middle and low income countries, 50% used for mitigation (50% for adaptation).

Source: Systemiq analysis for the ETC (2023); Climate Policy Initiative (2021), *Global Landscape of Climate Finance 2021*; EBRD (2020), *Joint Report on MDB's Climate Finance 2020*; European Investment Bank (2024), *2023 Joint Report on MBD Climate Finance*; Climate Policy Initiative (2023), *Global Landscape of Climate Finance 2023*.

³⁹ Ministry of Foreign Affairs and Foreign Trade (2022), *The 2022 Bridgetown Initiative*.

⁴⁰ Bridgetown Initiative (2024), *Bridgetown Initiative on the reform of the international development and climate finance architecture*.

3.2 Financing other payments to drive mitigation⁴¹

Section 2.2 described three types of action – early coal power plant closure, ending deforestation and carbon removals – where rapid progress would likely require financial payments which, unlike the capital investments considered in Sections 2.1 and 3.1, would often not give a rate of return to the fund provider. The crucial question therefore is who will provide such payments and whether it is likely that they will be forthcoming on the scale required.

In our 2023 *Financing the Transition* report, the ETC suggested three possible sources for these payments by 2030:

- \$80 billion per year by corporates paying into voluntary carbon markets (e.g., 1.7 Gt per year of credits at an average cost of \$45–50 tCO₂),
- Up to \$75 billion per year from philanthropists (increasing the proportion of donations devoted to climate mitigation from 2% to 10%),⁴²
- The remainder (around \$200 billion per year) needing to be met by intergovernmental transfers of climate-related funding, which could theoretically be achieved if high-income countries met the UN's aid target (0.7% of Gross National Income) and spent half on climate.

There are however only limited signs of progress towards the provision of this finance. Commitments under the JET-P⁴³ programmes, which seek to support early coal closure in Southeast Asia and Africa, amount so far to about \$47 billion cumulatively.⁴⁴ Voluntary carbon markets are only developing slowly, with 164 million tonnes of all categories of offset or removal purchased in 2023, up 6% from 2022.⁴⁵ And while intergovernmental transfers could be devoted to these types of financing need, there are also demands that they are used to support adaptation and to compensate for loss and damage.

Transfers to fund the three purposes considered here, on the scale indicated in our 2023 report, may therefore be unfeasible, with particular doubt over whether either corporate, philanthropists or governments will provide the large sums of money required to halt deforestation in situations where it is financially attractive to continue it.

Alternative ways to prevent deforestation are therefore essential; these could include tropical forest countries making non contingent commitments to halt deforestation within their NDCs, developing countries imposing tariffs on the import of products resulting from deforestation, changes in consumer behaviour to reduce red meat consumption (the primary driver of deforestation), or the development of synthetic proteins.

3.3 Funding flows for adaptation and loss and damage

As Section 2.3 described, the Songwe Stern report suggested that:

- Investments in adaptation and resilience in middle and low income countries might need to reach \$220–250 billion per annum.
- Finance to offset loss and damage in these countries might need to reach \$200–400 billion per annum.

Some of the adaptation and resilience investment will and should be met out of domestic resources, particularly in middle rather than low income countries. And even if international finance is required, much of it may be in the form of loans at low/concessional rates: the role of MDBs in providing loans to government to support adaptation and resilience is therefore crucial. The required grant element to meet adaptation and resilience needs may therefore be only a small proportion of the \$220–250 billion per annum estimated total need.

As for loss and damage, the principle that higher income countries which have been responsible for the vast majority of historic emissions should make payments to help meet the resulting costs was accepted at COP28, where it was agreed to establish a Loss and Damage Fund supported by voluntary pledges. So far, however, just \$700 million cumulatively has been pledged,⁴⁶ illustrating the huge gap between estimates of the total need and the willingness of higher income countries to contribute.

⁴¹ Chapter 5 of ETC (2023), *Financing the Transition: How to Make the Money Flow for a Net-Zero Economy*.

⁴² Climate Works Foundation (2021), *Funding Trends 2021: Climate Change Mitigation Philanthropy*.

⁴³ Just Energy Transition Partnerships: public/private transition funding models.

⁴⁴ Energy Monitor (2023), *Don't write off the Just Energy Transition Partnership just yet*.

⁴⁵ BloombergNEF (2024), *Carbon Offset Demand Hits Record in 2023 Off Huge December*.

⁴⁶ Climate Home News (2024), *Expectations mount as loss and damage fund staggers to its feet*.

3.4 Other financing programmes and proposals

It is clear that in respect to the types of required financial flow discussed in Sections 3.2 and 3.3, there is likely to be huge divergence between estimated needs and the resources which high income countries will be willing to provide.

With good domestic policies and support by the large-scale mobilisation of MDB and other public official debt finance, the net requirement for capital investment described in Sections 2.1 and 3.1 can be financed. But for the categories of financial flow which will not typically generate a financial return on investment, the problem of who pays and how much to pay is inherently contentious and challenging.

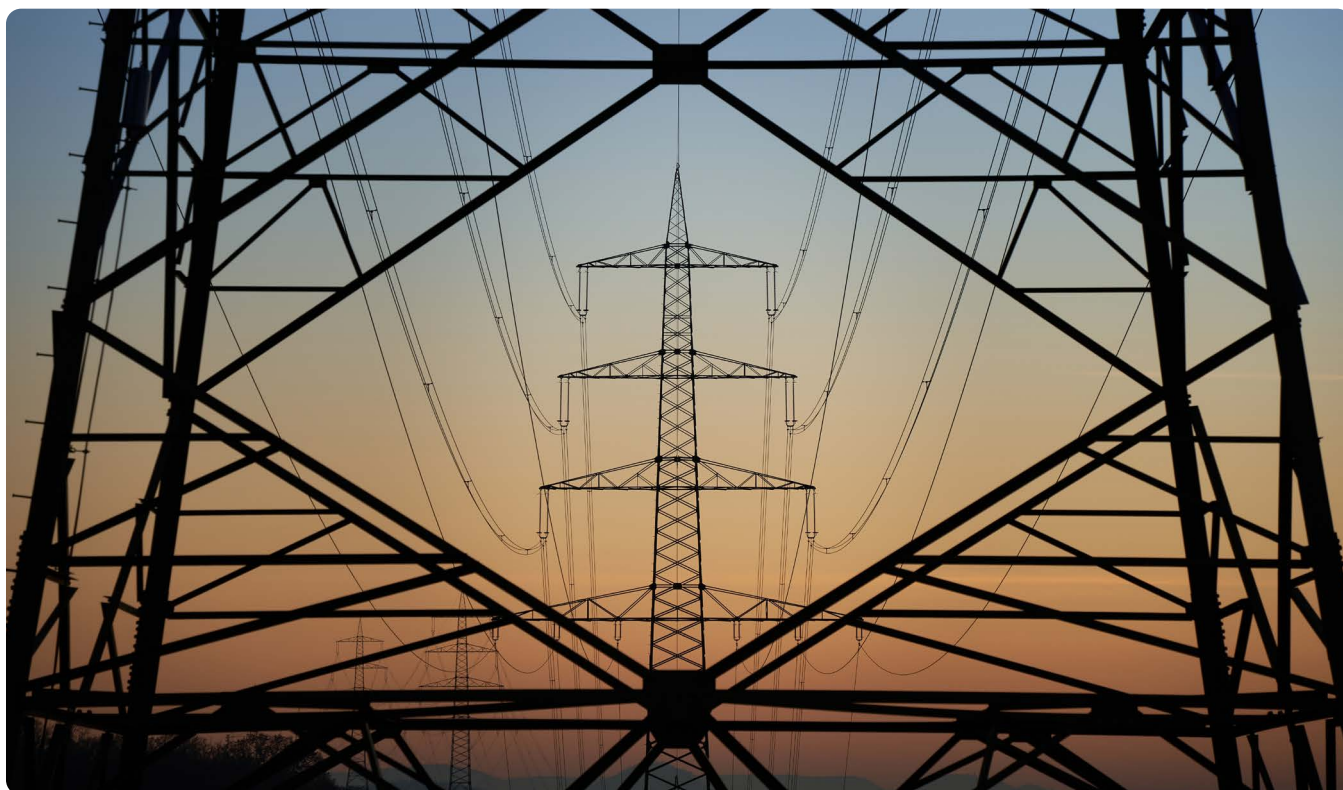
Given this challenge, high priority should be placed on identifying new sources of finance on which countries might be able to agree even in an environment where increased inter-governmental transfers financed out of national budgets will be very difficult to achieve on anything like the scale required.

Ideas which have been proposed include:

- The Climate Finance Action Fund, announced by the COP29 Presidency, which will be discussed at the upcoming conference. This proposed fund would receive voluntary contributions from oil and gas-producing companies and countries to support mitigation and adaptation initiatives in low-income countries.⁴⁷
- The Nairobi Declaration in support of a carbon tax on fossil fuel trade, maritime transport and aviation.
- The allocation of any revenues received under the EU (and UK) CBAM arrangements to support climate finance flows to low income countries.

The ETC believes that all of these ideas should be pursued, with a particular focus on achieving a wider application of carbon prices/taxes across the world with part of the funds generated allocated to providing climate finance flows to lower middle and low income countries.

Carbon pricing or regulation can prevent low-cost competition based on lower environmental standards. New low-carbon solutions often come with a “green premium” attached, meaning they cost more compared to incumbent fossil fuel based technology. A carbon price can help low-carbon solutions become cost-competitive on the market and incentivise investment in these areas. For example, policies such as the European CBAM can create a level playing field for industries by ensuring that carbon-intensive imports are subject to the same costs as domestic products.



⁴⁷ ECIU (2024), *COP29 – What to Expect*.






4. Key priorities for the NCQG and for NDCs

Exhibit 4.1 summarises the climate finance sources and requirements around the world as discussed in Sections 2 and 3.

Estimated climate finance requirements for energy transition, adaptation and loss and damage around the world

Exhibit 4.1

Average cost per year in 2030
\$ billion per year

	Category	Total Costs (\$ billion per year in 2030)	Area of the World	Sources of Finance
	Mitigation – Investment	1950	High income countries and China	Private investment, with some limited public support
	Mitigation – Investment	900	Middle and low income countries	Mix of private investment, MDB lending and additional investment catalysed by MDB actions
	Mitigation – Concessional	300	Estimate for all middle and low income countries	Primarily concessional/grant mechanisms
	Adaptation	250	Estimate for all middle and low income countries	Mix of MDB lending and concessional, grant mechanisms
	Loss and Damage	400	Estimate for all middle and low income countries	Grant payments only

Note: Mitigation investment numbers are 2026–2030 averages.

The analysis presented above carries implications for both:

- The optimal result of debates on the NCQG.
- The major role which NDCs can play in supporting required investment.

4.1 Achieving a good outcome from the NCQG debate

A Section 1.2 described, the commitment to deliver a “new collective quantified goal” for international climate finance was made at the Paris COP21 conference in 2015. But the world is far from agreement on what the NCQG should cover, let alone on specific quantified figures. In particular there is disagreement over:

- The headline figure, which should be referred to in the agreement. Some countries (e.g., India and the Arab countries) have proposed an NCQG commitment of \$1 trillion per annum, but the major developed countries have not so far agreed on any figure above the \$100 billion per annum existing commitment.⁴⁸
- Whether loss and damage payments should be included within the NCQG or not.⁴⁹
- Whether the group of higher income contributing countries should be expanded from the original 24 “Annex 1” countries defined at the UNFCCC Earth Summit in 1992.⁵⁰
- Whether the term “climate finance” refers only to concessional debt and grant finance or whether it should also cover non-concessional lending provided by the MDBs and private finance flows.

Given this wide divergence of opinions, there is a danger that the NCQG debate will be either or both fractious and inconclusive. One possible result is a formal commitment to a figure for “climate finance”, but with vague wording which leaves the precise meaning unclear and subject to different interpretations by different parties.

The ETC’s primary focus is on the technologies, investments and policies which can reduce global emission as fast as possible and thus mitigate further global warming. We do not therefore express a point of view on the scale of transfers which high income countries should make to support adaptation, resilience and loss and damage. But given the analysis presented in Sections 2 and 3, we believe that the NCQG conclusions will have the best impact on global mitigation efforts if they include:

1. Clarity on the types of finance flows required and what is covered by any NCQG commitments. As Section 2 showed, there are several different types of finance flows required, with different possible funding sources and requiring different policies to unleash. Effective action will only be achieved if the debate focuses on each of the different types and sources, rather than bundling them all into one figure for required “climate finance”.

2. Strong focus on the very large scale financial flows required to support mitigation and adaptation in middle and low income countries – e.g., about \$900 billion a year for mitigation. This focus should recognise that:

- The majority of this finance will come from private financial sources whether domestic or international; and well-designed real economy policies are essential to unleash this investment.
- But in some countries, MDB and other public financial institutions must play a major role in catalysing these private flows.
- And the most cost-effective way in which high income countries can support increased financial flows is via increased and more effective MDB lending and other MDB activities; this implies either increased capital subscription to MDBs, or support for increased MDB leverage.

In a world where government fiscal transfers are inherently contentious and constrained, MDB reform and increased MDB lending is the low hanging fruit of international climate finance. Multiple reports over the last four years have set out what needs to be done.⁵¹ Analysis should now be replaced by action.

3. Expansion of the definition of contributing countries to include at least China and high income oil and gas producers such as Saudi Arabia, UAE and Qatar. This is appropriate both in respect to:

- Transfers to support adaptation, resilience and loss and damage, because over the decades since the Kyoto Agreement, these countries have become responsible for significant absolute or per capita historic emissions, whether arising from their own domestic emissions or from the combustion of exported fossil fuels.
- Flows of finance to support capital investment, since these countries have distinctively low costs of capital deriving from either a structural bias towards savings (China) or natural resource rents (the Middle East oil and gas producing countries). They are therefore huge potential sources of funding for capital investment in middle and low income countries.

⁴⁸ Carbon Copy (2024), *NCQG’s New Challenge: Show us the Money*.

⁴⁹ WRI (2024), *What Could the New Climate Finance Goal Look Like? 7 Elements Under Negotiation*.

⁵⁰ “Annex I Parties include the industrialised countries that were members of the OECD in 1992, plus countries with economies in transition (the EIT Parties), including the Russian Federation, the Baltic States, and several Central and Eastern European States.” UNFCCC (2024), *Parties and Observers*.

⁵¹ See for example, Independent Expert Group (2019), *Transforming the Financial System for People and Planet*; Blended Finance Taskforce (2021), *Better Finance, Better World*; European Investment Bank (2022), *Joint Report on Multilateral Development Banks’ Climate Finance*; OECD (2022), *Multilateral Development Finance 2022*; International Finance Corporation (2023), *Mobilisation of Private Finance by Multilateral Development Banks and Development Finance Institutions*.

4. Strong support for new sources of funds to support climate such as those described in Section 3.4 which include:

- Contributions from oil and gas producing companies and countries such as envisaged under the Climate Finance Action Fund.
- Global carbon taxes on aviation and shipping as proposed by the Nairobi Declaration.
- The allocation of revenues arising from CBAMs to support climate finance flows to low income countries. These tariff-based flows would decline if carbon pricing/taxation spread to a wider set of countries, but could then be replaced by devoting a share of carbon taxes from across the world to climate finance priorities.

4.2 Submission of enhanced ambition NDCs with clear finance requirements will act as investment plans

In addition to agreeing the NCQG, new NDCs (“NDCs 3.0”) must be submitted ahead of COP30. The format and ambition of these contributions will be a subject of discussion at COP29. NDCs can provide certainty, unlock investment and accelerate technology deployment. Advances and cost reductions in key technologies – solar, wind and batteries in particular – now mean that the overall cost of mitigation can be low or zero in many sectors of the economy, if finance is provided at a low cost of capital. This means that all countries can and should embrace strong action on emissions mitigation in new NDCs. This ambition can be realised in most instances regardless of the outcomes of NCQG discussions.

If current NDCs targets were fully implemented, they would deliver ~6 GtCO₂e of mitigation per year by 2035. This is far from the ~26 GtCO₂e reduction required per year by 2030 for a 1.5°C-compatible pathway, from today’s almost 60 GtCO₂ total emissions. However, as our *Credible Contributions* report sets out, if governments were to update the next round of NDCs to reflect technological progress, national government policies, and commitments from industry and governments made to date – overall global ambition could triple. This could deliver ~18 GtCO₂e of mitigation per year in 2035 and put the world on a 2°C trajectory.

As previously noted, most climate finance will come from private actors. A strong NDC, combined with detailed sectoral policies and targets, can act as actionable investment plans. In order to make NDCs investable, the ETC recommends the next round of commitments:

- Define strong links between targets and supporting policy, acting as comprehensive roadmaps for implementation.
- Contain absolute or equivalent emissions targets, sector and greenhouse-gas-specific targets, and clear bounds of conditional targets for measurability and comparability.
- Clearly outline the business case for emissions reduction targets and policies needed to drive NDC-aligned investment (as noted in Section 2.1). Conditions should state the reductions or avoidance of emissions growth that can only occur with external support and/or technical assistance, and the amount of finance required and by when, ideally further breaking down these conditional targets to allow partial implementation should all finance not be delivered.

These improvements can turn NDCs into clear investment plans that have great potential to close the ambition and finance gap.

Beyond this, it is also worth looking closer at the conditional targets within NDCs. Conditional elements of NDCs are material – global emissions in 2030 will be 3.5 GtCO₂e lower if conditional elements of NDCs are fully implemented. Of the total \$4.5 trillion required to deliver current NDC targets, \$1.6 trillion is required to deliver conditional targets in middle and low-income countries’ NDCs.⁵² The majority of conditional NDCs should not solely rely on the outcomes of the NCQG. Indeed, conditional NDCs can attract finance by setting out clear investment needs (e.g., by sector), backed by strong policy and regulations that can ensure this investment is realised.

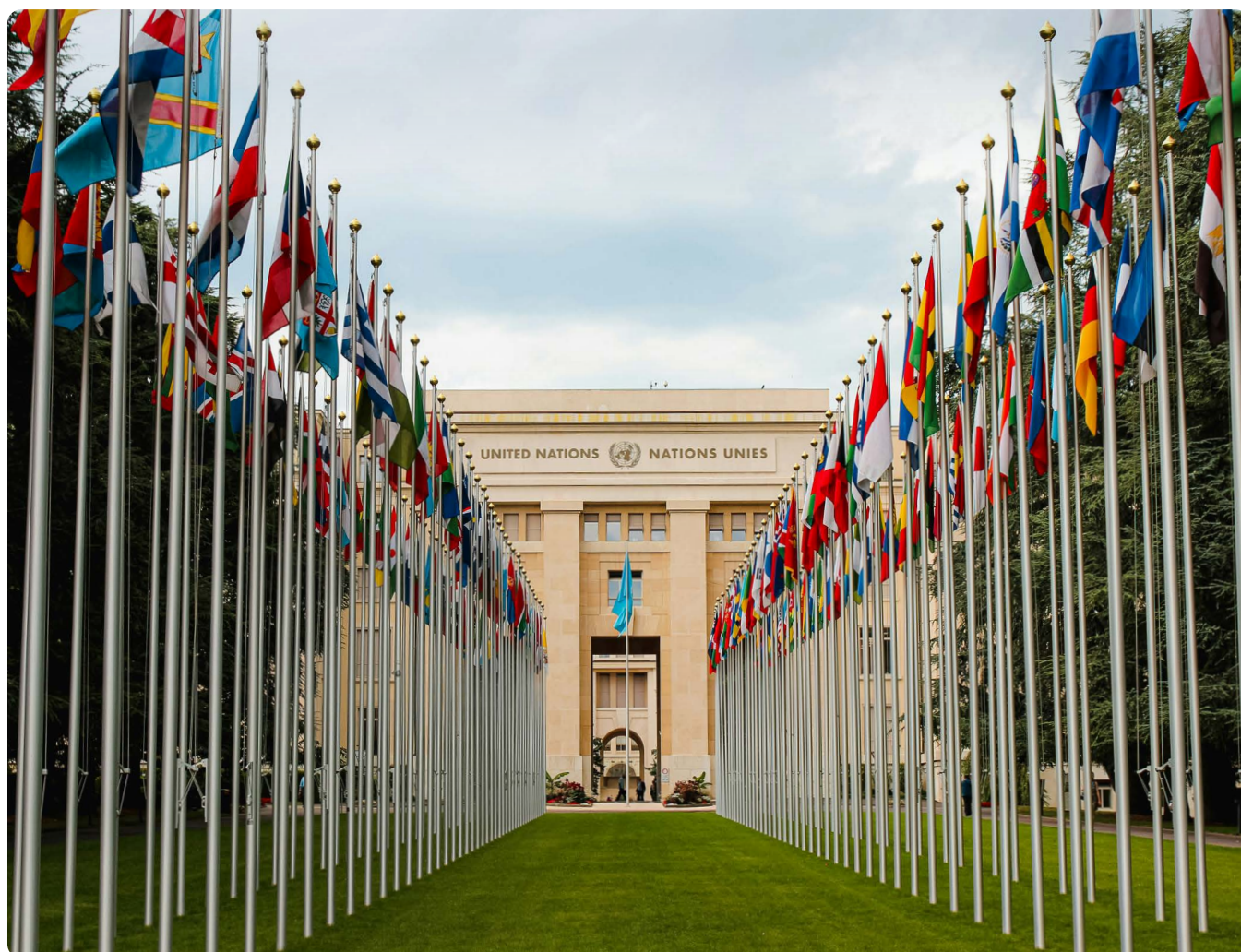
⁵² UNFCCC (2023), *New Collective Quantified Goal on Climate Finance*.

Increase finance commitments now, implementation next

Achieving a sustainable transition to a net-zero economy by mid-century is possible with sufficient financial flows directed towards climate mitigation, adaptation, and addressing loss and damage. The majority of this finance will be unlocked by the private sector, facilitated by policies that attract investment into low-carbon technologies and emission reduction solutions. As COP29 approaches and the NCQG takes centre stage, it is crucial to remember that most climate finance will continue to grow outside of this agreement, provided the right supporting policies and financial mechanisms are in place. These policies remain key priorities in the overall transition.

However, it is important to recognise the central role the NCQG can play in unlocking the scale of finance required for middle and low-income countries at pace. Success at COP29 could manifest in various forms, including:

- Recognition of the importance of real economy policy to unlock private finance flows, and evidence of clear national strategies and policy to enable this, including in revised and more ambitious NDCs.
- Accelerating progress towards delivery of commitments (e.g., countries delivering on their mitigation targets, Loss and Damage Fund, MDB reform).
- Clarity of what the NCQG covers (mitigation, adaptation, loss and damage) and ambitious targets for the quantum and types of finance based on priorities and needs of developing countries.



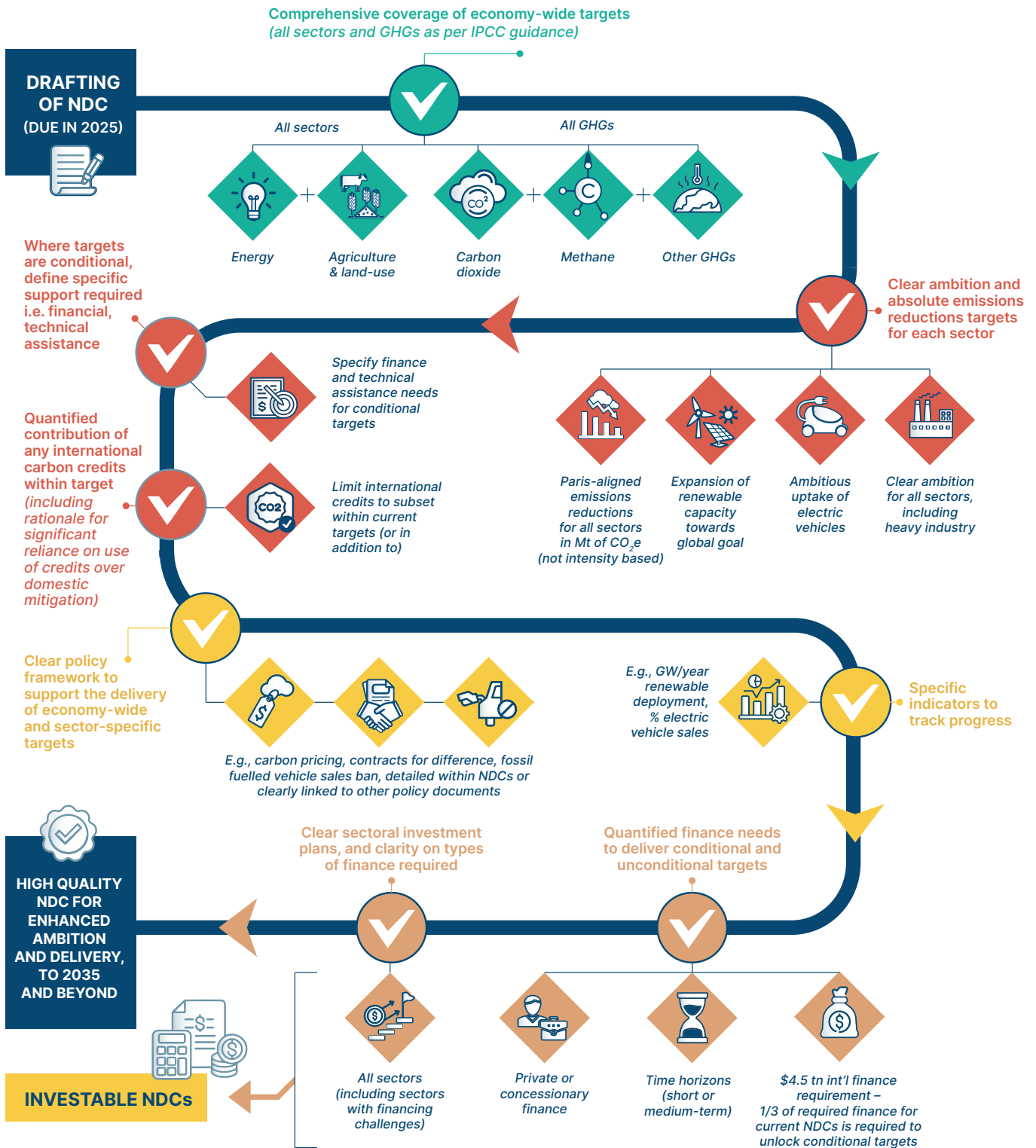


An “ideal” checklist for “Nationally Determined Contributions 3.0”

Must-haves for leading NDCs

(information can be presented in NDC or supporting document)

Best practice





Energy
Transitions
Commission