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Perspectives of the Global South:

WHAT DOES THE OUTCOME OF THE FIRST GST SIGNIFY FOR DEVELOPING COUNTRIES AND FOR THE NEGOTIATIONS OF THE NCQG?

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May 2024

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Keywords
UNFCCC, Paris Agreement, Global Stocktake, developing countries, 1.5°C, needs, energy package, tripling renewable energy, doubling energy efficiency, methane, coal, transport, deforestation, adaptation, loss and damage, climate finance, climate financial disclosure, innovative sources, carbon taxes, fossil fuel subsidies reform, NCQG

Cite as: López Carbajal, A., Fernández Fernández, E., and Barba Patiño, D.. (2024) Perspectives of the Global South: What does the outcome of the first GST signify for developing countries and for the negotiations of the NCQG?. Transforma.

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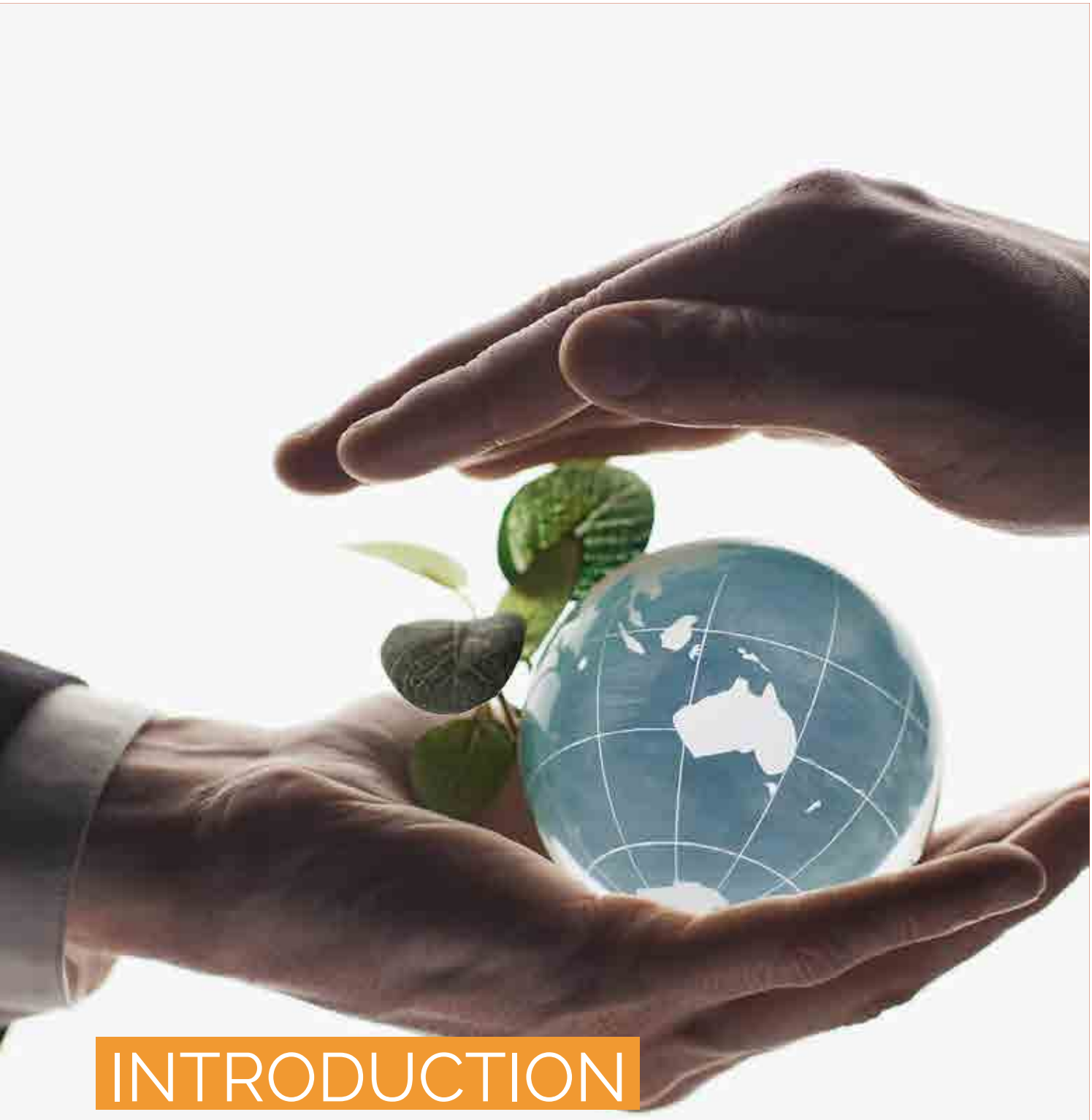
Acknowledgements
This working paper was funded by the generous support of the IKEA Foundation. We are thankful for the insights and feedback by several people including Charlene Watson (ODI) and the team in Transforma, in particular Mariana Rojas Laserna, Ximena Rojas Squella, Camila Muñoz and Diana Montaño.



INTRODUCTION

00

The expectations surrounding the first-ever Global Stocktake (GST) of the Paris Agreement were notably high leading up to the fifth session of the Conference of the Parties serving as the meeting of the Parties to this Agreement (CMA5), held in Dubai in December 2023. There was a collective desire for the GST to provide clear signals on how to rectify the trajectory of rising greenhouse gas emissions, bridge the adaptation gap, address loss and damage, and outline a robust framework for climate finance.

Despite certain loopholes that will be detailed throughout this Policy Brief, the outcome of the GST, namely Decision 1/CMA.5 (UNFCCC, 2023a), is historic in many ways. For the first time since the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, concrete signals and targets were provided in relation to the transition away from all fossil fuels; to halting and reversing deforestation; time-bound targets for adaptation action; and the necessity of adopting a synergistic approach for achieving the interdependent goals with other multilateral environmental agreements and global frameworks - notably the Convention on Biological Diversity and the 2030 Agenda for Sustainable Development.

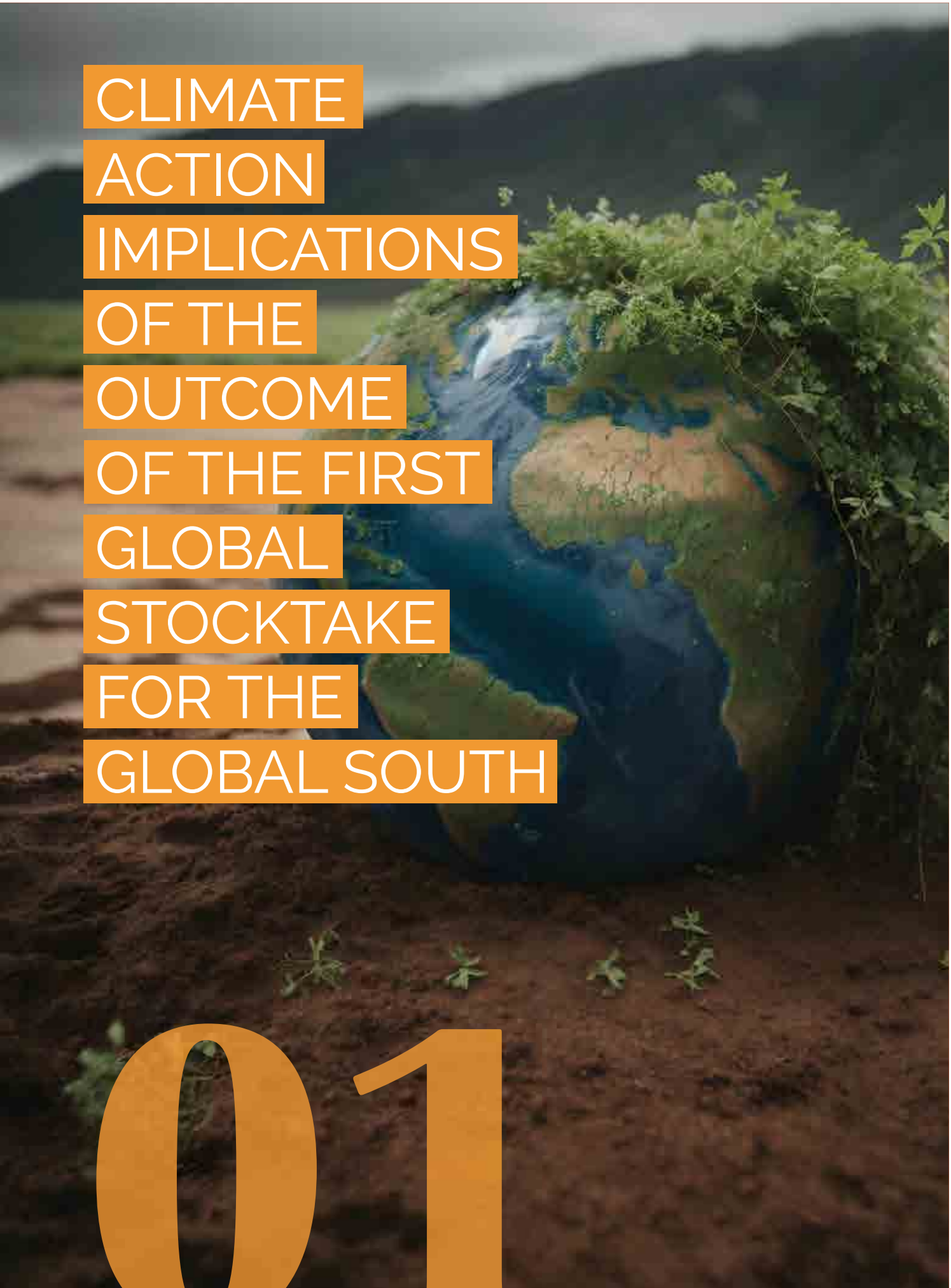
Likewise, the outcome of the GST is a useful tool for monitoring, implementing and holding countries accountable, as it provides these and other signals on how to align national policies and plans with a pathway for limiting temperature rise to 1.5˚C and achieving climate resilient development, including in relation to the Paris Agreements Nationally Determined Contributions (NDCs) for 2030 and 2035 and Long-Term Strategies (LTS), as well as action in the real world.

The sectoral and systemic transformations embedded in the implementation of these signals represent, however, monumental challenges for the developing world, as they require significant means that developing countries often lack at the scale needed and whose allocation, if not adequately planned, may compete with other development and poverty eradication priorities. Hence, concerns remain over the lack of detail and ambition of the financial component of the GST outcome vis-à-vis what will be needed to close the existing finance gap for developing countries.

It is important to note that the GST outcome also delivered some signals in relation to climate finance that could serve as opportunities for further action in general, and in the context of the negotiation of the new collective quantified goal on climate finance (NCQG), which will be decided at CMA6 in Baku (November 2024). This goal is seen as a critical step to rectify the deficiencies in the GST's decision in providing a clear financial commitment to support the implementation of the abovementioned sectoral and systemic transformations, and the under accomplishment of the current goal of USD 100 billion which is outdated and too small to address said challenges. Therefore, hopes are set for the new goal to establish a more robust framework to meet the needs for future action and ambition in the developing world.

This policy-brief assesses the outcome of the first GST through the lens of the needs, priorities and challenges of the developing world, as well as with a view of preparing the setting towards the achievement of an ambitious New Collective Quantified Goal on climate finance. The focus of this paper on developing countries has by no means the intention to disregard developed countries' responsibility to undertake urgent climate action, take the lead in the achievement of global mitigation targets in line with science including by fostering the full implementation of the GST in their respective constituencies, as well as the need for them to fulfill their climate finance obligations.

Notwithstanding this, the document comprises two parts: the first section focuses on the implications that implementing the signals from the GST may have for developing countries in terms of efforts, actions and associated challenges. The second section is centered on the climate finance signals of the GST and potential linkages of these to the forthcoming agreement on a new collective quantified goal at CMA6.



CLIMATE ACTION IMPLICATIONS OF THE OUTCOME OF THE FIRST GLOBAL STOCKTAKE FOR THE GLOBAL SOUTH

01

The first GST took place against the backdrop of the 6th Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), which highlights that at 1.1°C climate change has already caused widespread impacts and related losses and damages on human systems and altered ecosystems worldwide, and that these negative consequences will continue to escalate with every increment of global warming. It also warns that we only have a rapidly narrowing window of opportunity to secure a liveable and sustainable future for all, and that societal choices and actions implemented in this decade will determine the extent to which medium- and long-term pathways will deliver higher or lower climate resilient development (IPCC, 2023a).

Some of the multiple benefits of strengthening near-term mitigation and adaptation efforts that have been underscored by the IPCC AR6 include: reducing future adaptation costs and losses and damages, enhancing sustainable development co-benefits, avoiding the entrenchment of emission sources, and mitigating stranded assets and irreversible climate changes. Conversely, delaying these actions poses challenges such as escalating costs and losses and damages, infrastructure entrenchment, stranded assets, and diminished feasibility and effectiveness of adaptation and mitigation options (IPCC, 2023a).

Building on the AR6, the GST outcome made a collective assessment of progress towards the goal set out in Article 2, paragraph 1(a) and: 1) recognized that the impacts of climate change will be much lower at a temperature increase of 1.5˚C compared with 2˚C; 2) resolved to pursue efforts to limit the temperature increase to 1.5˚C; 3) emphasized the need for urgent action and support to keep 1.5˚C within reach and to address the climate crisis in this critical decade; and 4) highlighted that the magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions.

On this basis, the GST outcome sent: (A) a number of political signals to governments and other stakeholders for enhancing climate action and ambition and (B) delineated the steps that governments should undertake in communicating more ambitious short- and medium-term contributions in alignment with a long-term vision. Both areas will be assessed next.

A. SIGNALS FOR ENHANCING CLIMATE ACTION AND AMBITION

The GST provides a range of signals to enhance climate action and ambition that pose an important challenge for developing countries in how to translate them into transformative solutions capable of reducing GHG emissions at the speed and scale demanded by science to keep 1.5˚C within reach and ensuring a climate resilient development for all. Furthermore, adequately implementing these transformative solutions into actionable policies and measures, potentially incorporated into strengthened or new NDCs and long-term strategies by 2024 and 2025, presents an additional hurdle.

The readiness of developing countries to confront these challenges warrants consideration, especially as climate efforts must align with sustainable development and poverty eradication goals. Hence, this section analyzes the main mitigation, adaptation and loss and damage signals from the GST and what challenges and opportunities they represent for developing countries. It is important to note that our analysis has a greater focus on mitigation in the energy sector partly due to the relevance of this sector in global GHG emissions and the relevance of the "energy package" of the GST to developmental patterns in developing countries, but also since there is sufficient information, assessments and data available in existing literature and reports, whilst there is not the same level of information in regards to other areas or sectors of climate action.

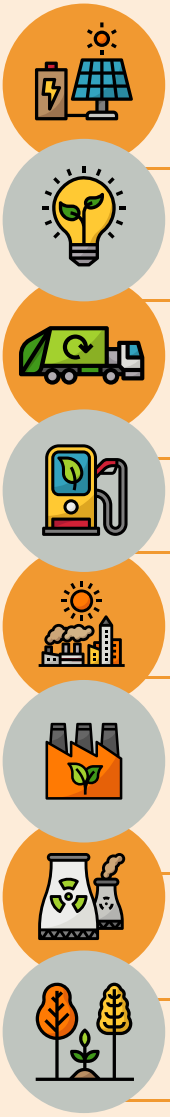
1. MITIGATION

In line with the AR6, the GST outcome sets the pathway for limiting global warming to 1.5˚C with no or limited overshoot by requesting Parties for: 1) peaking global greenhouse gas emissions between 2020 and at the latest before 2025; and 2) undertaking deep, rapid and sustained reductions in global greenhouse gas emissions of 43% by 2030 and 60% by 2035 relative to the 2019 level and reaching net zero carbon dioxide emissions by 2050, in a nationally determined manner and taking into account their different national circumstances, pathways and approaches (UNFCCC, 2023a). Although there are different sectors that are sources of GHG emissions and these vary amongst countries, the GST outcome brings particular focus to two major areas, i.e. the landmark "energy package" (see Box 1) and the target to halt and reverse deforestation and forest degradation by 2030, both of which will be analyzed below[1].

1 Other equally important signals that will not be analyzed in this policy brief are, among others, the one on transitioning to sustainable lifestyles and sustainable patterns of consumption, and conserving biodiversity, in line with the Kunming-Montreal Global Biodiversity Framework.

BOX 1. THE GST ENERGY PACKAGE

The energy package encompasses the following signals:



- Transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with science;
- Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030;
- Accelerating the reduction of emissions from road transport on a range of pathways, including through development of infrastructure and rapid deployment of zero- and low-emission vehicles;
- Accelerating efforts towards the phase-down of unabated coal power;
- Accelerating and substantially reducing non-carbon-dioxide emissions globally, including in particular methane emissions by 2030;
- Accelerating zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage, particularly in hard-to-abate sectors, and low-carbon hydrogen production;
- Accelerating efforts globally towards net zero emission energy systems, utilizing zero-a and low-carbon fuels well before or by around mid-century;
- Phasing out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible.

These signals were complemented by the recognition that transitional fuels can play a role in facilitating the energy transition while ensuring energy security.

Source: Decision 1/CMA.5 (UNFCCC, 2023a)

a) Energy Package

The so-called energy package of the GST contains unprecedented targets within the multilateral climate negotiation that send signals to all actors inside and outside the UNFCCC to initiate as soon as possible a systemic energy transition in order to meet the long-term goals of the Paris Agreement.

The energy sector bears the largest responsibility for global human-made GHG emissions, accounting for 72% of the total, followed by agriculture, forestry, and other land use (AFOLU) with 17%, and the remaining 11% attributed to bunker fuels, waste, and industrial processes (C2ES, 2024). In 2021, fossil fuels provided 80% of the total energy supply worldwide, of which 29,5% comes from oil, 27% from coal, and 24% from natural gas, 5% from nuclear and 5.2% from other sources. Of the total global emissions from fuel combustion, coal represents 44%, followed by oil (32%) and gas (22%). Additionally, in 2023, the sectors with the highest energy consumption were industry (167 EJ), buildings (133 EJ), transport (116 EJ) and other end-uses (27 EJ) (IEA, 2023h).

In spite of the largest dependence on fossil fuels in global energy supply, there has been a remarkable 50% growth of global renewable energy capacity, with solar photovoltaic (PV) installations on the lead, particularly led by the energy crisis triggered by the Russian invasion of Ukraine in 2022 and with a very clear leadership role on record-high increase in China, Europe, the United States and Brazil (IEA, 2024a).

The GST's energy package as a whole is powerful but we deem necessary to break down its signals[2] and analyze their implications, challenges, and opportunities for developing countries in the short, middle (2030, 2035) and long term (2050), in the context of sustainable development and poverty eradication.

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→ Transitioning away from fossil fuels in energy systems

To limit global warming to 1.5°C, CO_2 emissions must be reduced by approximately 37 gigatonnes from 2022 levels, with net-zero emissions in the energy sector by 2050 (IRENA, 2023). How-

2 The phasing out of inefficient fossil fuel subsidies will be assessed in the second section of this policy brief.

ever, fossil fuel combustion remains to be the primary driver of climate change and, despite emissions reduction pledges, major oil-producing nations have not committed to scaling back production and are actually planning to more than double fossil fuel production by 2030, surpassing levels consistent with the 1.5°C target (SEI et al, 2023).

Developing countries experience development challenges that may put in competition policies addressed to guarantee rapid access to energy and essential services with efforts to transition away from fossil fuels[3]. As a matter of fact, the shift towards a fossil fuel-free world poses different challenges with regard to each country's role as producers and/or exporters of fossil fuels, and as consumers with increasing energy demand, their role in the production of critical minerals for the transition, plus the challenges associated with economic development itself.

Many developing countries rely heavily on fossil fuel production revenue, posing a significant challenge as they confront the prospect of declining income during the energy transition, considering that the oil and gas sector often constitutes a substantial portion of national income (Saha et. al, 2023). Therefore, these nations, specially middle income countries with small national oil companies face unique hurdles in transitioning away from fossil fuels in a fair and equitable manner, including in how to diversify their economies and ensure the proper support to communities reliant on the fossil fuel industry to transition to green jobs and more sustainable livelihoods. Implementing policies to spur private investment and garner support from international development agencies and cooperation from developed nations is also challenging. (IEA, 2023h; Saha et. al, 2023)

Furthermore, some countries have recently uncovered significant new oil reserves, viewing them as an opportunity for economic growth and development. Notably, Guyana has discovered approximately 11 billion barrels of oil, positioning the nation to become one of the fastest-growing producers and exporters by 2035 (IEA, 2023h).

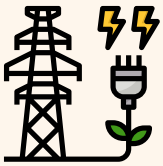
Emerging Markets and Developing Economies (EMDEs) (different from China) face the imperative of ensuring energy access for their populations, addressing the needs of approximately 775 million people without electricity and around 2 billion lacking access to clean cooking fuels and equipment (IEA, 2023h). Moreover, despite current and future efforts, under the IEA's Stated Policies Scenario, it is still expected that fossil fuel demand will increase within these economies, including a nearly 30% rise in oil demand, a 25% increase in gas demand, and a 4% uptick in coal demand by 2030 in comparison to 2020 levels (IEA, 2021c). The projected surge in energy demand, particularly from industry (rising over 20% by 2030 and 65% by 2050), underscores the urgency of providing affordable and reliable energy solutions (IEA, 2023h). With an es-

3 Since the start of the energy crisis, Emerging Markets and Developing Economies (EMDE) governments have dedicated more to consumer affordability measures (USD 140 billion) than to clean energy investment support (USD 90 billion) (IEA, 2023h).

timated additional 1.8 billion people residing in urban areas of developing countries by 2050, holistic strategies are imperative to meet the burgeoning energy needs of households and transportation services for this expanding urban population (IEA, 2023h).

Critical minerals are essential for the global proliferation of renewable energies and their storage, with demand expected to increase substantially -on a scale of 2 to 3.5 times- by 2030 according to IEA scenarios (IEA, 2023b). Addressing this demand entails tackling four primary challenges (the first three based on IEA, 2023b): 1. ensuring adequate future supply; 2. diversifying mineral sources4; 3. maintaining sustainable production processes; and 4. not compromising communities' well-being and conservation of their strategic ecosystems. Regions such as Latin America, endowed with significant potential in critical mineral production, is poised to play a crucial role in facilitating the energy transition5.

In summary, policymakers in developing countries face the challenge of meeting the growing energy demand and maintaining the stability of their economies while making parallel progress in replacing fossil fuels. Consequences to local economies and communities must also be considered, as well as incentivizing private investments, guaranteeing energy security, generating data collection, providing job creation for a just transition, and retrofitting buildings and industries.



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→ Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements

In order to transition away from fossil fuels, scaling up renewable energy capacity and energy efficiency is paramount. Renewable energy growth is expected to surge to 2.5 times current levels by 2030, with recent increments mainly driven by China, Europe, the United

4 Production of critical minerals is heavily concentrated in top three producing nations - South Africa, Democratic Republic of Congo and China -, controlling well over three-quarters of global output of lithium, cobalt and rare earth elements (IEA, 2022b)

5 Latin America could experience a 65% growth in critical mineral revenues by 2030 (IEA, 2023h).

States, and Brazil (IEA, 2024a) and almost 90% of global renewable power capacity residing in G20 countries, thus necessitating scaling up renewables in many EMDEs outside the G20 to achieve the tripling target, which represents a global capacity of more than 11,000 GW by 2030 (IEA, 2024b).

Conversely, in 2020 global energy efficiency improvement slowed to 0.6% from the previous decade's 1.8% average, attributed to Covid-19 lockdowns and economic shifts. Low improvement rates persisted in 2021-2023, falling short of the 4% annual improvement needed to double the rate by 2030 (IEA, 2023c).

The shift towards renewable energy and energy efficiency holds immense promise for developing nations. Africa, with abundant solar resources, currently utilizes only 1% of its solar generation capacity. Latin America, already generating 60% of its electricity from renewables, possesses remarkable wind and solar potential. Conversely, Asia relies heavily on coal, with renewables accounting for only 14.2% of its energy, though transitions to solar, offshore wind, biomass, hydro, and geothermal energy are evident in Southeast Asia (IEA, 2022a; IEA, 2023f; Wan, 2023; TMF group, 2023; Terazawa, et al., 2023).

Despite persistent barriers, access to renewable energy has become more attainable, with costs decreasing substantially since 2010, according to the IPCC AR6 (IPCC, 2023a). Moreover, energy efficiency is pivotal in achieving a clean energy transition, for it not only reduces prices in energy bills by 30%, but it has the potential of halving emissions and creating over 4.5 million new jobs by 2030 (IEA, 2023c).

The implementation of these targets has been estimated in $12 trillion investment in the power system by 2030 to align with the 1.5°C temperature limit, with $8 trillion allocated for renewables installation and $4 trillion for grid and storage infrastructure (Climate Analytics, 2024). This transition requires significant infrastructure improvements to ensure efficient energy production, transmission, and distribution, including investments in electricity generation, grids, and electric vehicle charging stations (IEA, 2023h).

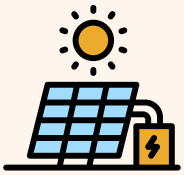
It is important to note that there are regional disparities in energy investment trends, particularly concerning developing regions where some will need to substantially increase their renewable energy capacity to meet goals[6]. While Asia and OECD countries have shown significant growth in power sector investments since 2015[7], other regions like Latin America, Middle East and North Africa (MENA), and Eurasia have experienced stagnant trends. Additionally, clean energy investment per capita in EMDE countries remains significantly lower than in developed economies and China (Climate Analytics 2024; IEA, 2022c)

6 Some regions will have to triple (and even increase from 6 to 11 times in the case of Africa) their renewable energy capacity to meet the tripling goal (Climate Analytics, 2024).

7 89% in Asia and 53% in OECD countries since 2015.

The growing potential of renewable energy sources like solar, wind, and tidal power in the developing world is evident, yet significant barriers hinder investment in these projects: 1. Policy and regulatory uncertainties on the renewable energies market create an uncertain environment for investors; 2. Inadequate infrastructure and insufficient investment in grid infrastructure impede the rapid expansion of renewables, with thousands of gigawatts of renewable generation capacity stuck in grid queues; 3. Administrative barriers and prolonged authorization processes further hamper project pipeline expansion and elevate risks and costs; 4. A shortage of skilled labor exacerbates disruptions and delays in the electricity sector, particularly for projects like offshore wind and nuclear power plants; 5. Moreover, difficulty accessing financing due to high costs and market instability poses challenges, driven significantly by rising interest rates, especially in emerging and developing economies. These barriers hinder large-scale projects involving capital-intensive technologies like offshore wind and new nuclear power plants, as well as consumers relying on credit to finance electric vehicles. Addressing challenges presented above can lead to a 21% higher growth of renewables. (IEA, 2021a, IEA, 2023h and IEA, 2024b).

Doubling energy efficiency and tripling renewables in the Global South requires international cooperation and support, scaling up investment for installation of renewables, modernized and flexible grids and storage infrastructure (Climate Analytics, 2024), in addition to a global revaluation of energy consumption patterns.



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→ Reduction of emissions from road transport

In 2022, emissions from the transport sector reached 8GtCO2e, of which road transport was responsible for 73% (IEA, 2023g). Developing regions showed the fastest rates of growth in global transport CO2 emissions during the 2010-2019 period, with Asia experiencing the largest growth rate (41%), followed by Africa (27%) and Latin America (3%) (UN, 2021).

To achieve net zero emissions (NZE) by 2050, CO2 emissions from the transport sector must fall by more than 3% per year by 2030. This represents an enormous challenge given that: 1. emissions from this sector have been

increasing by an annual average rate of 1.7% from 1990 to 2022 (more than any other end-use sector) (IEA, 2023g); 2. it still relies on fossil fuels (covering 91% of the sector's final energy demand) (IEA, 2023g); and 3. by 2030, annual passenger traffic will exceed 80 trillion passenger-kilometers (a 50% increase over 2015 estimates) (UN, 2021).

The developing world has more significant challenges that could slow down decarbonization in the transportation sector in comparison to advanced economies due to, among others: 1. the gap in access and universal coverage of transportation[8]; 2. the lack of optimal conditions in public transportation systems[9]; 3. the enormous investment in infrastructure that developing countries still need to ensure connectivity and enable optimal routes for the transportation of inputs and export products (Primi A. et al, 2023)[10]; and 4. the high costs of electric vehicles that are still evident in these countries[11].

Developing countries face significant connectivity disparities and are prone to limited infrastructure, vulnerable transportation networks, poor cross-border connectivity and greater exposure to climate change. In addition, the most vulnerable communities are the most affected by uneven access to transportation and connectivity, this includes rural areas or informal settlements, women, children and youth, elderly people, people with disabilities, amongst others (UN, 2021).

Furthermore, as the implementation of the GST signal also requires the alignment of public policy to discourage private car use and encourage the electrification across other vehicle types, such as public transport and other heavy duty means of transportation (IEA, 2023a), this will imply scaling up infrastructure and investment, providing universal access to transport, resilience and efficiency, and encouraging profound lifestyle changes such as the use of zero emission vehicles like bicycles.

→ Phase down of unabated coal power

Though this signal does not have a clear time frame, it slightly aligns with findings of the IEA's World Energy Outlook Report 2021 to phase out all unabated coal power by 2040 in order to keep within the pathway towards NZE by 2050.

Coal-fired power generation is the largest single source of CO2 emissions (IEA, 2021b). In 2022, the worldwide coal consumption rose

8 According to UN 2021, 1 billion of the rural population remain unconnected to a good quality road network.

9 The poor often cannot afford public transport and those with access spend more than a fifth of their income on public transport (UN 2021).

10 According to UN 2015 (as cited in OECD 2023), as of 2015, developing countries need an estimated USD 1 – 1.5 trillion to bridge their infrastructure gap. OECD has also estimated that infrastructure investment needs are mainly focused on the transport sector (43%), followed by the energy sector (34%) (OECD 2023).

11 Electric vehicle purchases in many EMDEs remain small in scale due to relatively high financing costs and high initial purchase costs compared to advanced economies. These costs are also usually influenced by the presence of subsidies for gasoline and diesel (IEA 2021a).

by 3.3 %. However, there is a disparity in coal consumption rates since developed countries have shown a decrease in the use of this fuel in recent years, while large developing countries such as China, India and Southeast Asia have seen an increase (Rapier, R, 2023).

Current global commitments to phase out unabated coal power fall far short to what the NZE target requires. Countries with little dependence on coal power or no-coal-industry are likely to commit to phasing out unabated coal power without consequences to their economies, electricity prices or energy security (IEA, 2021b). However, some countries have to do more heavy lifting than others, as economies which are heavily dependent on coal power face greater challenges. China alone was responsible for 53% of global coal-fired power generation in 2020, followed by India, the United States and Japan, representing over 75% of the world's coal-fired electricity (Broadbent, H., 2021). Coal generation continues to rise in developing countries such as Viet Nam, Philippines, Türkiye and Pakistan (Broadbent, H., 2021).

Accelerating phasing down of unabated coal power in developing countries must go hand in hand with public policy that evaluates impacts to the local economy, workers, and energy prices, as well as assess coal's share in local energy security and explores alternative sources of power generation. Transitioning away from coal power represents time and money for developing countries, requiring governments to provide support to affected communities, ensure electricity supply security, enact legislation to incentivize investment in clean electricity and infrastructure, implement carbon taxation, and ensure the conversion of coal power generation plants (IEA, 2021b).

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→ Reducing non-carbon dioxide emissions globally, in particular methane emissions

Methane emissions play a significant role in global warming, contributing to around 30% of the temperature increase since the Industrial Revolution. Agriculture is the largest anthropogenic source of methane, followed closely

by the energy sector[12], encompassing various sources such as coal, oil, natural gas, and biofuels (IEA, 2023e). According to the IPCC AR6, limiting warming to 1.5˚C with no or limited overshoot involves reducing global CH4 emissions by 34% below 2019 levels by 2030 and by 44% in 2040 (IPCC, 2022).

Methane abatement must be focused on the main sources of this gas: flaring, venting and methane leakage in the oil and gas sector and rice cultivation and livestock farming (Blanc, 2019). The energy sector, in particular the oil and gas industry, confronts different challenges in curbing methane emissions, especially in national oil companies in developing countries that do not have sufficient resources or in which investors or external actors do not encourage the reduction of methane emissions (Cahill and Swanson, 2023). First, there is a lack of comprehensive and reliable data on methane emissions[13] from different sources, making it difficult to target mitigation efforts effectively. Second, although adapting current technologies and introducing new practices and technologies to tackle emissions from leaks and gas venting may be necessary, it could disrupt existing workflows, leading to operational hurdles. Furthermore, methane abatement solutions are still underfunded, particularly in low- and middle-income oil-producing countries (Cahill and Swanson, 2023; IEA 2023e; Blanc, 2019; World Bank, 2022).

On the other hand, regarding methane emissions in the agriculture sector, despite the potential for reducing methane emissions through various measures such as enhancing livestock productivity, increasing rice yields, and developing enteric methane inhibitors, there is a glaring lack of substantial funding for coordinated research and development efforts in developing countries (Blanc, 2019). Farmers in developing countries encounter numerous challenges in mitigating methane emissions in agriculture, including securing a reliable water supply for implementing alternative wet and drying techniques in rice fields (Searchinger, T., Adhya, T. (2014) as cited in Searchinger et. al., 2021). In contrast, the challenges related to methane emissions from livestock activities in the global south are multifaceted. One of the primary challenges is the high emissions intensity per kilogram of meat or milk produced, particularly in regions such as India and Africa. This is due to factors such as lower feed efficiency, poor livestock health, and the reliance on less digestible feeds. (Searchinger et. al., 2021).

→ Accelerating zero- and low-emission technologies

One of the loopholes of the GST outcome was the inclusion of abatement and removal technologies such as carbon capture and storage (CCS), carbon capture and utilization (CCU) and carbon dioxide removal (CDR)[14] as part of the

12 According to the IEA, 2023e, the global energy sector was responsible for nearly 135 million tonnes of methane emissions in 2022, accounting for 40% of anthropogenic methane emissions.

13 Due to the lack of capacity to measure and understand methane emissions from the energy sector.

14 Both CCS and CCU capture CO_2 from industrial and energy-related sources. In the first case, the captured CO_2 is conditioned, compressed and transported to a storage location for long-term isolation from the atmosphere. In the second case, it is used in a product. While CDR removes CO_2 from the atmosphere and durably stores it in geological, terrestrial or ocean reservoirs or in products. (IPCC Glossary).

energy package without accompanying them of appropriate safeguards. CCS, CCU and CDR have long been presented by the oil and gas industries (e.g. Global CCS Institute, 2020) and governments from oil producing countries (e.g. Farand. C, 2022) as solutions to mitigation in order to maintain their business as usual model.

The inclusion of such technologies at the same level of other alternatives such as renewables ignores the IPCC AR 6 Synthesis Report's findings that CCS is the most expensive mitigation option and the one with the least potential contribution to net emission reduction by 2030. In comparison, investment in the renewable energy sector (mainly wind and solar) is the cheapest and more effective mitigation alternative, and has the potential of providing social and economic gains inline with the sustainable development goals. CCS faces other limitations for being scaled-up and the AR6 recognizes a role to this technology in hard to abate sectors like cement and chemicals (IPCC, 2023b).

Sustainability and feasibility challenges have also been recognized for scaling-up CDR (Dooley et al., 2022), and the AR6 recognizes a role to it for counterbalancing hard-to abate residual emissions, as a complement, not a substitute, of deep and rapid reductions in gross emissions IPCC, 2023b).

→ The role that transitional fuels play

Another loophole of the GST outcome was the recognition of transitional fuels as having a role to play in facilitating the energy transition. Language ambiguity within the GST could allow for the interpretation that fossil gas is an acceptable alternative to coal or oil, notwithstanding the fact that it is a well known fossil fuel energy source and CO2 emitter (EIA, 2022), responsible for one fifth of the world's total carbon emissions (ClientEarth, 2022).

Given the global energy landscape, many developing nations have turned to investing in gas as a new business venture. Such is the case of some African nations like Senegal, Mauritania and Mozambique, which have scaled up their investments and are now looking at Europe for exports. In Latin America, countries such as Mexico, Brazil and Argentina, have also begun increasing their investments and exploitation of gas (UNEP, 2022).

Several studies, including from UNEP, have found that it is more profitable to invest directly in renewable energy power systems than in natural gas, as in the case of Latin America it could bring the region a net benefit of $1,2 trillion by 2050 compared to business as usual, against $455 billion of net benefits that would produce investing in natural gas. It could also create around 3 million new jobs, against around 35,000 new jobs from investment in natural gas. The report concludes that natural gas is neither a cheap nor a low-emission alternative and investing in it would have lock-in effects (UNEP, 2022).

b) Halting and reversing deforestation and forest degradation

Halting and reverting deforestation is one of the most critical targets globally as a direct means to tackle climate change, but also to ensure

forests stand as a source of supply water, sustainable food production and home to biodiversity, particularly in developing countries where rates of deforestation are higher (FAO, 2022). This target is part of a broader signal to conserve, protect and restore nature and ecosystems towards achieving the Paris Agreement temperature goal and in synergy with conserving biodiversity in line with the Kunming-Montreal Global Biodiversity Framework.

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According to the IPCC AR6, the Agriculture, Forestry, and Other Land Uses (AFOLU) sector contributed 13-21% of global anthropogenic emissions from 2010-2019, with nearly half originating from deforestation (IPCC 2022). Agriculture expansion accounted for nearly 90% of global deforestation from 2000-2018, mainly for cropland expansion (52.3%) and livestock grazing (37.5%) (FAO, 2021)[15].

From 1990 to 2020, 420 million hectares of forest were lost. Ninety percent of this forest loss occurred in tropical regions, averaging 13.8 million hectares annually (FAO, 2020). In these developing countries regions, the highest average annual rate of net forest loss from 2010 to 2020 was observed in Africa (-3.94 million ha), followed by South America (- 2.6 million ha). In contrast, Asia had a positive net forest change during the same period (1,17 million ha). In South America, significant deforestation hotspots have been observed in Brazil, Colombia, Peru and Paraguay, while in Africa, Eastern and Southern Africa saw substantial forest loss. In Asia, deforestation was prominent in South and Southeast Asia (FAO, 2020).

Although stopping global deforestation is both urgent and beneficial in terms of emissions reductions (i.e. halting deforestation could cost-effectively avoid emitting 3.6 - 2 GtCO2e per year between 2020 and 2050, including 14% of what is needed by 2030 to keep planetary warming below 1.5°C (FAO, 2022), yet significant challenges persist, particularly in developing countries with tropical forests.

15 Nearly 80% of total agricultural land is dedicated to feed and livestock production while providing less than 20% of the world's food calories (UNCCD 2022).

Different drivers for deforestation means different challenges throughout the developing world. Small-scale and subsistence agriculture dominate forest-to-cropland conversion in Africa, while large-scale cropping prevails in Latin America, and a mix of small and large-scale activities characterizes Asia. Regarding deforestation due to livestock grazing, in Branthomme, 2023 was estimated that during 2010-2018, 40% of 47 Mh of forest converted to grasslands in Latin America was driven by large-scale livestock grazing, while in Africa, 95% of this land conversion was caused by small-scale farm activities (Branthomme et al., 2023).

It is also worth pointing out some underlying factors related to the drivers of deforestation that pose barriers to fighting deforestation properly. According to Dummett & Blundell (2021), 60% of worldwide tropical forest loss between 2013 and 2019 was driven by commercial agriculture (except in Africa, where subsistence agriculture has caused almost all deforestation in tropical forests of the continent), 69% of this forest loss was caused by activities conducted in violation of national laws and regulations and accounts for at least 42% of all emissions from tropical deforestation. The most common barriers relate to weak governance, under-resourced enforcement, widespread corruption and almost nonexistent monitoring and reporting on forest loss.

Provided the multidimensional nature of deforestation drivers and of barriers to halt and revert deforestation, addressing this particular target of the GST does not pertain to a one-size-fits-all response but rather it requires an equally multidisciplinary response which includes regulations and law-enforcement, working in synergy with biodiversity and nature conservation, its integration as part of national planning processes, as well as the provision of economic incentives at the national and international level. In terms of the latter, the REDD+ mechanism, created under the UNFCCC in 2013, has contributed to tackling the main drivers of deforestation in developing countries through activities that cover approximately 62% of the forest area in those countries, and 17 countries reported a reduction of 11.6 billion tons of carbon dioxide to access results-based finance (UNFCCC, 2023d).

However, REDD+ international governance and finance is still complex and fragmented, stemming from each country or organization independently supporting REDD+ efforts in developing countries. Fragmentation is further complicated by diverse results-based finance approaches, differing allocations to national and subnational programs, and complex donor-recipient relationships. Effective coordination requires an international information-sharing and monitoring system to track ongoing cooperation, finance commitments, disbursements, and support needs of REDD+ countries (Morita and Matsumoto 2023).

Additionally, benefit sharing continues to be a challenge in implementing REDD+ programs (Nofyanza and Dwisatrio, 2023). Furthermore, implementing the REDD+ approach as a mechanism in the voluntary carbon market has been highly questioned, given that most of the projects participating in this market have had a much lower impact on lowering deforestation rates and CO2 emissions reductions than what they estimated (Johns and Hockey, 2023).

The evidence then underscores the need for comprehensive approaches to bolster countries' REDD+ strategies. Forest Landscape Restoration (FLR) exemplifies such an approach, going beyond traditional forest restoration methods by incorporating local contexts, stakeholder impacts, and diverse landscape objectives. Although FLR is complex due to the involvement of numerous stakeholders, extended planning and implementation times, and high direct and opportunity costs, the economic benefits are substantial (RECOFTC, 2020). Restoration efforts can create jobs in land management and tree nurseries, boost sustainable yields for farms and timber industries, and lower costs associated with flood damage repair, silt removal, and water filtration. Restoring 350 million hectares of degraded land could generate up to $9 trillion in net benefits, significantly aiding poor rural communities and alleviating poverty. Additionally, restoration improves water and food security, biodiversity conservation, and climate protection (Besseau et. al, 2018).

2. ADAPTATION

As a result of the assessment of collective progress towards achieving the long-term goal in Article 2, paragraph 1(b), of the Paris Agreement and the global goal on adaptation set out in Article 7, paragraph 1, of the Paris Agreement, the GST outcome noted with alarm some of the shortcomings of current adaptation that were highlighted in the AR6 (IPCC, 2023b), namely that most observed adaptation responses are fragmented, incremental, sector-specific and unequally distributed across regions, and that, despite the progress made, significant adaptation gaps still exist across sectors and regions and will continue to grow under current levels of implementation.

On the solutions side, the GST outcome emphasized that long-term planning for and accelerated implementation of adaptation, particularly in this decade, are critical to closing the adaptation gaps and create many opportunities, and that accelerated financial support for developing countries from developed countries and other sources is a critical enabler.

Even though it did not explicitly recognize some other broader highlights of AR6 regarding adaptation solutions, e.g., that the feasibility and effectiveness of adaptation is increased when integrated, cross-cutting multi-sectoral solutions are undertaken, the GST outcome did send the following signals that go in that direction:

- Establishing and improving national inventories of climate impacts over time and building accessible, user-driven climate services systems, including early warning systems;
- Implementing integrated, multi-sectoral solutions, such as land-use management, sustainable agriculture, resilient food systems, nature-based solutions and ecosystem-based approaches, and protecting, conserving and restoring nature and ecosystems;
- Achieving, by 2030 and progressively beyond, a set of sectoral adaptation targets (see Box 2).
- Achieving a set of targets related to the four dimensions of the iterative adaptation cycle, most of them by 2030 (see Box 2).

BOX 2. ADAPTATION TARGETS

Two sets of adaptation targets were established for the first time in the history of the UN climate change regime by the Global Goal on Adaptation (GGA) (UNFCCC, 2023c) and GST decisions adopted at CMA5 in Dubai[16].

Sectoral targets by 2030 and progressively beyond:

- ***Water:*** Significantly reducing climate-induced water scarcity and enhancing climate resilience to water-related hazards towards a climate-resilient water supply, climate-resilient sanitation, and access to safe and affordable potable water for all;

- ***Food and Agriculture:*** Attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all;

- ***Health:*** Attaining resilience against climate change related health impacts, promoting climate-resilient health services, and significantly reducing climate-related morbidity and mortality, particularly in the most vulnerable communities;

- ***Ecosystems and biodiversity:*** Reducing climate impacts on ecosystems and biodiversity and accelerating the use of ecosystem-based adaptation and nature-based solutions, including through their management, enhancement, restoration and conservation and the protection of terrestrial, inland water, mountain, marine and coastal ecosystems;

- ***Infrastructure and human settlements:*** Increasing the resilience of infrastructure and human settlements to climate change impacts to ensure basic and continuous essential services for all, and minimizing climate-related impacts on infrastructure and human settlements;

- ***Poverty eradication and livelihoods:*** Substantially reducing the adverse effects of climate change on poverty eradication and livelihoods, in particular by promoting the use of adaptive social protection measures for all;

- ***Cultural heritage:*** Protecting cultural heritage from the impacts of climate-related risks by developing adaptive strategies for preserving cultural practices and heritage sites and by designing climate-resilient infrastructure, guided by traditional knowledge, Indigenous Peoples' knowledge and local knowledge systems.

16 The adaptation targets agreed as part of the GGA decision were replicated in the GST decision.

Targets related to each of the four dimensions of the iterative adaptation cycle:

Impact, vulnerability and risk assessment

- By 2030 all Parties have conducted up-to-date assessments of climate-hazards, climate change impacts and exposure to risks and vulnerabilities and have used the outcomes of these assessments to inform their formulation of National Adaptation Plans (NAPs), policy instruments, and planning processes and/or strategies;
- By 2027 all Parties have established multi-hazard early warning systems, climate information services for risk reduction and systematic observation to support improved climate-related data, information and services.

Planning

- By 2030 all Parties have in place country-driven, gender-responsive, participatory and fully transparent NAPs, policy instruments, and planning processes and/or strategies, covering, as appropriate, ecosystems, sectors, people and vulnerable communities, and have mainstreamed adaptation in all relevant strategies and plans.

Implementation

- By 2030 all Parties have progressed in implementing their NAPs, policies and strategies and, as a result, have reduced the social and economic impacts of the key climate hazards identified in the impact, vulnerability and risk assessments.

Monitoring, evaluation and learning

- By 2030 all Parties have designed, established and operationalized a system for monitoring, evaluation and learning for their national adaptation efforts and have built the required institutional capacity to fully implement the system.

Source: Decision 1/CMA.5, UNFCCC, 2023a

These signals are not to be considered in isolation from one another. They are all interrelated and their integration is necessary for strengthening overall resilience, reducing overall vulnerability, and enhancing overall adaptive capacity. For example, the AR6 characterized cross-cutting adaptation options such as climate services and early warning systems as having broad applicability across sectors and being able to provide greater benefits to other adaptation options when combined. The same can be said, e.g., of mainstreaming health considerations into food, livelihoods, social protection, infrastructure, water and sanitation policies (IPCC, 2023a) and the need for resilient infrastructure in all sectors.

While implementing and achieving the above-mentioned solutions and targets would certainly contribute to closing and addressing current adaptation gaps and shortcomings, the systemic transformations that this implies will require for developing countries efforts and means of implementation that in most cases lay outside their current financial, technological, institutional and human capacities[17]. Up-front investments will be required to be made in the near term in all sectors, such as infrastructure and human settlements, all adaptation options, such as climate services and early warning systems, and in all the dimensions of the iterative adaptation cycle.

→ Climate services and early warning systems

Climate services play an important role for the provision and use of climate data, information and knowledge to assist decision-making (GFCS, n.d), while early warning systems play a complementary role for preparing and responding quickly to extreme weather events. Despite their importance, Decision 1/CMA.4 recognized that one third of the world, including 60% of Africa, does not have access to early

The Early Warnings for All initiative of the UN Secretary General underlines as challenges the fact that only half of the world's countries report having adequate multi-hazard early warning systems, that even fewer have regulatory frameworks that connect early warnings to emergency and response plans, and that there are big gaps in the global observing system required to generate forecasts.

17 A list of challenges, barriers and gaps linked to adaptation, as described in Parties' national reports, is provided in UNFCCC Secretariat 2022.

warning and climate information services. The Early Warnings for All initiative of the UN Secretary General underlines as challenges the fact that only half of the world's countries report having adequate multi-hazard early warning systems, that even fewer have regulatory frameworks that connect early warnings to emergency and response plans, and that there are big gaps in the global observing system required to generate forecasts.

→ Infrastructure and human settlements

According to the IPCC AR6, resilience in infrastructure and human settlements would require considering climate change impacts and risks, e.g., through climate services, in the design and planning of urban and rural settlements and infrastructure. This is particularly important in the design and planning of key infrastructure systems, such as sanitation, water, health, transport, communications and energy. Furthermore, the AR6 highlights the benefits of investing more on green/natural and blue infrastructure, and combining it with grey/physical infrastructure, and prioritising finance in urban areas to reduce climate risk for low-income and marginalised communities, including people living in informal settlements.

However, developing countries face challenges for building resilience in this sector, as was highlighted by the AR6 WGII Report Chapter 6, regarding e.g., the structural impediments to the mobilization of investments for the types of public infrastructure needed for climate-resilient urban development in African cities, many of these cities being considered by financiers as "high risk".

→ Dimensions of the iterative adaptation cycle

The following review of developing countries' starting points in each of the dimensions of the iterative adaptation cycle makes clear the challenges that they face for achieving the targets mentioned in the GST outcome:

Impact, vulnerability and risk assessments. These assessments, which are the first step of the iterative adaptation cycle, rely on climate data, information and projections that are often lacking or incomplete in developing regions. For example, the IPCC AR 6 Synthesis Report showed that there was limited data and/or literature regarding certain changes in weather and climate extremes for Central and South America and Africa. Also, the the IPCC AR 6 Synthesis Report's indicated that the development of synthetic diagrams of global and sectoral assessments and examples of regional key risks in the report for Small Islands, Asia and Central and South America was limited due to the paucity of adequately downscaled climate projections. There is a pressing need to improve climate and weather observations and access to climate science information, both historical climate data and projected impacts, in developing countries, not only to inform these assessments but also for climate services and early warning systems. In this regard, decision 1/CMA.4 had emphasized the need to address existing gaps in the global climate observing system, particularly in developing countries.

Planning. At the adoption of the GST outcome, only 51 out of 132 developing countries had submitted a NAP. This number has risen to 54 developing countries as of 18

April 2024. Of this total, 20 are LDCs only, 9 are SIDS only and 3 are both LDCs and SIDS (UNFCCC, 2023b).

Implementation. The implementation of their NAPs has been very challenging for those developing countries that have already formulated one. In this regard, the GST outcome explicitly recognized the significant challenges that developing countries face in accessing finance for implementing their NAPs, and the the IPCC AR 6 Synthesis Report highlighted that most observed adaptation is focused more on planning rather than implementation.

Monitoring, evaluation and learning. The 2023 Adaptation Gap Report found that there is a general lack of infrastructure in countries to adequately monitor, evaluate and learn from their national adaptation processes. It found that only 24% of countries have an M&E system in place and only another 19% is developing one. The report also points out that most ongoing M&E is more focused on monitoring rather than evaluation.

The above are only some examples of all that will be required from developing countries to put themselves on a pathway towards contributing to the achievement of the long-term goal established in Article 2.1(b) of the Paris Agreement and the global goal on adaptation, and the challenges they face due to their very limited or lacking financial resources, capacity, technology and information.

In this line, the GST outcome recognized that accelerated financial support for developing countries from developed countries and other sources is a critical enabler for closing adaptation gaps, as well as the importance of means of implementation and support for developing countries at each stage of the adaptation policy cycle.

The 2023 Adaptation Gap Report estimated the costs of adaptation for developing countries to be in a plausible range of USD 215 billion to USD 387 billion per year this decade, which was highlighted by the GST outcome. The same report underlined that these adaptation finance needs are 10 to 18 times higher than international public flows to developing countries, with the adaptation finance gap being estimated to be USD 194 billion to USD 366 billion per year.

3. LOSS AND DAMAGE

The IPCC AR 6 Synthesis Report had made crystal clear that loss and damage is already a lived reality for many people and communities around the world, not just a future risk. This scientific finding was paramount for the rapid progress made since 2022 on the operationalization of the Santiago Network for catalyzing technical assistance on loss and damage and the establishment of funding arrangements, including a fund, for loss and damage.

In line with this tendency, the GST outcome reflected developing countries' position to have loss and damage as a stand-alone section, separate from adaptation. It also recognized that climate change has already caused and will increasingly cause losses and damages,

and acknowledged the significant gaps, including finance gaps, that remain in responding to the increased scale and frequency of loss and damage, and the associated economic and non-economic losses.

However, alongside general recognitions about the need for more knowledge, support, policy and action to comprehensively manage risks and respond to loss and damage, the GST outcome only sent two concrete signals on what countries should do next to ratchet ambition on loss and damage:

One, that seems more tailored to the research community, about improving understanding of how to avoid and respond to the risk of low-likelihood or high-impact events or outcomes, such as abrupt changes and potential tipping points; and

A call to Parties and relevant institutions to improve coherence and synergies between efforts pertaining to disaster risk reduction, humanitarian assistance, rehabilitation, recovery and reconstruction, and displacement, planned relocation and migration, in the context of climate change impacts, as well as actions to address slow onset events, in order to make progress in averting, minimizing and addressing loss and damage in a coherent and effective manner.

Additionally, the GST outcome indirectly signaled the need for enhancing the collection and management of data and information on loss and damage, by requesting the Executive Committee of the Warsaw International Mechanism to prepare voluntary guidelines on this to inform the preparation of biennial transparency reports.

These signals cover evidently only a small portion of what developing countries need for effectively averting, minimizing and addressing loss and damage. The reality is that for many developing countries it is not even clear what their loss and damage needs are. Even though data and information on losses and damages caused by extreme weather events exist in developing countries, this data and information has traditionally existed until now only in registers managed by emergency or disaster-related institutions and is not categorized and classified as pertaining to loss and damage associated with the adverse effects of climate change. This existing data and information generally accounts mostly for economic losses and losses of lives, leaving most of non-economic losses unaccounted for.

Furthermore, as mentioned above in the adaptation section, many developing countries lack adequate climate information, including downscaled climate projections, as well as climate services and multi-hazard early warning systems. This limits their ability to prepare for and respond to loss and damage, including for building forward better after an extreme event.

Gaps related to loss and damage action are inextricably related to the lack of means of developing countries. Until now, developing countries and their vulnerable communities and households have been bearing the burden of preparing for and responding to loss

and damage. A 2019 study (Eskander et al., 2019) demonstrated, for example, that rural households in Bangladesh spend almost USD 2 billion on disaster preparedness and response, which in absolute terms is more than double the government climate and disaster risk reduction spending and over 12 times higher than multilateral international financing to Bangladesh's rural population.

The challenges developing countries and their communities face for responding to actual and future loss and damage are daunting in terms of financial needs. To give an idea, in 2019 Markandya and González-Eguino estimated total residual damages for developing regions in a range of USD 116-435 billion in 2020, rising to USD 290-580 billion in 2030, USD 551-1016 billion in 240 and 1,13-1741 billion in 2050, with estimates given in billions of USD in 2005 prices. Richards, et al. (2023), recalculated these estimates to 2023 USD value, resulting in midpoint estimates of economic loss and damage of USD 425 billion in 2020 and USD 671 billion in 2030.

Hence, the needs and challenges of developing countries for responding to loss and damage are significantly much broader than the signals on enhancing understanding and improving coherence and synergies sent by the GST outcome, and overcoming them depends largely on climate finance for loss and damage.

B. NEXT STEPS: COMMUNICATING MORE AMBITIOUS SHORT- AND MEDIUM-TERM CONTRIBUTIONS IN ALIGNMENT WITH A LONG-TERM VISION

The GST decision established a roadmap for each Party to reflect its highest possible ambition in nationally determined contributions, informed by the outcome of the GST, that is, by introducing planning and implementation of concrete deliverables with regards to all of the abovementioned sectoral signals to enable the necessary transformations at the national level.

First of all, Parties that have not yet done so were urged and other Parties were invited to communicate or revise, by CMA6 that will take place from 11 to 22 November 2024, their long-term low greenhouse gas emission development strategies (LT-LEDS) referred to in Article 4, paragraph 19, of the Paris Agreement. These strategies, according to the GST decision and previous CMA decisions[18], should point out to-

18 1/CMA.3 and 1/CMA.4

wards just transitions to net zero emissions by or around mid-century, taking into account different national circumstances. This is important because it allows Parties to establish a long-term vision on where they want to be by or around mid-century on the basis of science and equity and use a backcasting planning method that will allow them to know what decisions and actions should be taken today in order to fulfill that long-term vision. This way, each successive NDC communicated every five years should represent a milestone towards the achievement of that long-term vision. Despite their importance, by the time of the adoption of the GST decision, only 68 Parties (71 Parties by 11 March 2024) had communicated their LT-LEDS.

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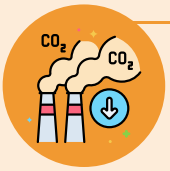
This was also the third time that a CMA decision requested Parties that have not yet done so to revisit and strengthen the 2030 targets in their NDCs, so as to align them with the Paris Agreement temperature goal, this time by the end of 2024[19]. This call is particularly important as it frames the level of ambition that actions must be taken in this critical decade to avoid exceeding the 1.5˚C threshold (reducing 43% of emissions by 2030), mainly by major emitters, in particular G20 countries, which are responsible for around 78% of all territorial GHG emissions (Oxfam, 2023).

Regarding the next round of NDCs, it was recalled that Parties should submit their next NDCs at least 9 to 12 months in advance of CMA7 (Nov. 2025), that is, by February 2025, and that they shall provide information on how the preparation of their NDCs has been informed by the outcomes of the GST. Importantly, the GST decision encouraged Parties: 1. to align their next NDCs with LT-LEDS; and 2. to come forward in their next NDCs with ambitious, economy-wide emission reduction targets, covering all greenhouse gasses, sectors and categories and aligned with limiting global warming to 1.5˚C, as informed by the latest science, in light of different national circumstances.

19 By the end of 2022 in decision 1/CMA.3 and by the end of 2023 in decision 1/CMA.4.

BOX 3. HOW TO CATALYZE ACTION IN THE ENHANCED AND NEW NDCs IN DEVELOPING COUNTRIES?

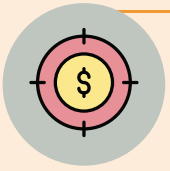
During the process of revisiting 2030 targets in existing NDCs, preparing new NDCs with 2035 targets and communicating or revising LT-LEDS, the governments in developing countries should take measures to catalyze action, such as:



- **Include systemic and cross-sectoral targets that not only contribute to emissions reductions in a specific sector but seek to make a larger-scale transformation.** For example, a country could set a medium or long-term goal to electrify its economy to the extent possible and commit to implementing intermediate steps toward reaching that goal under the NDCs.

- **Improve integration between national and subnational targets, not only to recognize the efforts of the territories but also to drive transformation and emissions reductions at different scales in sectors such as the waste sector where the implementation of mitigation actions mainly relies on subnational governments.** For instance, the experience of cities subscribing to the global C40 initiative could be leveraged, where the implementation of high-impact accelerators is currently being promoted and can serve as an example for other regions and be scaled up at the national level (C40, 2024).

- **Scale up the ambition of the NDCs to a transnational scale by identifying common priorities by region (i.e., Southern Asia) that can be implemented jointly.** This approach fosters regional collaboration and can catalyze the attainment of financing resources, leading to more effective and impactful climate action. Similarly, countries could include actions in their NDCs aiming to achieve goals set at the regional level, such as the goal set by 16 Latin American governments to achieve at least a 73% share of renewables in the region's electricity matrix by 2030 (OLADE, 2023).

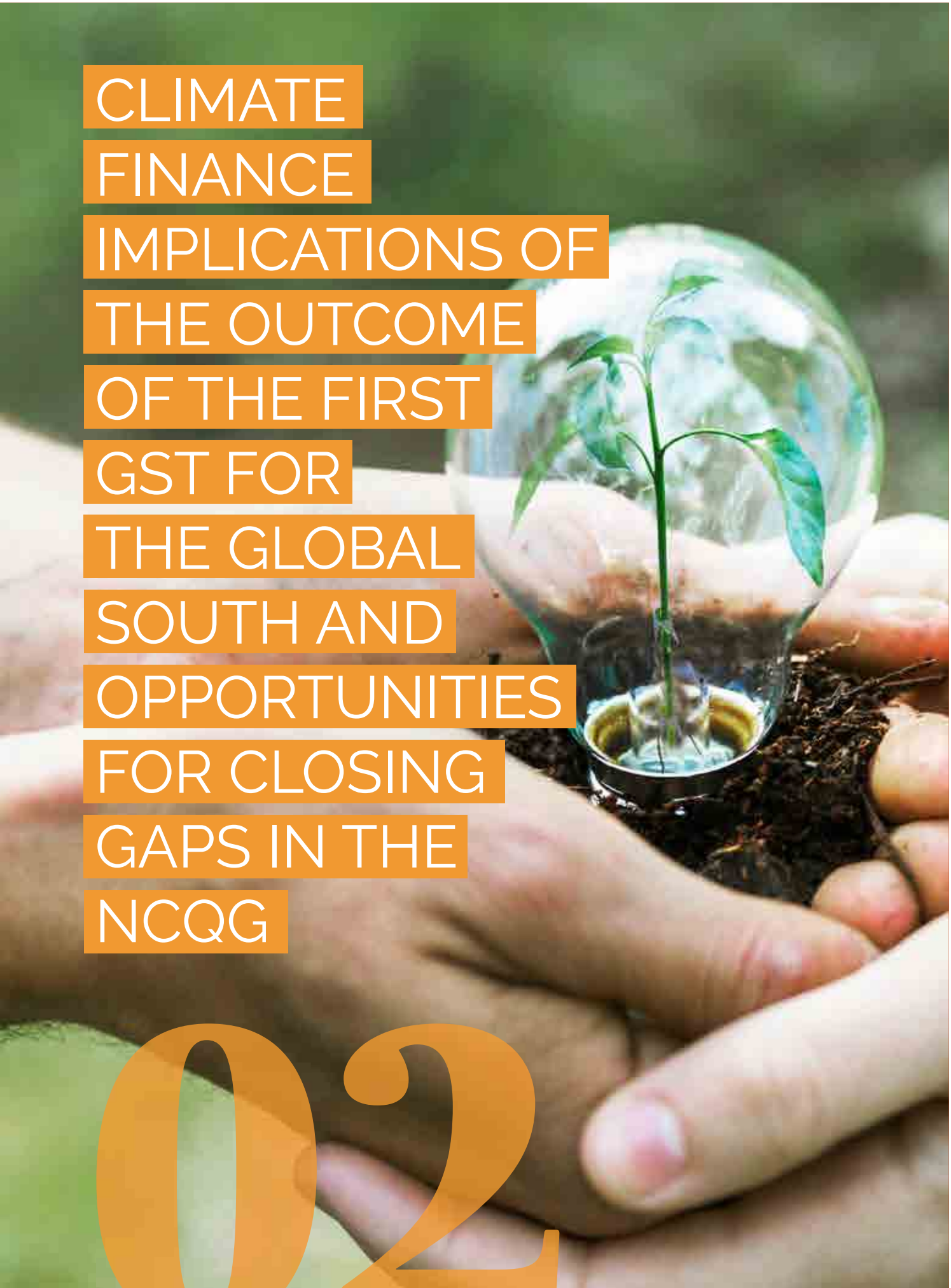


- **Promote targets that demonstrate how the country plans to implement the Paris Agreement and the Kunming-Montreal** global biodiversity framework in a complementary manner through integrated targets to be included in the NDCs and the NBSAPs.

Source: Author's own elaboration

Most developing countries' ambition in their NDCs hinge significantly on the availability of means of implementation and support, and for this reason they contain many elements that are conditional to receiving that support. However, the level of specificity that the GST provided on sectoral and systemic transformations detailed throughout this first section of the document, are not necessarily equally detailed or ambitious when it comes to its financial outcomes. Because of the absence of new and concrete signals and commitments in the GST outcome for enhancing support to developing countries in a way that is commensurate to their needs, it could be expected that most developing countries will wait until the outcome on the NCQG at CMA6 (Nov. 2024) before finalizing their new NDCs, and that the level of ambition in those NDCs will depend on that outcome.

Despite this lack of new and concrete financial commitments to support developing countries in the GST outcome, it did include significant financial elements that could serve as opportunities for further action, including for crafting an ambitious NCQG that responds to developing countries needs, as will be analyzed in the following section.



CLIMATE FINANCE IMPLICATIONS OF THE OUTCOME OF THE FIRST GST FOR THE GLOBAL SOUTH AND OPPORTUNITIES FOR CLOSING GAPS IN THE NCQG

02

As the world approaches COP29/CMA6, slated to be the 'finance COP' since it is the final year of negotiations of the NCQG, it becomes imperative to delve into the GST main climate finance outcomes, which we have distilled into five overarching themes, namely:

A. Relationship between fiscal space and climate action
B. Overall needs of developing countries
C. Innovative sources of funding
D. Climate Financial Disclosure and Management
E. Reform of the international financial system

The success of the forthcoming negotiations on the NCQG, depends on sustaining the momentum generated by the overall GST outcomes, including those for finance and amplifying the discussion of their particularities and applicability. Looking forward, this entails securing consensus among stakeholders to fortify a robust financial framework and its implementation at a faster pace and speed than ever before. This effort is particularly crucial given the imminent deadline for revised NDCs and LT-LEDS, both of which necessitate the provision of adequate financial resources for their actual implementation in developing nations. Hence, this section provides an assessment of these GST financial outcomes and their potential implications for the NCQG negotiations.

A. RELATIONSHIP BETWEEN FISCAL SPACE AND CLIMATE ACTION

In a context of constrained fiscal space to invest in climate action -e.g. the economies of the Vulnerable Twenty Group (V20), have already experienced a GDP loss of approximately 20%, approximately around $525 billion over the past two decades due to climate change (Act 2025, 2023)- and the urgent call from developing countries to avoid increasing their soaring levels of indebtedness -i.e. the developing world now faces a record amount of debt, amounting to

nearly USD 100 trillion in early 2023 (WB, 2023)-, including those related to climate finance; it is highly notable that the GST incorporated the notion of fiscal space when promoting scaling up the use of non-debt instruments, recognising "*a positive connection between having sufficient fiscal space, and climate action and advancing on a pathway towards low emissions and climate-resilient development… [and calling for] "new and additional grant-based, highly concessional finance, and non-debt instruments [as] critical to supporting developing countries, particularly as they transition in a just and equitable manner […]* " (UNFCCC, 2023a).

Fiscal space can be influenced by various factors, including economic variables such as growth, trade, FDI, debt levels, the ability to raise taxes and revenue from domestic and international actors and corporations, and ultimately, how effectively to manage public finances. Acknowledging that each country has a different baseline with regards to fiscal space, it holds significant importance as it dictates a nation's ability to allocate resources towards overall development, and to climate action initiatives specifically. Hence, fiscal space refers to "*a government's capacity to use a portion of its budget that enables the allocation of resources for a specific objective without compromising the financial stability of its position or the overall economy*" (Heller P., 2005).

Countries utilize fiscal policy to achieve their desired development goals, including those related to climate mitigation and adaptation, and/or loss and damage response. In many developing countries, high levels of public debt or budget deficits may constrain fiscal space, limiting the government's ability to invest in climate action initiatives. For instance, based on the World Bank International Debt Statistics released in December 2023, external sovereign debt in EMDEs (excluding China) surged nearly 2.5 times in 2022 compared to levels during the 2008 global financial crisis, rising from $1.27 trillion in 2008 to $3.1 trillion in 2022 (Zucker-Marques et al, 2024).

Specifically for climate finance purposes, it is worth noting that a significant portion of climate funds is provided to developing countries in the form of debt, e.g. in 2021 only, 80% of publicly declared climate financing consisted of loans and other non-concessional instruments (OX-

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FAM, 2020). Furthermore, there is a difference between concessional instruments (28%) and market-rate debt financing (35%) in relation to the rising debt burden. In terms of mitigation finance, where there is usually a business case for private investments, the energy (41%), buildings and infrastructure (28%) and transport (23%) sectors received more than 90% of resources on market-rate debt. Adaptation finance, on the other hand, has over 60% of market-rate debt coming mainly from national and multilateral DFIs, in front of 20% of concessional lending and 17% of grants (Buchner et al, 2023).

Policymakers worldwide are faced with the dilemma of addressing immediate economic concerns and prioritizing short-, medium- and long-term investments in climate action to ensure a sustainable and resilient future. These circumstances could be summed up in what has been called by the IMF as the "*trilemma*" between achieving climate goals, fiscal sustainability, and political feasibility (IMF, 2023a).

This scenario is usually worsened with elevated costs of capital derived from increasing vulnerabilities related to climate change, in turn acting as a deterrent to investments in climate-friendly initiatives, posing challenges for both businesses and governments aiming to transition towards sustainable practices. According to the econometric modeling of the SOAS University of London *"exposure to climate risks has increased the cost of debt for V20 countries by 117 basis points, on average. In absolute terms, that translated into more than USD 40 billion in additional interest payments over the past 10 years on government debt alone."* (Buhr et al, 2018)

Essentially, the acknowledgment of fiscal space as a facilitator of climate action renders the GST outcome a pivotal juncture for catalyzing a range of solutions to the multitude of variables surrounding the concept, including since it intersects with the challenge of addressing debt in developing nations.

It is also a reminder that the NCQG also offers a unique opportunity to offer a wider variety of financial instruments, including some that are not only focused on debt and that do not corner developing countries into a conundrum of balancing investments in climate initiatives while maintaining stable public finances amidst scrutiny from auditors. For example, innovative financial instruments have emerged to partly fill this gap, mobilizing resources, stimulating private sector investments, and facilitating the bridging of funding shortfalls (IDRC, 2023). Beyond traditional grants, there are some financial instruments of climate finance that are not debt related (such as policy-based guarantees and Special Drawing Rights from developed to developing countries (Pérez Caldentey & Villarreal 2023)) and can expand fiscal space in developing countries, empowering them to pursue ambitious climate objectives while fostering inclusive and equitable development. Also, there is the possibility to address debt sustainability through fostering different mechanisms that aim to reduce the debt burden and avoid the creation of additional debt while increasing fiscal space for climate action, such as:

- Debt relief, specifically targeting debts associated with fossil fuel projects, to facilitate the prompt deployment of energy infrastructure, mines, and drilling sites and with the condition that funds are reinvest-

ed directly into renewable energy initiatives and the establishment of a sustainable electricity grid to put the transitioning away of fossil fuels into action;

- Debt cancellation or deferral of debt payments for developing countries recently affected by extreme weather events so to release financial resources for the country's disaster response and recovery efforts;

- Debt-for-climate and nature swaps (C2ES, 2023).

Moreover, the NCQG could take on defining a level of concessionality for climate finance that responds to the urgency of climate action, and truly drives strategically public funding to leverage private resources in new, transformational investments in developing countries, including for "*managing risks and uncertainties related to emerging technologies and markets [...] and reforming the mandates of and metrics used by international financial institutions to allow for more, and more innovative, use of concessional finance [...] more flexibly based on the type of risks faced, and reforming eligibility requirements of concessional finance providers to ensure access for sectors and regions most in need*" (Buchner et al., 2023).

In general, strengthening the link between fiscal space and climate action in implementing this particular call by the GST outcome and as part of the definition of the NCQG is imperative for realizing the goals of the Paris Agreement and constructing a sustainable future for all (Klusak & Agarwala, 2022; IMF, 2023b).

B. OVERALL NEEDS OF DEVELOPING COUNTRIES

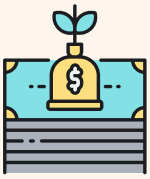
Following the same train of thought, developing countries not only have limited fiscal space but, as pointed out by the GST outcome, there is a *"growing gap between [their] needs, in particular those due to the increasing impacts of climate change compounded by difficult macroeconomic circumstances, and the support provided and mobilized for their efforts to implement their nationally determined contributions, highlighting that such needs are currently estimated at USD 5.8–5.9 trillion for the pre-2030 period"* and "*the adaptation finance needs of developing countries are estimated at USD 215–387 billion annually up until 2030, and that about USD 4.3 trillion per year needs to be invested in clean energy up until 2030, increasing thereafter to USD 5 trillion per year up until 2050, to be able to reach net zero emissions by 2050*" (UNFCCC, 2023a).

This is particularly relevant in relation to today's trends of provision and mobilization of support. Approximately $12 billion were pledged as fi-

nancial contributions to various climate funds during COP28, including for the Green Climate Fund ($12.83 billion), the Adaptation Fund ($187.74 million), the Special Climate Change Fund, the Fund for the Least Developed Countries ($179.06 million), and the Loss and Damage Fund ($792 million) (Thwaites, 2024). Nonetheless, these figures represent merely a fraction —approximately 0.2%— of the resources required to ensure adherence to NDCs.

One particular financial gap that is of great relevance to developing countries and must be addressed as part of the outcomes of the NCQG too is that of adaptation finance, not only because the previously mentioned pledges to existing Multilateral Climate Funds do not yet show the necessary doubling of adaptation finance as per commitments at COP26, but also, the GST *"notes with concern that the adaptation finance gap is widening, and that current levels of climate finance, technology development and transfer, and capacity-building for adaptation remain insufficient to respond to worsening climate change impacts in developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change"* (UNFCCC, 2023a)

The recognition of quantified values and magnitude of developing countries' needs in a scale of trillions of dollars, as well as the set of interconnected challenges and sectorial transformations derived from the GST outcomes is a really important hook for the negotiation of the quantum of the NCQG. This quantification aligns with various assessments from authoritative sources, including by the Standing Committee on Finance[20] -and its upcoming Second Report on the Determination of Needs of Developing countries related to Implementing the Convention and the Paris Agreement-, the Climate Policy Initiative[21] and the Independent High-Level Expert Group[22]. While the precise



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20 USD 6 trillion per year for NDCs for the pre-2030 period.

21 USD 10 trillion per year from 2031 to 2050.

22 Emerging markets and developing countries other than China will need to spend around USD 1 trillion per year by 2025 and around $2.4 trillion per year by 2030.

value may vary, all these assessments underscore the glaring insufficiency of funding, as well as the fact that both current and future climate action demand exponential growth in financial resources, necessitating the mobilization of trillions of dollars over the coming decades; anything below this scale of quantum for the NCQG would fall short of meeting the requirements of the said transformations.

C. INNOVATIVE SOURCES OF FUNDING

In this setting, it is particularly relevant that the GST prioritized certain sources of funding that can help address some of the financial challenges faced by developing countries, thus appealing for *"accelerating the ongoing establishment of new and innovative sources of finance, including taxation, for implementing climate action and thus enabling the scaling down of harmful incentives"* (UNFCCC, 2023a). Different sources of funding and regulations play a pivotal role in driving climate action by providing the necessary incentives for businesses, governments, and individuals to adopt sustainable practices. The GST recognition of these specific subcategories lays a crucial groundwork for forthcoming NCQG negotiations.

The GST outcome signals two specific types of innovative sources of funding complementary to traditional mechanisms, namely taxation and reduction of harmful incentives, hence marking a strategic distinction from regular avenues for international collaboration and moving towards a combination of international and national tools that can help foster climate ambition pertinent to the NCQG content.

Taxation has gained traction as a global approach to climate finance access. During the 2023 Africa Climate Summit, participants called for global carbon taxes to be used in the fight against climate change, in particular, the African Leaders Nairobi Declaration called upon global leaders to support the idea of implementing *"a global carbon taxation system, which would encompass levying carbon taxes on fossil fuel trade, maritime transport, and aviation"* (AU, 2023).

Furthermore, there are 73 examples of carbon pricing[23] already in place at national, subnational and regional levels either in the form of carbon taxes or emissions trading systems (ETS) covering 23% of global GHG emissions and ranking among the most effective strategies to raise revenues and enhance mitigation action. In the context of the abovementioned *"trilemma"* of climate action, fiscal sustainability, and political feasibility, it stands out that these mechanisms raised about USD 100 billion in

23 Those that provide a clear price signal with the aim of reducing GHG emissions

revenues in 2022, and almost 40% of these were earmarked for green spending and 10% used to compensate households or businesses (World Bank Group, 2023).

It is estimated that the recommended direct carbon price levels for the implementation of the Paris Agreement should be in average of USD 50 - 100 per tCO2e by 2030 (World Bank Group, 2019), or otherwise, the marginal abatement costs of carbon are around USD 90 per tCO2 by 2030 (Riahi, et al. 2022). However, less than 5% of global GHG emissions are at or above these recommended price levels (World Bank Group, 2023). Hence, the kind of systemic transformation that could be provided by the NCQG to deliver on 1.5°C trajectories can include a clear signal as to how to pursue carbon pricing mechanisms that set the correct market indications for 1.5°C trajectories.

On the other hand, the clearest form of harmful incentives to climate action are subsidies to fossil fuels, which persist as a significant aspect of energy policy worldwide, despite increasing recognition of the adverse environmental and economic impacts associated with their use. Fossil fuel subsidies constitute a negative indirect carbon price, which counteracts the positive price signal from direct and indirect carbon pricing instruments (World Bank Group, 2023; Garsous et al, 2023).

Fossil fuel subsidies often take various forms, including direct financial support, tax breaks, or favorable regulations, aimed at lowering the cost of fossil fuel production, consumption, and exploration. While initially intended to stimulate economic growth, ensure energy security, and maintain affordability for consumers, fossil fuel subsidies frequently result in distortions within energy markets, perpetuating inefficiencies and hindering the transition to cleaner and more sustainable energy sources (IMF, 2022). Moreover, these subsidies often exacerbate environmental degradation by encouraging overconsumption of fossil fuels, contributing to greenhouse gas emissions, air pollution, and other environmental harms**.** Despite growing calls for their reform or elimination, fossil fuel subsidies persist in many countries due to entrenched interests, geopolitical considerations, and concerns about potential adverse impacts on employment and economic stability. Addressing these subsidies is essential for promoting a shift towards cleaner energy alternatives, mitigating climate change, and achieving sustainable development goals on a global scale (Cooper, 2023). According to the IEA, fossil fuel subsidies hit an all-time high in 2022, rising beyond USD 1 trillion, and doubling compared to their 2021 levels (IEA, 2023d).

In the same line of recommendations on carbon pricing mechanisms, there is an obvious opportunity for the NCQG to drive changes in the financial system through addressing the need for socially-responsible reforms to fossil fuel subsidies to be redirected to climate action and untap additional climate financial resources. It is to be noted that, as explained in the first section of this document, balancing growing energy demand, economic stability and replacing fossil fuels is a multidimensional challenge. Likewise, reforming fossil fuel subsidies is not a measure that can be taken on its own and most definitely not without taking into account potential social and economic adverse consequences of its implementation. Hence, our focus on

recommending socially-responsible reforms which aim to rebalance the current undermining of positive incentives through harmful ones and redirecting funds towards poverty alleviation programs, and economic development incentives, as subsidies disproportionately benefit the wealthiest sectors of society (Cooper, 2023). According to the IMF (Black et al., 2023), eliminating explicit fossil fuel subsidies coupled with the implementation of a carbon tax, could yield a significant reduction in CO2 emissions, slashing them by 34% below 2019 levels.

D. CLIMATE FINANCIAL DISCLOSURE AND MANAGEMENT

The outcome of the GST marks the first time a COP decision calls on different financial stakeholders— *"governments, central banks, commercial banks, institutional investors and other financial actors [...]* ***to improving the assessment and management of climate-related financial risks****, ensuring or enhancing access to climate finance in all geographical regions and sectors, and accelerating the ongoing establishment of new and innovative sources of finance "* (UNFCCC, 2023)**.** However, this challenge is not new to financial stakeholders, and many jurisdictions have been preparing for it for some time. Since 2017, the Task Force on Climate-related Financial Disclosures (TCFD)[24] has recommended that companies in the private sector voluntarily disclose information about their climate-related risks and opportunities. **Climate disclosure, which can impact financial performance and value, involves companies first assessing and managing these risks for effective reporting**.

The essence of climate financial disclosure lies in the transparent communication of climate-related information, including aspects such as greenhouse gas emissions, exposure to climate risks (physical and transition), and strategies for climate change mitigation and adaptation. Through such disclosures, the assessment of risks, formulating effective management strategies, and disclosing their actions, companies enhance risk management practices and show their commitment to resilience, benefiting both the companies and their stakeholders (TCFD, 2023). Furthermore, this transparency aligns private financial flows with the goals of the Paris Agreement by enabling companies and financial institutions to understand climate opportunities, not only facilitating the financing of climate change adaptation and mitigation measures, but allowing redirecting investments towards less carbon-intensive assets.

24 Until 2023, the TCFD operated as an initiative originally promoted by the Financial Stability Board and adopted by national regulators. These recommendations served as the basis for the definition by the International Sustainability Standards Board (ISSB) of the International Financial Reporting Standards (IFRS) Foundation of the sustainability disclosure standards S1 and climate-related S2. Thus, starting in 2024, the IFRS will assume the monitoring tasks of the information reports that the TCFD had been carrying out until then.https://www.ifrs.org/news-and-events/news/2023/07/foundation-welcomes-tcfd-responsibilities-from-2024/

The call for climate risk assessment and management by private stakeholders in the GST outcome is crucial because the success of climate risk management relies on regulation as an enabler of disclosure and assessment of climate risks. Policymakers and regulators are exploring strategies to mandate or incentivize companies to disclose climate-related information as part of their financial reporting obligations. By integrating climate disclosure requirements into regulatory frameworks, policymakers aim to augment market transparency, facilitate risk evaluation, and foster climate action across various sectors (University of Oxford, 2023.) This will ultimately help maintain or enhance access to climate finance.

Although regulation serves as an effective tool to mobilize the integration of climate considerations into business practices, it is also important for organizations to look beyond mere compliance requirements and adopt a transformative approach by committing to develop business models resilient to climate change (TCFD, 2023). As practices related to climate disclosure continue to develop, collaboration among governments, businesses, investors, and civil society will be indispensable for driving substantial progress toward a low carbon more sustainable and resilient future, therefore, this particular GST signal is relevant to further and more specific benchmarks through the NCQG negotiations for different financial stakeholders to marshall their efforts in alignment with the implementation of the Paris Agreement.

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The disclosure of information related to climate risk has transitioned from a voluntary practice to a mandatory requirement in some countries, reflecting the need for greater corporate awareness of the financial impacts of climate change and the potential impact in their business strategy and resilience in the mid- and long-term (Robertson et al, 2024). It is hoped that the GST outcome might encourage not only the private sector to voluntarily improve the assessment and management of climate-related financial risks, but more jurisdictions to adopt mandatory climate risk disclosure regulations, thereby promoting global climate risk management and transparency.

BOX 4: THE CLIMATE DISCLOSURE EXPERIENCE OF LATIN AMERICA THROUGH CCADI AND LACADI

- The Latin American Climate Assets Disclosure Initiative (LACADI) and the Colombian Climate Asset Disclosure Initiative (CCADI), advocate and build capacities for the integration of climate change opportunities and risks into the investment strategies and financial risk management processes of the financial sector. These initiatives have been developing over some years and function as platforms for institutional investors and financial sector actors to receive tailored technical assistance in enhancing their knowledge and capabilities. The primary aim is to facilitate the exchange of knowledge and the improvement of skills among institutional investors and financial system actors while cooperating with relevant initiatives and stakeholders to invigorate the implementation or refinement of existing financial sector regulations. Ultimately, these initiatives aim to encourage the consideration of climate change opportunities and risks in investment decisions, offering resources and fostering a collaborative environment to aid the financial sector's transition toward a low carbon and resilient economy (LACADI, 2023).

- The experience behind LACADI and CCADI has allowed the understanding of key aspects on the path towards climate disclosure, concluding that achieving disclosure reflects broad integration and a deep understanding of climate risks at all levels of the organization. The importance of high-level governance involvement from the initial stages of climate-related planning and implementation is emphasized, as cases of late involvement resulted in sustainability areas facing additional difficulties in garnering necessary attention and assigning required importance to climate strategy implementation. To this end, capturing the interest of boards of directors and the C-suite or executive management proved more effective by presenting direct relationships and concrete examples of climate issues applied to their products, customer types, business lines, and strategic objectives rather than from a scientific or general perspective of climate change.

- It has been common to find organizations that continue to address climate change exclusively through the lens of environmental impact, omitting recognition of climate change risks as direct and indirect causes of various financial and non-financial risks at the enterprise level. This has posed a challenge for integrating climate issues within the overall risk management framework of organizations, as activities for identifying, evaluating, and managing risks remain isolated milestones and are not part of properly documented and approved cyclical processes (CCADI, 2023).

- These initiatives showcase the benefits of requiring companies to disclose climate-related risks. When done conscientiously, disclosure transforms companies through climate risk management, promoting the alignment of financial flows with the Paris Agreement goals and facilitating climate-related financing. The GST outcome emphasizes the need for improved climate risk management and assessment. By adopting mandatory regulations, more companies can be encouraged to join this collective transformation, ultimately contributing to a low carbon and climate resilient.

Source: Authors´ own elaboration

E. REFORM OF THE INTERNATIONAL FINANCIAL SYSTEM

The scale of needs for the implementation of the Paris Agreement and the system transformations derived from the first GST depicted above, also demand a concomitant financial response. In a world where there is "*sufficient global capital and liquidity to close the necessary climate investment gaps*" (IPCC, 2023b), it is clear that the commitments of different financial stakeholders need to be stepped up so that every financial decision internalizes climate change both as a risk or an opportunity, as suggested in the previous section, but also, that the international financial system as a whole must take a proactive stand so to make climate change part of its decision-making processes for the short, medium and long-terms and align all financial flows to low-emissions, climate resilient investments.

However, the current international financial system was designed to respond to past necessities of the global economy, since most development financing institutions were established in the aftermath of the Second World War, and at the present moment, they no longer meet current needs or address emerging crises, exacerbating the gap between North and South countries and hindering the response to climate, social, and debt urgencies (Salinas, 2024).

The concrete reference of the GST to this matter puts a clear emphasis on how this reform could potentiate development efforts and at the same time scale up climate finance to effectively address the objectives of adaptation, mitigation, and loss and damage set forth by developing nations as primary 21st-century priorities, by underscoring "*the importance of reforming the multilateral financial architecture, inter alia, multilateral development banks, acknowledging the updated vision statement by the World Bank to create a world free of poverty on a livable planet and by the multilateral development banks to strengthen collaboration for greater impact, and calling on their shareholders to expeditiously implement that vision and continue to significantly scale up the provision of climate finance in particular through grants and concessional instruments*" (UNFCCC, 2023a).

There are initial steps to reform this international system including in relation to the performance of the IMF and the World Bank (through the Capital Adequacy Framework-CAF), and the governance of development international institutions and Multilateral Development Banks (MDBs), as well as discussions on reforming the global debt framework and advancing progress on global levies and taxes.

As a case in point, the G20 is working directly "to deliver better, bigger and more effective MDBs by enhancing operating models, improving responsiveness and accessibility, and substantially increasing financing capacity to maximize development impact [...] to mobilize financing from all sources for a quantum jump from billions to trillions of dollars for development [... with] initial CAF measures [to] potentially yield additional lending headroom of approximately USD 200 billion over the next decade [and a] landmark achievement of the global ambition of USD 100 billion of voluntary contributions (in SDRs or equivalent) and USD 2.6 billion of grants in pledges for countries most in need and call for the swift delivery of pending pledges [and] look forward to further progress on the exploration of viable options for voluntary channeling of SDRs through MDBs, while respecting relevant legal frameworks and the need to preserve the reserve asset character and status of SDR." (G20, 2023)

Moreover, an Independent Expert Group commissioned by the Indian G20 Presidency last year recommended an agenda of reform for the MDBs to triple annual sustainable lending levels to $390 billion per year by 2030 ($300 billion non-concessional and $90 billion concessional) through:

a) support transformative programs in client countries by co-creating multiyear country platform programs rather than individual projects so to provide clarity on the policy and financial conditions for investments, streamlining business processes, and collaborating with each other and with local and foreign investors;

b) take on and manage risk effectively, including in engagements with the private sector by developing a whole-of-MDB strategies to scale up private finance, with clarity on additionality and impact and broadening and innovating risk sharing instruments to mobilize private capital, including a much scaled up Multilateral Investment Guarantee Agency - MIGA; and

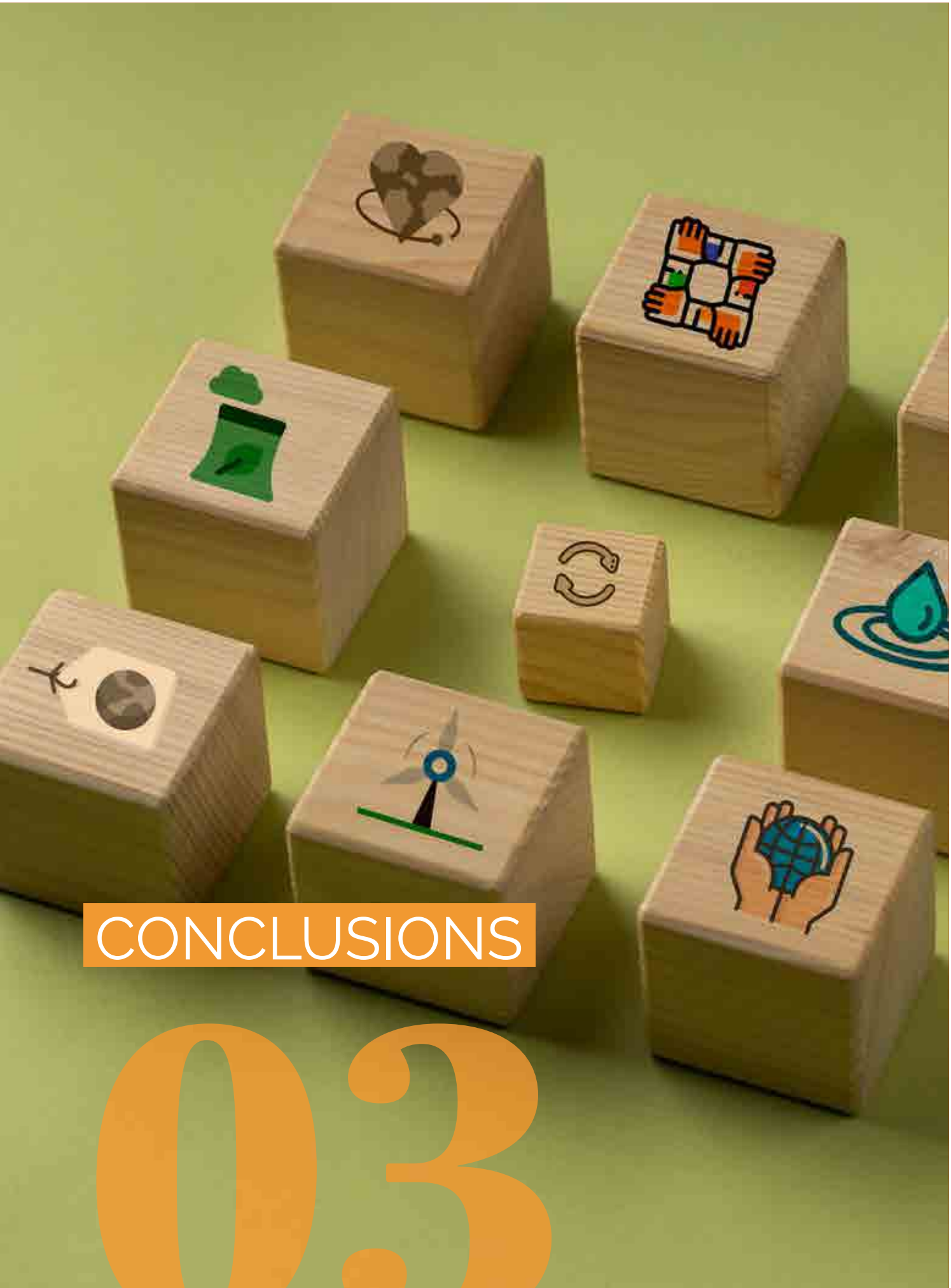
c) help clients reach the scale needed to deliver economy-wide results quicker by aggressively pursuing hybrid capital and bridge to capital increases in long-term and soliciting larger concessional contributions for IDA-eligible countries and for GPG linked concessional facilities with access for MICs. (Shanmugaratnam, et.al., 2023)

It is evident that many of these processes, initiatives[25] and recommendations for international financial reform, speak directly to many of the financial constraints that developing countries face in the "trilemma" of climate action, fiscal sustainability, and political feasibility, and to some of the identified solutions to these conundrum, including fostering non-debt instruments, such as guarantees and SDRs. Nonetheless, the rhythm of change is significantly slow, with the latest Spring Meetings of the WB and IMF only showing minimum change and great amounts of protectionism which show incremental change and bureaucratic inertia rather than paradigmatic reform.

The UNFCCC climate finance regime and, consequently, the potential outcomes of the NCQG negotiations are one part of the complete financial ecosystem. There are several negotiation proposals for this goal that are looking to contextualize the new goal/s as part of this wider panorama, in particular those references by developed countries to the definition of "a global investment target". If some of the G20 objectives and recommendations actually drive additional hundreds of billions of dollars into the climate finance mix (i.e. up to $490 billion on concessional and non-concessional loans and SDRs), the IFA reform could be part of the specific content of the NCQG. However, it is to be noted that almost 80% of these proposals still put a very clear focus on continue using debt-instruments, the overarching objectives of the said reform are not exclusively related to climate finance or to drive climate action, and none of the financial stakeholders of these reforms are obliged whatsoever to the Paris Agreement or will have to abide to the results of the NCQG, making transparency and accountability of the climate portion of the reform a very complex task for the future.

In conclusion, it is fundamental to continue pushing for this reform to happen and for the modernization of the IFA, also as a way to operationalize the complete alignment of financial flows of DFIs and MDBs to low emissions, climate resilient pathways, as stated by the GST, but the direct relationship of this reform with the negotiations of the NCQG pose some challenges as to how this can fit into the definition of the goal/s.

25 The Paris Pact for People and the Planet of June 2023 outlining a roadmap for advancing IFA reform; the Global Expert Review on Debt, Nature and Climate initiated at COP28 by Colombia, France, Germany, and Kenya; and the International Task Force on Taxation, are some of the different initiatives tackling this reform.



CONCLUSIONS

03

The outcome of the first GST sends signals to countries on actions on adaptation, mitigation and responding to loss and damage that need to be taken urgently in this critical decade and beyond in order to remain below the 1.5°C threshold and ensure a climate resilient development for all.

These signals, which imply deep and rapid transformations in countries' economies and societies, bring enormous opportunities but also challenges, especially for developing countries -those historically less responsible for GHG emissions and, at the same time, those most vulnerable to the impacts and risks of climate change and with less capacity to address it. Those challenges include aspects such as: diversifying their economies while ensuring a just energy transition to communities reliant on the fossil fuel industry and safeguarding those that could be affected by the extraction and processing of critical minerals and in the face of protectionism; guaranteeing energy access for their populations and adequate infrastructure for the transition, investing in the decarbonisation of their power systems and in climate-resilient key infrastructure systems such as sanitation, water, health, transport, communications and energy; tackling the multiple social and economical drivers of deforestation; improving climate and weather observations and access to climate science information; establishing reliable multi-hazard early warning systems and climate information services; being capable to respond to losses and damages from climate change; and having financial resources available to ensure these transitions take place. While information about challenges and solutions is abundant and widely accessible regarding mitigation in the energy sector, there is a need for more research and systematization of such information in areas such as mitigation of the land use sector, sectoral and dimensional adaptation targets, and the different stages of responding to loss and damage.

The Paris Agreement established an architecture for all countries to contribute with ambitious efforts to the global response to climate change in a nationally determined way and in the context of sustainable development and efforts to eradicate poverty. One of the challenges of the climate change regime as a whole is to enable the creation of adequate conditions for developing countries to participate ambitiously in this global response without putting them in a position where they are forced to choose between making climate ac-

tion part of their sustainable development and poverty eradication strategies, or having to prioritize between climate action or any other option that enables them to meet their most pressing needs in terms of economic development and poverty eradication. Means to create these conditions include the provision and mobilization of finance and the provision of technology transfer and capacity-building support from developed countries to developing countries, international cooperation, and signaling to different stakeholders outside the international climate change regime how they can contribute in particular from the private and the financial sectors.

The reality today is that many developing countries have very constrained fiscal space to invest in climate action due notably to the soaring levels of indebtedness they are facing, and depend on international climate finance and investments to contribute more ambitiously to the achievement of the purpose and long-term goals of the Paris Agreement. This is worsened by the fact that the increasing vulnerability to climate change makes the costs of capital rise in these countries and that the majority of international climate finance has flown to developing countries in the form of loans and other debt-generating financial instruments. Furthermore, there is an overwhelming finance gap in the order of trillions of dollars between the climate finance needs of developing countries and the international climate finance flows to these countries.

In spite of this reality faced by developing countries, the GST outcome failed to include any new and concrete commitment to tackle their debt constraints and provide them with up-scaled financial support at the speed and scale required for the transition to a 1.5˚C aligned and climate resilient development. However, it did include at least five significant financial elements that should inform the negotiations of the NCQG and be further developed with a systemic approach by the decision to be taken in November 2024. These elements refer to: 1. the relationship between fiscal space and climate action; 2. the overall needs of developing countries; 3. innovative sources of funding; 4. climate financial disclosure and management; and 5. the reform of the international financial system. None of these elements will solve the climate financial gaps on its own, but they are part of a broader ecosystem of solutions that must be marshaled through the NCQG to foster greater delivery of actions throughout the developing world.

Even though the quantum is a central part of the determination of the new goal, there are many other variables that have to be considered when crafting the NCQG in order to avoid indirect negative consequences to developing countries, such as increasing their debt burden through climate-induced debt, and in order for the NCQG to ensure the smooth flow of climate finance to these countries at the speed and scale required, and in direct relationship to the many challenges derived from the full implementation of the sectorial and systemic transformations enunciated by the GST. For this reason, consideration of the five elements mentioned above in a synergistic manner will be an important element for designing an NCQG that is fit for purpose and sending a powerful signal to developing countries for raising ambition in their forthcoming new or revised LTS, revised 2030 targets in their NDCs and next round of NDCs with targets to 2035.

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