

# Connecting Global Stocktake outcomes and COP28 workstreams

Harald Winkler, Charlene Watson and Preeti  
Bhandari



# Connecting Global Stocktake outcomes and COP28 workstreams



Harald Winkler, Charlene Watson and Preety Bhandari

June 2024

© FWG, 2024

Cite as: Winkler, H., Watson, C., and Bhandari, P. (2024) "Connecting Global Stocktake outcomes and COP28 workstreams." Finance Working Group.

Download the report



<https://odi.org/en/publications/connecting-GST-outcomes-and-COP28-workstreams>





## About the Finance Working Group

The Finance Working Group (FWG) is an open partnership bringing together a range of expert perspectives from the global north and south on the progress made toward financing climate action. The FWG aims to support the official UNFCCC processes as they relate to finance and is organised around two complementary themes: the provision of support to developing countries to mitigate and adapt to climate change and the consistency of finance flows with low-emission, climate-resilient development, as outlined in Article 2.1(c) of the Paris Agreement.

## About the Authors

Author contributions: This article was written collaboratively by Harald Winkler (HW), Charlene Watson (CW) and Preeti Bhandari (PB). HW and CW conceptualised the paper; HW led drafting, with substantive inputs by CW and PB.

**Harald Winkler:** Policy Research in International Services and Manufacturing, School of Economics, and associate African Climate and Development Initiative, University of Cape Town, SA [harald.winkler@uct.ac.za](mailto:harald.winkler@uct.ac.za)

**Charlene Watson:** Senior Research Associate, ODI, London, UK

**Pretty Bhandari:** World Resource Institute, Washington, D.C., USA

## Acknowledgements

Artificial Intelligence (AI) tools: In writing this paper, we employed various AI tools. However, the core ideas, analysis, and authorship of this paper are entirely our own. No text was directly copied from AI, but some parts of our draft were checked for clarity and readability, and results checked and edited by us.

The authors gratefully acknowledge the review of Alejandra Lopez, Anushree Tripathi and Katia Simeonova, the comments of which strengthened the paper, as well as the Climate Emergency Collaborative Group for their generous support.



# Contents

Contents	4
+ Figures	5
+ 1. Executive summary	1
+ 2. Introduction	5
+ 3. Analysing connections in the first GST decision and with COP28 actions	7
3.1. What is the GST and how does it relate to other COP28 workstreams?	7
3.2. Cross-cutting connections: ambition, based on equity and science	11
3.3. Mitigation connections: ambition, equity and response measures	12
3.4. Adaptation connections: targets in the Global Goal on Adaptation framework, resilience, building the information base, touching on equity and filling the adaptation finance gap	19
3.5. Finance connections: obligations and flows for mitigation, adaptation and loss and damage lacked ambition and equity	23
Financing climate action	23
Technology and capacity-building	27
+ 4. Action on decisions: implementation of the GST decision nationally and internationally	30
4.1. Implementation in the UN climate regime	30
4.2. Next steps for countries: NDCs and BTRs	33
4.3. The broader landscape of climate responses and finance	36
International cooperative initiatives (ICIs): emergence, potential and accountability	36
ICIs for scaling up finance for climate action	37
Implementing reform of international financial architecture	38
+ 5. Conclusion	40
+ References	42

## + Figures



Figure 1 Global Stocktake: broad scope of topics, cross-cutting issues and long-term goals of Paris Agreement	8
Figure 2 Identifying connections in substance within the Global Stocktake and to other COP28 workstreams	9

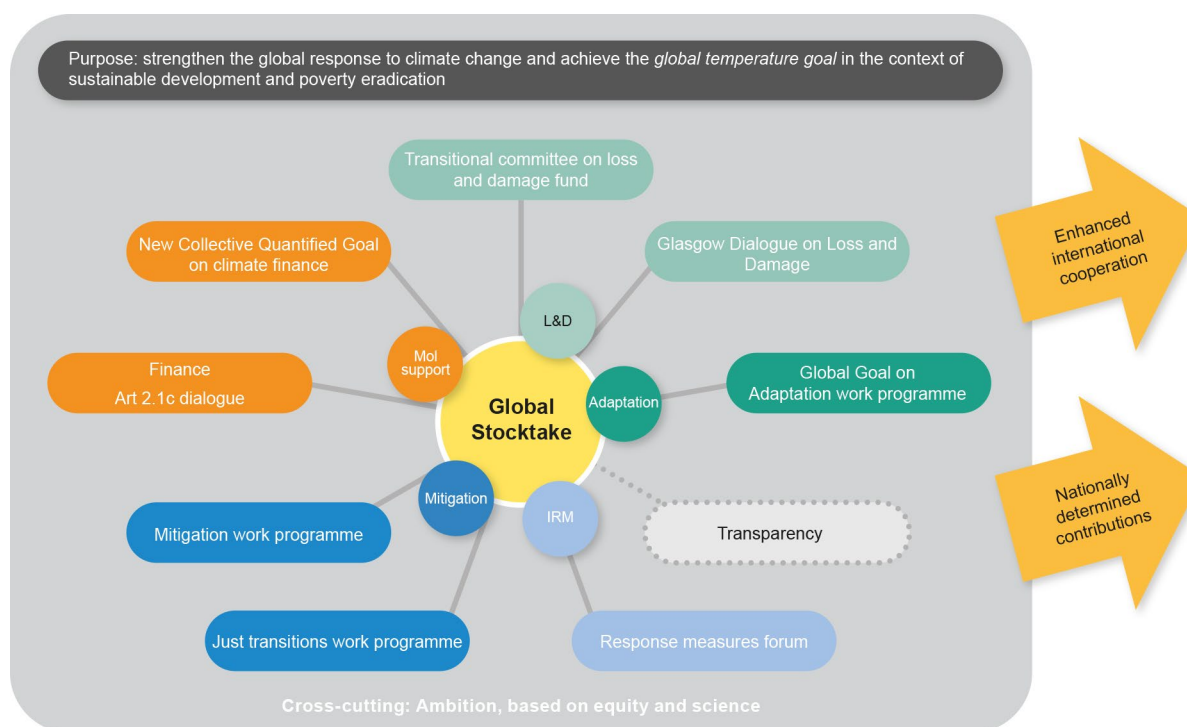
# + 1. Executive summary



The true test of the landmark UAE Consensus from COP28 in 2023 will lie in the implementation of its decisions, not just its ambitious language. This paper focuses on the core of the Consensus: the outcome of the first Global Stocktake (GST). Established in Article 14 of the Paris Agreement, the GST seeks to take stock of action and support to inform greater ambition towards a global climate response in an equitable manner and in the context of sustainable development and poverty alleviation. We analyse connections within the first GST, and between the GST and other COP28 workstreams, as a critical basis for understanding the next steps for country Parties to the Paris Agreement. Based on a nuanced understanding of the GST decision, we argue for integrated approaches in turning COP28 outcomes into action, with much-needed support to do so in developing countries. This understanding will be critical to not only implement the outcomes of the first GST, but also to prepare for GST2, which starts at the end of 2026 and concludes at the end of 2028.

We identify three kinds of connections in understanding the complex set of decisions from Dubai that form the basis of the UAE Consensus. Outlined in Figure ES1, the connections analysed in this paper are those that are: i) inherent in the design and nature of the GST cutting across all topics; ii) those that aid in understanding the GST decision in the context of wider COP28 decisions; and iii) those that can guide the implementation of more ambitious and equitable climate action.

Figure ES1 Identifying connections in substance within the Global Stocktake and to other COP28 workstreams





The first inherent connection we identified is that equity and science are foundational to all aspects of climate ambition. Ambition, based on equity and science, is therefore an inter-connected triad that must guide implementation, across the full scope of topics in the GST and other COP 28 decisions. Second, and relatedly, topics are inherently connected, notably that less mitigation action will increase the need for adaptation and action to avert, minimise and address loss and damage, both entailing higher costs due to mitigation inaction.

To understand mitigation in a more integrated way, the paper identifies connections within the GST and between the GST, the Just Transition Work Programme and the Mitigation Work Programme. The GST decision acknowledged there has been an increase in mitigation ambition since the Paris Agreement, while also emphasising that more is needed to achieve the long-term global goal on mitigation. The GST decision calls for countries to contribute to a wide range of global mitigation efforts, including transitioning away from fossil fuels, based on equity and science. This is an object lesson in how a key measure for mitigation ambition – moving away from coal, oil and gas – is connected to equity and science and to long-term perspectives (net zero emissions), while urging acceleration now. In contrast, the Mitigation Work Programme decision was largely procedural and less detailed on mitigation measures and targets. Ambition in implementing domestic mitigation measures, however, is limited by low ambition for financing mitigation in developing countries.

Ambition in mitigation was also limited by a partial treatment of equity, focused mainly on just transitions. The engagement of the GST decision with just transitions created an important connection to the JTWP. However, financing for just transitions is, thus far, not taken further in the climate regime, unless the JTWP takes it up. This suggests that enabling greater mitigation ambition will require integrated ways to strengthen finance.

Furthermore, mitigation by some countries may have impacts on other countries. This is referred to in the climate regime as the impacts of the implementation of response measures (IIRM), or simply response measures. While not elaborated in the GST decision, the technical process of the GST identified options for economic diversification that connect response measures to broader conceptions of mitigation.

The adaptation component of the GST decision was deeply connected to the Global Goal on Adaptation, with parallel processes over the two years preceding COP28. The COP28 decision on the GGA framework established 11 global targets for adaptation, and initiated work on a new Framework for Global Climate Resilience (FGCR) that will establish indicators to track progress towards these targets. This, in turn, strengthened the GST decision on adaptation. The GST decision and GGA are connected through identical targets for implementation that emerged from the GGA framework. The indicators to track progress towards these targets will be developed in the next two years and will increase the information base for adaptation.

Equity in adaptation is less clearly understood than in mitigation. However, we point to the opportunity for developing better understanding of just resilience in the JTWP as a concept that also emerged in the technical dialogues of the first GST.

The GST decision highlighted the adaptation finance gap, but did little to fill that gap. The GST decision referred only to the ongoing desire to double small amounts of adaptation finance provided to developing countries by developed countries. Furthermore, while COP28 delivered a loss and damage fund, based on the work of the Transitional Committee, capitalising the fund must deliver hundreds of billions to meet the needs of developing countries. The negotiations to establish a New Collective Quantified Goal (NCQG) on climate finance by 2025 will need to heed the signal sent from the GST to bridge the adaptation finance gap and seek adaptation implementation, as well as to deal with the gaps, including in finance, that exist in responding to the increasing scale and frequency of loss and damage.

The GST assessed finance obligations and flows, in an inter-connected manner. The GST considered finance obligations from developed to developing countries and broader finance flows for climate action in an integrated manner. The GST technical dialogue connected discussions on the longstanding obligations of developed countries to provide and mobilise finance for developing countries with the need to leverage finance flows from a range of actors, and the need to take actions for such flows to be more consistent with pathways towards low-emission, climate-resilient development (Article 2.1c). The GST decision conveys that the collective pursuit of Article 2.1c is complementary to and not a substitute for Article 9 of the Paris Agreement, which outlines developed country finance obligations. This year will be crucial to deliver on the provision and mobilisation of finance for mitigation, adaptation and loss and damage in developing countries, in a balanced manner and at a scale commensurate with keeping 1.5°C in reach. We argue that an integrated approach to finance for climate actions can be taken forward in agreeing the NCQG in 2024, in support of implementation of developing countries' NDCs and NAPs, and continuing a dialogue on Article 2.1c in 2024 and 2025, as well as linking to efforts towards the reform of the international finance system to better work for climate and development.

We also discuss two fundamental requirements for climate action, technology and capacity-building, neither of which was prominent in the GST decision. The GST decision does establish the Technology Implementation Programme, to strengthen support for the technology priorities of developing countries. While GST technical discussions highlighted the importance of a needs-based approach to capacity-building, which should be implemented in several longstanding agenda items on capacity-building and through constituted bodies. This gap should be remedied for the second GST (GST2).

The litmus test of ambition is in its implementation. In Section 3, we elaborate that acting on the GST decision requires both national implementation by countries, and international implementation, both in the UNFCCC and in the broader multilateral landscape. Within the UN climate regime, a clear modality for better sequencing and coordination would help guide strategic interventions starting now, and in GST2. Countries must take the GST



decision into account as they prepare their second Nationally Determined Contributions (NDCs), due in early 2025 covering climate actions in 2031–2035. In 2024, countries submit biennial reporting on progress, and such national transparency bolsters the GST. The GST decision has implications for improving transparency, which can help countries include loss and damage information, improve adaptation action and track progress in mitigation measures. Developing countries will need support for capacity to report, however, as well as support for implementation, and this underscores the importance of finance (in 2024, and beyond). While international initiatives can enhance climate action, accountable initiatives among finance actors could also lead to increased finance flows that will complement and not substitute for the provision of international public climate finance from developed to developing countries. This international cooperation, including in the reform of the international financial architecture, would enable more implementation of climate action across the board. We argue that implementation needs to be interconnected: in turning decisions into actions, with increased support (see Section 3), we should build on the understanding of connections.

The future of our people and planet hinges on implementing the Paris Agreement. This paper unpacks a number of complex connections that make up the UAE Consensus, seeking to provide a more nuanced understanding of how a wide range of actors can engage with its outcomes. Urgent action and support are required, individually and collectively, to achieve the goals of the Paris Agreement and effectively respond to the climate crisis.

## + 2. Introduction



The subject of climate finance has become increasingly critical in our collective efforts to address the climate crisis. The recent COP28 negotiations<sup>1</sup> resulted in the so-called ‘UAE Consensus’.<sup>2</sup> The Consensus has great potential for ambition, but its full implications will only become clear once all its decisions are turned into increased climate action and support. The climate crisis requires urgent action, yet the challenges are complex and deeply connected to development.

At the core of the Consensus is the outcome of the first Global Stocktake (GST), referred to in this paper as the ‘GST decision’.<sup>3</sup> The GST was established in Article 14 of the Paris Agreement (UNFCCC, 2015b). It seeks to take stock of action and support to inform greater ambition towards a global climate response in an equitable manner and in the context of sustainable development and poverty alleviation. The GST assessed a broad scope of topics and cross-cutting issues, as illustrated in Figure 1. In addition to the GST, the Consensus includes the UAE Just Transition Work Programme (JTWP), as well as decisions on the Mitigation Work Programme (MWP), the Global Goal on Adaptation (GGA), and on a loss and damage fund (further detailed in Section 2). While COP28 addressed a number of agenda items, this paper focuses on those most prominent in the UAE Consensus. We analyse the complex connections within the GST and other COP28 workstreams in order to provide a critical foundation for guiding future strategies towards climate action in an integrated and impactful way.

The GST process is critical to encourage increases in collective climate action and support for such action. A two-year process, gathering information, creating a technical synthesis report and then developing the GST decision, the first GST concluded at COP28. If the first GST process had failed, this would have threatened the credibility of the Paris Agreement: a legally binding multilateral treaty on climate change based on national contributions of action and support. The Agreement is our best way of increasing ambition on climate change, as well as taking seriously science and equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

---

<sup>1</sup> COPs are annual deliberations by Parties to the United Nations Framework Convention on Climate Change (UNFCCC), the abbreviation stands for ‘Conference of the Parties’, and is the body that takes decisions relevant to the Convention. The Paris Agreement has a CMA, the ‘Conference of the Parties serving as the meeting of the Parties to the Paris Agreement’, and takes decisions relevant to the Paris Agreement. The meetings are typically referred to by COP number, e.g. ‘COP28’ in UAE, even though the CMA meets at the same time. The decision on the GST is decision 1/CMA.5, numbered as the first decision of the fifth CMA, however, this and other CMA decisions are referred to collectively as ‘COP28 decisions’.

<sup>2</sup> <https://unfccc.int/cop28/outcomes>.

<sup>3</sup> In this paper, we refer to the decision on the GST outcome, 1/CMA.5, as the ‘GST decision’ (UNFCCC, 2023f).



The climate action stimulated by the first GST is perhaps the last chance to keep the 1.5°C goal within reach, given long delays and limited time to act. The overall key technical finding of the first GST synthesis report was not surprising. The Paris Agreement has driven climate action globally, set norms and contributed to bringing down expected global temperature increase of 4°C to between 2.1°C and 2.8°C. Yet, we are far from a livable world for all (UNFCCC, 2023f). It was this and other key findings from the technical report of the first GST that formed the basis of a political process of negotiating a GST decision in UAE (UNFCCC, 2023f).<sup>4</sup>

'Key finding 1: since its adoption, the Paris Agreement has driven near-universal climate action by setting goals and sending signals to the world regarding the urgency of responding to the climate crisis. While action is proceeding, much more is needed now on all fronts' (UNFCCC, 2023j).

Whether the first GST is a success will depend on the implementation of its outcome decision as captured in the UAE Consensus. Given the broad scope of the GST, it overlapped in substance with other workstreams at COP28. Understanding the multiple connections between the GST decision and these other COP28 workstreams is critical to understanding the overall result of the UAE Consensus, and for Parties to consider a way forward in a manner that integrates ambition across all topics. This paper analyses how the content and sequence of negotiations in some cases helped, and in others hindered, an ambitious and equitable GST decision.

Section 2 analyses the key connections within the GST, and between the GST and other COP28 workstreams.<sup>5</sup> Section 3 considers implications for the implementation of the GST decision, at national level, within and outside the UN climate regime. Section 4 concludes.

---

<sup>4</sup> Key findings from the GST technical synthesis report were the culmination of two years of technical dialogue. The technical assessment produced a large volume of information, see the official GST information portal at <https://unfccc.int/topics/global-stocktake/information-portal> for the synthesis report of the technical dialogue, three summary reports following each meeting of the technical dialogue, and a very large volume of information in the form of submissions by Parties and non-Party stakeholders, being the sources of inputs agreed in decision 19/CMA.1, paras 36 and 37. In addition, a tool at <https://gst1.org/> enables interested readers to search in plain English, and then filter results - and be taken to the original source document. The GST is thus also an informational tool.

<sup>5</sup> In this paper, 'workstreams' refer to work programmes and agenda items under the COP and CMA. While not a hard distinction, agenda items often have a narrow focus, while the GST has very broad scope, and overlaps with both work programmes and agenda items.

## + 3. Analysing connections in the first GST decision and with COP28 actions



Before analysing connections within the GST, and with other COP28 workstreams, we briefly explain the GST and other workstreams forming part of the UAE Consensus. Some connections are *inherent* in the design of the GST and the nature of climate action, others are critical for *understanding* the GST decision in the context of the UAE Consensus and can be arranged by mitigation, adaptation and finance, while a final set of connections are for *guiding* integrated future strategies for implementation at the international and national levels (in Section 3).

### 3.1. What is the GST and how does it relate to other COP28 workstreams?

The GST is a ‘ratchet mechanism’ of the Paris Agreement, taking stock of ‘the implementation of this Agreement to assess the collective progress towards achieving the purpose of this Agreement and its long-term goals’ (UNFCCC, 2015: Article 14.1). Every five years, the GST assessment comprises an information-gathering phase, a technical phase and a political phase. The first GST – or GST1 – was initiated at the end of 2021 and concluded in the UAE in November 2023.

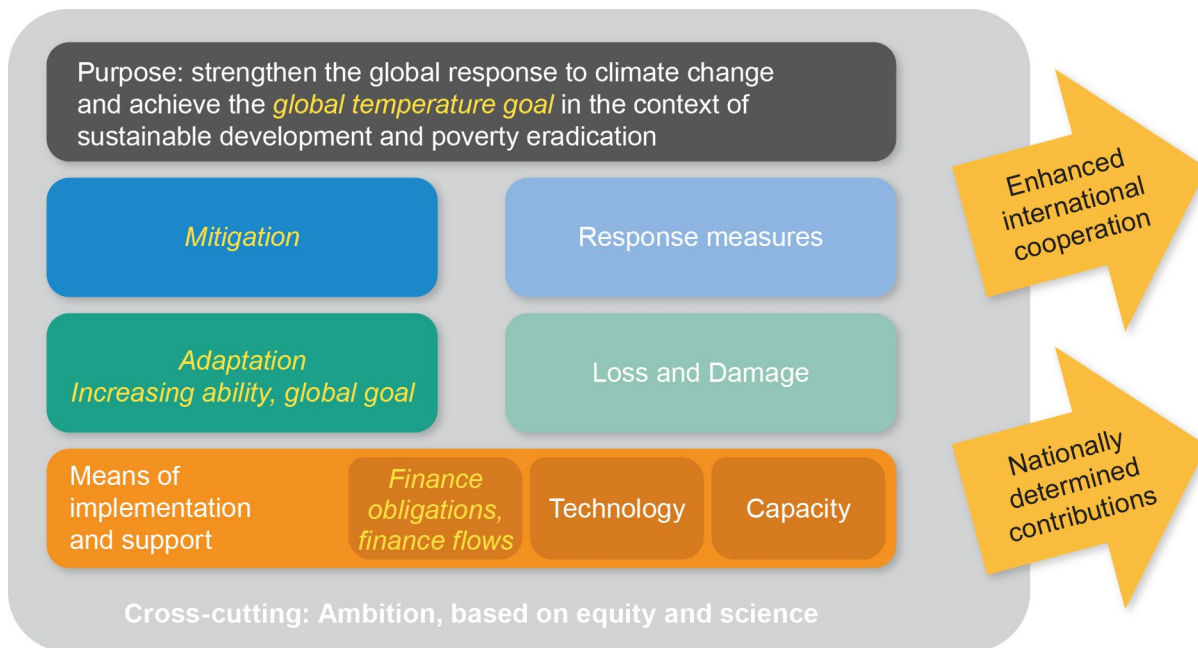
The GST modalities agreed a broad scope, including mitigation, adaptation and means of implementation and support,<sup>6</sup> as well as response measures and loss and damage (UNFCCC, 2018a: 6), and these are shown in Figure 1. The figure also illustrates that the GST assesses progress in achieving the purpose of the Paris Agreement and its long-term goals: on global temperature (in Article 2.1a of the Paris Agreement), mitigation (Article 4.1), adaptation (Article 2.1b and 7.1) and finance (Article 2.1c and 9.3). Figure 1 further conveys the cross-cutting elements which are the foundation of the GST: ambition needs to increase across the board, and be based on equity and founded in best available science. Finally, the figure illustrates that the outcome of the GST is set to inform the next round of nationally determined contributions (NDCs) – these outline each country’s policies, actions and measures to mitigate and adapt to a changing climate for a five-year period – and to enhance international cooperation (UNFCCC, 2015: Article 14.3).

---

<sup>6</sup> Means of implementation (MoI) and support are understood as finance, technology and capacity-building. MoI and support are used interchangeably, yet both terms are explicitly included in Article 14.



Figure 1 Global Stocktake: broad scope of topics, cross-cutting issues and long-term goals of Paris Agreement



\*Yellow Italic text signifies long-term global goals

In light of its broad scope, the GST overlapped substantively with the focus of other COP28 workstreams. Some of these workstreams were launched in 2021 and 2022, after the modalities of the GST were agreed (UNFCCC, 2018b), and some overlapped in timing with the GST. Figure 2 provides a schematic illustration that identifies the connections that can be identified between the GST and other workstreams.<sup>7</sup>

<sup>7</sup> The UAE Consensus also includes a decision on Presidency youth champions, not analysed in this paper.

Figure 2 Identifying connections in substance within the Global Stocktake and to other COP28 workstreams

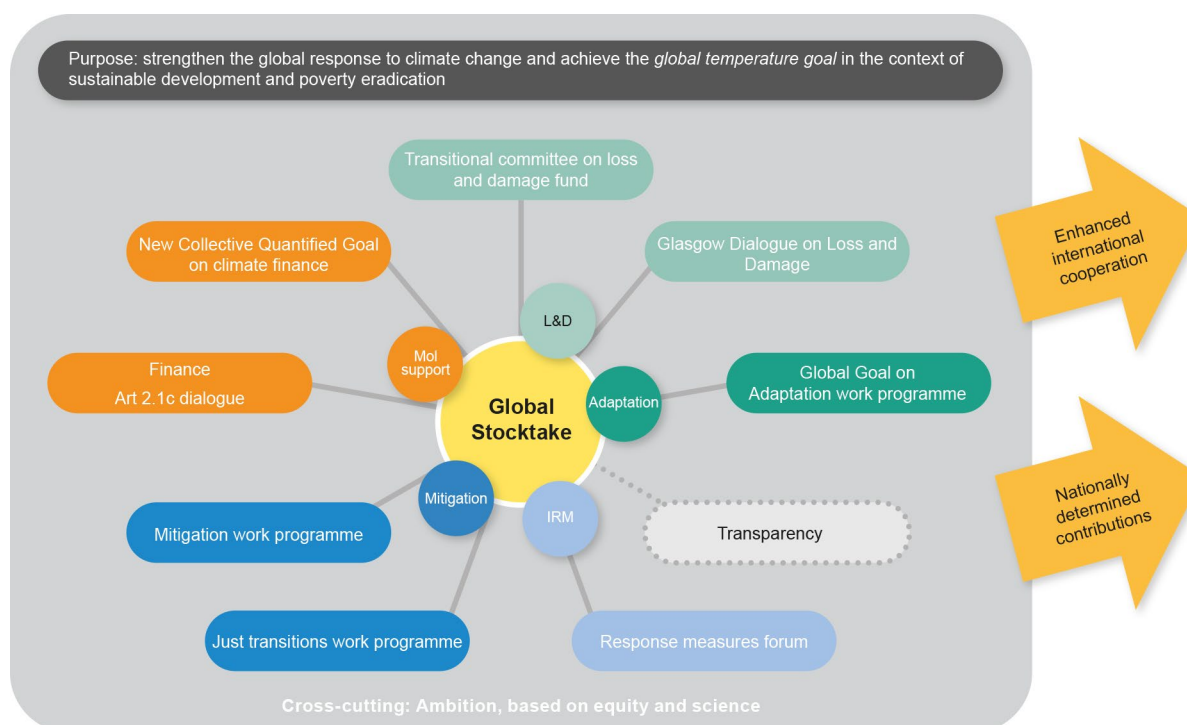


Figure 2 helps in understanding connections, showing the overlap in substantive topics, with lines connecting the GST to other COP28 workstreams. The topics of the GST have been described above; below we briefly explain other workstreams shown in Figure 2.

- The **Global Goal on Adaptation (GGA)** is one of the long-term goals of the Paris Agreement, and collective progress towards the GGA is part of the GST assessment. To better understand the GGA, a two-year work programme was launched as part of the Glasgow Climate Pact (UNFCCC, 2021: 11–13), and we show in our analysis how understanding the GGA connection to the GST decision matters.
- A **Glasgow Dialogue** was established in 2021 to discuss arrangements for the funding of activities to avert, minimise and address loss and damage (UNFCCC, 2021: 73–74). A year later, a **Transitional Committee** was tasked to develop funding arrangements, including a fund, to respond to loss and damage (UNFCCC, 2022b). These complement the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (WIM), established in 2013, and within that the Santiago Network on Loss and Damage (SNLD), created in 2019 to catalyse technical assistance to implement approaches to avert, minimise and address loss and damage.
- At COP27 in Sharm el-Sheikh in 2022, the cover decision established a work programme on just transitions, asking the subsidiary bodies to elaborate its modalities further during 2023 (UNFCCC, 2022b: 50–53). This process overlapped



with the extensive focus on just transitions in the GST through both its technical and political phases. The resulting COP28 UAE **Just Transitions Work Programme (JTWP)** will enable exchanges of information and seek to inform good practice on just transitions, across many different contexts. The GST also discussed just transitions in its technical dialogue and included reference in the decision, indicated by the line connecting the GST to JTWP in Figure 2.

- On finance, work on the **New Collective Quantified Goal (NCQG)** will set a successor to the existing climate finance goal from a floor of \$100 billion per year, in the context of the mobilisation goal under Article 9.3 of the Paris Agreement, read with paragraph 53 of the Paris decision, from developed to developing countries. The quantum is to be set in 2024, and the NCQG comes into effect by 2025 (UNFCCC, 2015b: Article 9.3; UNFCCC, 2015a: 53). Background to the NCQG is explained in Box 2.
- **Article 2.1c** outlines another of the long-term goals of the Paris Agreement, aiming to make finance flows consistent with a pathway towards climate-resilient and low-emission development. A dialogue on Article 2.1 c was initiated at COP27 in Sharm el-Sheikh and has been extended until the end of 2025 (UNFCCC, 2022b: 68).
- At COP26 in Glasgow, a work programme was established to urgently scale up mitigation ambition and implementation known as the **Mitigation Work Programme (MWP)**. Decision 1/CMA.3 explicitly indicated that the MWP should be undertaken in a manner that complements the GST (UNFCCC, 2021: 27).
- **Response measures** is shorthand for the impact of mitigation actions on other countries that are most affected by such actions, particularly developing countries, an issue that was long considered under several agenda items. At COP17 in Durban, a Forum on the Impact of the Implementation of Response Measures (IIRM) was established to address response measures in an integrated way (UNFCCC, 2011). In 2018, the Katowice Committee of Experts was established to support the work of the Forum.
- Work on the **enhanced transparency framework** under Article 13 elaborated modalities, procedures and guidelines (MPG), which were agreed as part of the Paris rule-book (UNFCCC, 2018a), at the same time as the modalities of the GST were agreed. Transparency reports are an important input to the GST, and several aspects of the decision referred to transparency. Since transparency is distinct from the GST, we connect it by a dotted line in Figure 2.

In the remainder of this section, we analyse connections that help within the GST, and with other workstreams, as indicated in Figure 2.

## 3.2. Cross-cutting connections: ambition, based on equity and science

### **Connection 1. The GST decision reaffirmed science and equity as foundational for an ambitious multilateral rules-based response to climate change**

Science and equity are fundamental bases of the multilateral response to climate change, and the Paris Agreement explicitly includes them as characteristics shaping the manner in which the GST is to be undertaken (UNFCCC, 2015b: Article 14.1). The best available science is assessed by the IPCC and is a very important source of inputs to the GST, listed in the GST modalities second only to national reports (UNFCCC, 2018b: paragraph 37). IPCC reports are widely considered authoritative assessments of ‘best available science’, though critiques of the IPCC point to the need to bring in forms of knowledge that do not feature prominently in the IPCC reports, including indigenous knowledge and literature from under-represented regions (typically developing countries) and beyond the English language.

Inputs from science were extensively discussed in the technical dialogue of the GST, informing all of its topics. This included the IPCC assessment of literature on equity, and the technical dialogue of the GST discussed the many dimensions of equity in varying depth across mitigation, adaptation and finance.

The GST technical synthesis report captured a wide range of views of equity, yet identified a shared theme: ‘The concept of equity is complex and multidimensional, encompassing both national and international dimensions, and includes considerations associated with differing national circumstances, capabilities and opportunities for action. A common thread across the discussions was that equity should align with an upward spiral of ambition in implementing the Paris Agreement’ (UNFCCC, 2023j: extract from 132–134). In other words, equity can and should support ambition.

More broadly, three decisions that form part of the UAE Consensus – the GST, JTWP and that on the loss and damage fund – repeat a preambular paragraph on equity from the Paris Agreement, which acknowledges that countries should respect a wide range of rights when taking climate action, including human rights, the right to development, a clean environment, health, Indigenous Peoples’ rights, gender equality and intergenerational equity (UNFCCC, 2023f; 2023k; 2023e).

### **Connection 2. The GST reaffirmed the Paris Agreement recognition that more mitigation means less need for additional adaptation and lower costs**

Another inherent connection within the GST was that keeping 1.5°C in reach depends on more mitigation, but higher temperatures drive worsening impacts and more need for adaptation. By extension, the same is true for loss and damage, as the IPCC assessed observed impacts and found more frequent and intense extreme events ‘caused widespread adverse impacts and related losses and damages to nature and people’ (IPCC, 2022b: SPM.B.1).



### 3.3. Mitigation connections: ambition, equity and response measures

**Connection 3. The GST acknowledged that there has been an increase in mitigation ambition, while emphasising that more is needed to achieve the long-term global goal on mitigation, and the decision calls for countries to contribute to a wide range of global efforts, including transitioning away from fossil fuels, based on equity and science, while the decision of the Mitigation Work Programme was largely procedural**

The first GST technical synthesis report identified that, while action on mitigation has increased since Paris, it is still not nearly enough to stay under 1.5°C (UNFCCC, 2023j). Mitigation measures and targets in NDCs and long-term low GHG emission development strategies (LT-LEDS) developed by countries have made a difference, yet adding up mitigation efforts, they are not adequate to close emissions gaps.<sup>8</sup> Drastic reductions are urgently needed, given that we have already spent four-fifths of the global total carbon budget consistent with 1.5°C, with the total being the sum of historical observed and future projected emissions (IPCC, 2022a; UNFCCC, 2023j). Much more urgent action and support are needed to raise ambition and implement existing commitments. Domestic mitigation measures need to be more ambitious (UNFCCC, 2023j).

Best available science was an important basis for GST efforts to increase mitigation ambition. The GST technical synthesis report referenced key numbers from global mitigation pathways, as assessed by the IPCC: namely to see 43% emission reductions by 2030 and 60% by 2035 compared to 2019 levels, and reaching net-zero CO<sub>2</sub> emissions by 2050 (UNFCCC, 2023j: key finding 5), therefore echoing what the IPCC assessment reports had found (IPCC, 2022a; IPCC, 2023; Calvin et al., 2023). The GST political phase also referenced these numbers in the GST decision, followed by a list of mitigation measures for the world to aim collectively towards (UNFCCC, 2023f: 27 and 28).

Grounded in equity and best available science, the GST decision sent a clear signal to transition away from fossil fuels, and accelerate a wide range of mitigation measures (which each country can choose) in order to reach net-zero emissions globally by 2050.

The GST decision also refers to tripling renewable energy and doubling energy efficiency by 2030. These are other important efforts, relevant to just energy transitions – and facing challenges when translated to the national scale (see Box 1). Other elements of paragraph 28 of the GST decision (UNFCCC, 2023f) include a long list of technologies: renewable energy (again), nuclear power, carbon dioxide removal, including carbon capture, use and

---

<sup>8</sup> As per the GST synthesis report, emissions gaps are the difference between the emission levels implied by the NDCs and the average emission levels of global modelled mitigation pathways consistent with limiting warming to 1.5 °C or 2 °C. Implementation gaps refer to how far currently enacted policies and actions fall short of reaching stated targets.

storage, technologies for hard to abate sectors and hydrogen, options to reduce non-CO<sub>2</sub> gases, and road transport. The decision also addresses land, emphasising the importance of increasing efforts to halt and reverse deforestation and forest degradation by 2030 (UNFCCC, 2023f: 33). The transition away from fossil fuels, however, attracted most attention. The GST decision also includes phasing out inefficient fossil fuel subsidies that do not address energy poverty and just transitions.

Much public attention during and after COP28 focused on one sub-paragraph in the GST decision's list of global efforts on mitigation as part of just energy transitions: '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 the science' (UNFCCC, 2023f: 28(d)). This particular measure is indeed historic, being the first explicit reference to all fossil fuels.<sup>9</sup> Equity will be important in how transitions away from fossil fuels are implemented, whether developed countries take the lead and considering the technical finding that the 'timing of phase-outs will differ for different contexts and fuels' (UNFCCC, 2023j: 119). 'Orderly' suggests a transition that manages the disruptive effects of the rapid and deep changes required. Science is explicitly invoked, and further discussions will likely include net zero emissions, and how these might differ in timing by context while reaching this goal globally by 2050. This sub-paragraph, however, can be read as a clear signal from COP28 that the end of the fossil fuel era has begun.

The transition away from fossil fuels is no 'silver bullet', and countries can choose from a wide range of other mitigation measures in the GST decision. Also, many options are summarised in the GST technical synthesis report from the technical dialogue (UNFCCC, 2023j), and more measures were included in the 'technical annexes' submitted by participants.

How these global mitigation pathway numbers and list of global efforts relate to individual country efforts is a matter of equity, and needs to address differences in time-frames and spatial scales (Lecocq and Winkler, 2024). There are other important goals relevant to just energy transitions that face challenges when GST decision mitigation targets are translated to the national scale, such as the tripling of renewable energy (see Box 1).

### **Box 1 The challenges of tripling renewable energy at a national level**

Tripling renewable energy (RE) is a global goal from the GST decision. Paragraph 28 of the GST decision is a call on all countries, and explicitly recalls that measures are nationally determined. The goal does not define what is being tripled. Is it total capacity (e.g. from a hypothetical 10MW to 30MW) or the share of capacity (e.g. from 10% to 30%)? For countries that already have more than 33% of electricity generation capacity from RE, such as Kenya, Brazil and Norway, tripling RE is not possible. If tripling refers to total capacity (e.g. from 10MW to 30MW), there may be additional challenges. South Africa

<sup>9</sup> Earlier decisions had been silent of fossil fuels, or been specific in calling for faster "efforts towards the phasedown of unabated coal power" (UNFCCC, 2021: 33), i.e. specific to one fuel, electricity and qualified by unabated.



already has ambitious RE plans exceeding a tripling of capacity. South Africa's 2019 electricity plan included 30GW total capacity, and 90GW of RE would be almost double installed capacity – illustrating a scale that challenges technical capacity, and requires daunting build rates. Does tripling capacity refer only to electricity, or to all energy?

In some cases, tripling renewables will be unlikely to find support for rapid implementation in the political economy, or key actors in a polity. Political feasibility is likely to be a challenge where the livelihoods of many workers and communities have depended on coal, and been dominated by a minerals-energy complex for many decades (Fine and Rustomjee, 1996). Additionally, access to clean energy remains a critical issue in Africa. Efforts to pursue the RE target cannot ignore expanding energy access. Context matters.

Finance for RE matters. The tripling of RE capacity requires 'scale up financing dramatically, backed by intensified international collaboration' (IRENA, 2024: 13). Dramatic shifts are needed in finance, responding to the call to phase out fossil fuel subsidies that 'do not address energy poverty or just transitions, as soon as possible' (UNFCCC, 2023f: 28). IRENA points out that, in 2022, fossil fuel subsidies totalled \$1.3 trillion, which happens to be just what is needed annually for tripling RE by 2030 (IRENA, 2024: 10). Increased financial resources are needed to bring down the costs of some RE technologies, as well as investment to strengthen grids in some contexts (IRENA, 2023: 34).

If not directly providing finance, at least money should be made cheaper. The weighted average cost of capital (WACC) is low enough in developed countries, and in China, to commercially finance RE. WACC is up to five times higher for RE projects in Brazil, India, Indonesia, Mexico and South Africa (3.6%–7.2% (real, post-tax) in the period 2021–2022) (IRENA, 2024: 14). Finance for tripling RE could be taken up in the NCQG as one aspect of scaling up finance for mitigation, and in the continued dialogue relevant to Article 2.1c

Equity is highly relevant in translating global goals to the national scale. There is no credible reason to believe that tripling RE would happen in every country at the same time. And 'nothing is so unequal as the equal treatment of unequals'.<sup>10</sup> Currently, distribution of RE is highly unequal; as IRENA puts it: 'Consolidated global figures conceal ongoing patterns of concentration in both geography and technology': 83% of RE investments went to China, the EU and the US (IRENA, 2024: 7). Additionally, access to clean energy remains a critical issue in Africa. Currently, investment is concentrated in just four countries on the African continent.

Tripling RE and transitioning away from fossil fuels are integral parts of energy transitions, which must be just to be accepted by stakeholders. Just energy transitions mean that each country should contribute equitably and fairly, based on different starting points and contexts. Developing nations may have different priorities and require more support, such as increased concessional finance for RE projects, to avoid exacerbating debt burdens. Some countries would need to exceed the tripling target to compensate for those with limited capacity. It is therefore unhelpful to apply such a goal uniformly. The JTWP should take up the equity dimensions of tripling RE, building on the GST decision.

---

<sup>10</sup> An epigram attributed to Aristotle.

Science-based policy-making is crucial. This means that analysis is required to translate a global call to national scale, with attention to differences in context. One example is that costs can differ between countries, and analyses should address differences in such costs. Another example is that the grids needed to transmit renewable energy are already adequate in some contexts, while grids in other countries need strengthening (IRENA, 2023). Global reports should be complemented by in-country research to ensure solutions are tailored to each country's specific context.

A clearly defined approach to translating the global call for tripling renewable energy into local action should take a nuanced approach that considers national circumstances, prioritises equity and access, provides finance at commensurate scale and in a manner that leads to more equal distributions of investments and opportunities, and draws on robust evidence for successful implementation.

The wide range of mitigation measures in paragraph 28 of the GST decision is critical in providing flexibility to countries as they choose how to achieve their mitigation targets. In calling on Parties to contribute to global efforts, the GST decision not only emphasises the nationally determined manner in which mitigation measures are set, but elaborates that they take 'into account the Paris Agreement and their different national circumstances, pathways and approaches'.

Mitigation measures have long been a matter of choice, as developed countries could choose their policies and measures from those enumerated in the Kyoto Protocol's Article 2, and freedom to choose applies even more in the nationally determined approach to contributions to implementing the Paris Agreement. The only legal obligation in the second sentence of Article 4.3 of the Paris Agreement is to pursue domestic mitigation measures: there is no prescription of any particular measure. It is a 'blanket provision for parties; that is, all are required individually to pursue domestic measures aiming to achieve the objective of their mitigation NDC' (Winkler, 2017: 147).

Regarding the form of mitigation targets, the GST decision recalls Article 4.4 of the Paris Agreement, which agreed differentiated forms for developed and developing countries. Parties are then encouraged, not required, to raise the ambition of their mitigation targets in their second NDCs (UNFCCC, 2023f: 38–39). The ambition of mitigation targets can be understood only with both form and stringency (Baumert and Goldberg, 2006; Winkler, 2017). The words describing the form of a target and its stringency (the numbers specifying the targets) must be understood together. Some may argue that greater stringency in mitigation is arguably guided by the reference to deep, rapid and sustained emission reductions in line with 1.5 °C pathways in paragraph 39, yet that omits any reference to equity, referring only to national circumstances. Moreover, if developing countries were to move a form that is perceived as more ambitious, there would also need to be a corresponding statement on increased stringency of targets, notably for developed countries and others whose emissions have already peaked. There is no such provision,



and how balance is achieved in progression in the form and stringency of mitigation targets, across countries, is likely to remain contested in future negotiations.

By contrast to the depth and detail of substance in the GST decision on mitigation, the Mitigation Work Programme (MWP) resulted in a largely procedural decision (UNFCCC, 2023i), and was not the vehicle for mitigation ambition in the year of a GST. The MWP decision also included mitigation measures, but is less specific than the GST decision in paragraph 28; for example, renewable energy and energy efficiency are merely listed as terms in the MWP text, whereas the GST decision recognises the need for ‘tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030’ (UNFCCC, 2023f: 28a).

#### **Connection 4. The GST decision was limited in increasing ambition in implementing domestic mitigation measures by its limited ambition in increasing finance for mitigation in developing countries**

The GST decision says little about finance for mitigation actions. It makes reference to the ‘affordability’ of technologies and the need to enhance support and investment – but this is limited to efforts towards halting and reversing deforestation and forest degradation (UNFCCC, 2023f: 30 and 34, respectively). Developed countries generally argued that finance should be dealt with under finance workstreams. Another constraint was that the quantum of the provision and mobilisation of climate finance support from developed to developing countries was to be set in 2024, which meant that the amount by which international public climate finance may increase was not negotiated in the GST (see Box 2).

Another key gap and limiting factor for mitigation ambition is that finance for just transitions is missing in the UAE Consensus, despite the momentum on just energy transition partnerships (JETPs) generated in the margins of the UNFCCC process. Although there is no unifying definition, JETPs entail a clear political commitment for an ambitious and accelerated just energy transition of the host country in exchange for financial, technology and implementation support from a group of external partners. Such partnerships should include concessional loans to accelerate energy transitions and grants for socio-economic development, so that the transitions are just. Analysis of JETPs is still emergent, with some authors focusing on the potential as a vehicle to scale up finance for mitigation, others questioning whether they deliver justice and yet others raising questions about access by all countries (Boulle, 2023; Fakir, 2023; Ha-Duong, 2023; Lenferna, 2023). The Standing Committee on Finance (SCF) held a forum on financing just transitions in 2023, and the Green Climate Fund included finance for just transitions in its 2024–2027 strategic plan. Despite this activity, there is a gap on finance for just transitions in the COP28 decision on SCF matters (UNFCCC, 2023c). ‘Financing of just transitions’ is not explicit in the GST decision or in the decision and ongoing deliberations on the NCQG, pointing to a significant gap in the COP28 outcomes as to how finance for just transitions is to be carried forward.

## **Connection 5. In the GST decision, equity in mitigation was reflected particularly through just transitions and connected to the UAE JTWP**

Equity in mitigation was addressed in the GST decision mainly through the concept of just transitions. A just transition is described in the GST technical synthesis report as one that reduces the disruptive consequences of rapid system transformations. The mitigation section of the GST decision includes significant statements on just transitions, underscoring ‘that just transitions can support more robust and equitable mitigation outcomes, with tailored approaches addressing different contexts’ (UNFCCC, 2023f: 10). This is an instance of the broad framing that equity can and should enable ambition, cited in the Introduction of the GST decision outlining context and cross-cutting considerations. Another key way equity in mitigation was embedded in the GST decision was by recalling that countries are expected to explain how their NDCs are fair and ambitious. Just transitions were also used as part of the reframing of fossil fuel subsidies in the GST decision. Since the G20 meeting in Pittsburgh in 2009, such subsidies have been characterised as inefficient. The GST decision defines inefficient fossil fuel subsidies as those ‘that do not address energy poverty or just transition’, indicating that phase-out should happen as soon as possible (UNFCCC, 2023f: 28 (h)).

The UAE JTWP adopted at COP28 was also a key outcome linking mitigation and equity. The JTWP will hold regular dialogues to share lessons and seek support for just transitions. Running from 2024 to 2026, the JTWP will inform the second GST that will start in 2026 and conclude in 2028 (UNFCCC, 2023k). The JTWP gives further detail on socio-economic rights, for workers and others who need social protection: ‘Just and equitable transition, which encompasses pathways that include energy, socioeconomic, workforce and other dimensions, all of which must be based on nationally defined development priorities and include social protection so as to mitigate potential impacts associated with the transition’ (UNFCCC, 2023k).

Several of a set of elements included in the JTWP decision, which set the tone for the work programme in 2024, relate to justice in mitigation. However, these elements notably also include justice in the pursuit of adaptation and climate resilience. Just transition in the context of climate resilience also emerged in the technical dialogue of the GST, with just resilience involving avoiding actions that simply shift risks to other actors or reinforce existing vulnerabilities (UNFCCC, 2023j: 160). The JTWP discussions may therefore also further develop thinking around just resilience.

Just transitions also appeared briefly in the MWP decision, which welcomed the 2023 global dialogues and investment-focused events on just energy transitions, including in transport systems (UNFCCC, 2023i: 4).



## **Connection 6. Technical assessment in GST identified options for economic diversification, which can connect response measures to broader conceptions of mitigation**

The section of the GST decision on the impacts of implementation of response measures or IIRM<sup>11</sup> refers to just transitions in relation to the workforce, but also broader approaches, encouraging Parties to develop national case studies and to put just transitions in the context of climate-resilient and low-emissions development strategies, sustainable development and poverty eradication (UNFCCC, 2023f: Section E).

Some gaps remain. The technical assessment of GST1 identified economic diversification as a key strategy in dealing in more detail with response measures. The GST technical synthesis report under its key finding 8 summarised some key 'opportunities for such diversification as green industrialization and the greening of supply chains and diversifying to related and unrelated products' (UNFCCC, 2023j: 26–27).

Participants in the GST technical dialogue also emphasised the need for training people in sector-specific skills as part of economic diversification, and noted that transitions were not limited to the energy sector, but might see contributions from sectors such as tourism, aviation and shipping. If not planned properly, diversification policies purely for economic benefit may put economies, livelihoods and lives at risk in a changing climate (UNFCCC, 2022d: 265–275). It will be opportunities such as green industrialisation and contributions to mitigation in other sectors that will connect the technical discussions on response measures in the GST to the MWP.

The COP28 decision on the IIRM Forum, supported by its Katowice Committee of Experts, focused on its review and five-year work programme, but also encouraged Parties to consider just transition plans and frameworks when designing NDCs and LT-LEDS (UNFCCC, 2023g). Just transitions in the IIRM focus on the workforce and the creation of decent work and quality jobs. The IIRM decision also references the JTWP – but not *vice versa* – given it does not explicitly mention response measures, or economic diversification.

---

<sup>11</sup> IIRM is impacts of implementation of response measures. IIRM is understood as the effects arising from the implementation of mitigation policies, programmes and actions, “in-jurisdiction” and “out-of-jurisdiction” or cross-border impacts, taken by Parties under the Convention, the Kyoto Protocol and the Paris Agreement to combat climate change. See <https://unfccc.int/topics/mitigation/workstreams/response-measures>.

### 3.4. Adaptation connections: targets in the Global Goal on Adaptation framework, resilience, building the information base, touching on equity and filling the adaptation finance gap

#### **Connection 7. The GST decision starts by recalling the GGA, establishing the connection with that long-term goal, connecting back to the global temperature goal, and the GGA framework strengthens the first GST decision on adaptation**

The GST and GGA discussions and negotiations also overlapped in substance and timing. Art 7.14 explicitly makes progress towards the GGA a matter to be assessed by the GST. Yet the two-year work programme on the GGA took place in 2022 and 2023, at the same time as the GST. Adaptation thus is a topic that exemplifies the need to understand connections across COP28 decisions, as illustrated in Figure 2.

Recognising the importance of adaptation to the growing adverse impacts of climate change, the adaptation section of the GST decision at the outset recalls the GGA, affirming a connection with this long-term goal of the Paris Agreement. The GGA itself, as captured in Article 7.1 of the Paris Agreement, also references the global temperature goal in Article 2.1a, further reaffirming in the GST the connection between mitigation and adaptation as noted above.

The GGA decision in Dubai adopted the UAE Framework for Global Climate Resilience (UNFCCC, 2023b: 6). The Framework, hereafter FGCR, will help track progress towards the GGA, including by agreeing targets and setting up further work on indicators to measure progress towards those targets. The FGCR bolsters the adaptation outcomes of the GST decision, though the parallel nature of the GST and GGA processes means this bolstering is primarily in strengthening the information base on impacts and events. Information is important to action on adaptation, and the GST decision identifies concrete ways to bridge information gaps. The GST decision therefore strengthens the information base on impacts and adaptation in several ways.

First, the GST decision 'Acknowledges that establishing and improving national inventories of climate impacts over time and building accessible, user-driven climate services systems, including early warning systems, can strengthen the implementation of adaptation actions' (UNFCCC, 2023f: 49). For example, by extending early warning systems (EWS) to the third of the world that currently does not have effective systems would provide top-down information on climate risks, while collecting data bottom-up would additionally provide ground-truthing, with events and climate impacts captured in national and / or local inventories.

Second, the GST decision includes impact, vulnerability and risk assessment as one step in an iterative adaptation cycle. Risk assessment relies on information, including in national adaptation plans, systematic observation, EWS and 'climate information services'



(UNFCCC, 2023f: 64a). Climate information services are more fully elaborated in the GST technical findings (UNFCCC, 2023i: 157–158).

Third, the secretariat has been mandated to produce a synthesis report on adaptation information provided by Parties in their biennial transparency reports, adaptation communications and NDCs (UNFCCC, 2023f: 60).

Finally, the GST decision calls on the scientific community to fill ‘knowledge gaps’ (UNFCCC, 2023f: 183). Parties had agreed in Sharm el-Sheikh, for example, to invite IPCC AR7 to update technical guidelines for assessing climate impacts and adaptation, which are 30 years old (UNFCCC, 2022c).

The GST decision thus made progress in strengthening the information base for adaptation, even if it did not directly lead to more ambitious adaptation action. The decision calls on all Parties to have national adaptation plans by 2025 and show progress in implementing them by 2030. By contrast, the timeframe for achieving the GGA is ambiguous, to be achieved ‘by 2030 and progressively beyond’, which is at odds with the sense of urgency of being in a ‘critical decade’, and clearer timeframes in mitigation, including peaking by 2025.

### **Connection 8. The GST decision and GGA are connected through identical targets for implementation that emerged from the FGCR**

The UAE Consensus made significant progress on the GGA, setting 11 targets that will be measured under the GGA framework, the FGCR. These are linked to the objective of the FGCR, which is to guide the achievement of the GGA and the review of overall progress in achieving it, with a view to both reducing the adverse impacts of climate change as well as enhancing action and support for adaptation. These 11 targets are of two kinds, thematic targets that are globally agreed and those related to the iterative adaptation cycle which can frame implementation.

- Thematically, the GGA decision urges countries to pursue targets for adaptation in relation to: a) water; b) food and agriculture; c) health; d) ecosystems and biodiversity; e) infrastructure and human settlements; f) poverty and livelihoods; and g) cultural heritage (UNFCCC, 2023b: 9).<sup>12</sup> Some of the thematic targets relate to a sector (e.g. health), and others are issue-based (e.g. poverty and livelihoods).

---

<sup>12</sup> These targets are similar to, but not exactly the same as, “themes” that had been identified in Sharm el-Sheikh in decision 3/CMA.4, paragraph 10; negotiations in Dubai amended what theme targets were set. (UNFCCC, 2022c).

- The GGA decision also identifies the following targets of an iterative adaptation cycle: a) impact, vulnerability and risk assessment; b) planning; c) implementation; and d) monitoring, evaluation and learning (UNFCCC, 2023b: 10).<sup>13</sup>

The desire to increase ambition in adaptation actions will be better understood in relation to these more granular and specific FGCR targets. Countries may also choose to include adaptation targets or goals in their NDCs, making a contribution towards the GGA, using information to track progress.

The GST decision reiterates the same 11 targets as the FGCR (UNFCCC, 2023f: 63 and 64). Furthermore, the FGCR links directly to the GST decision by using the same sources of information, as listed in 19/CMA.1 (for 2018). So in future GSTs, the assessment of progress towards the GGA under the GST, as mandated in Art 7.14d, and results from applying the UAE framework, will have the same information base (UNFCCC, 2023b: 15). A technical synthesis report on adaptation that will be prepared for the second GST will now be able to include information related to targets set in the FGCR (paragraph 17).

As such, the GST decision did not make much progress in assessing the adequacy and effectiveness of adaptation actions and support – even though this is explicitly mandated in the Paris Agreement (UNFCCC, 2015: Article 7.14c). However, the GST decision does note ‘gaps in implementation of, support for and collective assessment of the adequacy and effectiveness of adaptation’ (UNFCCC, 2023f: 48), but neither quantifies the gap, or even makes a clear statement on regarding inadequacy. The response is conveyed more through calls to take more urgent action, and to strengthen information. This is in contrast with quantified gaps in emissions and mitigation in the GST decision. More comprehensive information will help to assess progress towards the GGA during GSTs in the future. Yet the GGA is more of a mosaic or composite – it is not the same as adding up tons (for mitigation) or currencies (for finance).

### **Connection 9. Equity in adaptation is addressed to a limited extent in decisions on the GST, GGA and JTWP**

As such Starting with the GST, the concept of ‘just resilience’ emerged in the GST technical dialogue, with the synthesis report reflecting that ‘Climate services inform adaptation planning and implementation based on local engagement and locally determined priorities, and improve the identification of action and support for responding to projected risks and scenarios, promote social inclusion and facilitate just resilience. Just resilience involves avoiding actions that simply shift risks to other actors or reinforce existing vulnerabilities’ (UNFCCC, 2023j: 160).

---

<sup>13</sup> Repeating the “dimensions” from 3/CMA.4, except that the reference to means of implementation, including finance, from Sharm, is not in paragraph 10 of the UAE decision MOI are included in a later paragraph 24.



The GST decision does not include the positive framing of just resilience; instead, it focuses on injustice, or more precisely that adaptation responses are ‘unequally distributed across regions’ (UNFCCC, 2023f: 15(c)).

The GGA decision encourages countries to take equity into account when implementing adaptation via, where possible, ‘country-driven, gender-responsive, participatory and fully transparent approaches, as well as human rights approaches, and to ensure intergenerational equity and social justice, taking into consideration vulnerable ecosystems, groups and communities and including children, youth and persons with disabilities’ (UNFCCC, 2023b: 13). The last elements in the GGA decision – referencing the inclusion of vulnerable groups – are important issues that focus on procedural equity, while equitable outcomes are framed in the decision as intergenerational equity and social justice.

The JTWP decision refers to equity in its preamble, and operationally includes adaptation and climate resilience (not only mitigation). It therefore importantly establishes an understanding of equity in progressing adaptation actions (UNFCCC, 2023k: 2), which is also mentioned under Connection 5.

While all three decisions, GST, GGA and JTWP, referred to equity in the context of adaptation, only the GGA decision provides practical information that might be used as guidance in relation to equity in adaptation in the future.

**Connection 10. The GST decision highlighted the adaptation finance gap, but did little to fill that gap, still referring to a doubling of small amounts. Both the GST and GGA signal that the NCQG must improve balance in adaptation and mitigation finance**

The problem statement is clear in the GST decision, which 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’ and calls for scaling up of adaptation finance (UNFCCC, 2023f: 81–86). ‘The share of adaptation finance as a percentage of total spending on mitigation and adaptation has increased but is still below levels needed and significantly smaller than the share for mitigation’ (UNFCCC, 2023j: 169). Yet the GST decision still refers only to a doubling of adaptation finance.

The Glasgow Climate Pact urged ‘developed country Parties to at least double their collective provision of climate finance for adaptation to developing country Parties from 2019 levels by 2025, in the context of achieving a balance between mitigation and adaptation in the provision of scaled-up financial resources’ (UNFCCC, 2021: 18). The GST decision pushes developed countries to go beyond such doubling of adaptation finance. However, no official baseline to assess progress or a roadmap towards such doubling exists to date. A doubling from relatively low amounts is not the same as a

balance between finance for mitigation and adaptation. The GST technical synthesis report acknowledged this without quantification.

The reference only to the doubling of adaptation finance in the GST decision is probably due to lack of political priority among donor countries and as work towards the NCQG on climate finance was not yet concluded. Both the GST and GGA decisions send signals that the NCQG must improve the balance between adaptation and mitigation funding (UNFCCC, 2023f: 100; UNFCCC, 2023b: 28). Much like the GST decision, however, the GGA decision did not elaborate on the means of implementation, with arguments that finance should be addressed elsewhere. The GGA decision uses almost identical language on scaling up and balance (UNFCCC, 2023b: 28), while also boldly stating that the adaptation finance gap is widening (UNFCCC, 2023b: 30). The GGA decision goes further, noting that implementing the FGCR will require support to developing countries (UNFCCC, 2023b: 32, 34).

### 3.5. Finance connections: obligations and flows for mitigation, adaptation and loss and damage lacked ambition and equity

#### *Financing climate action*

**Connection 11. The GST decision took an integrated approach to obligations to provide and mobilise finance and the wider finance flows to be consistent with a pathway towards low-emission, climate-resilient development, and took a broader view on the reform of the international finance system, but lacked ambition and equity**

The first GST took an interconnected perspective on finance obligations and broader finance flows. As such, the GST was an opportunity to explore the obligations of developed countries both to provide and to take the lead to mobilise finance for climate action in developing countries, as well as considering wider financing of climate action globally.

The requirement of developed countries to provide and mobilise climate finance to support the implementation of climate action by developing countries is a long-standing obligation – first under Article 4 of the Convention, and recalled in Article 9 of the Paris Agreement, with the latter also opening up the possibility of other countries choosing to join developed countries in voluntarily providing climate finance. Developed countries agreed to the mobilisation goal of \$100 billion per year in Copenhagen fifteen years ago, in the context of meaningful mitigation actions (by all) and transparency on implementation (UNFCCC, 2009). This collective mobilisation goal of developed countries was restated in Article 9.3 of the Paris Agreement, with paragraph 53 of the Paris decision specifying the \$100 billion



per year – making clear this was a floor, and that a new collective quantified goal (the NCQG) for climate finance was to be set (UNFCCC, 2015b).

In assessing progress, the finance section of the GST decision expresses deep regret that the \$100 billion per year ‘was not met in 2021’ (UNFCCC, 2023f: 80). In its mention of the NCQG, the GST decision referred to support for both NDCs and NAPs, in other words referring to adaptation as well as mitigation, and ‘taking into account the evolving needs of developing country Parties’ and the wide variety of sources of finance required to do so (UNFCCC, 2023f: 94). The NCQG must take into account the needs and priorities of developing countries and the NCQG decision cross-references the GST decision, welcoming ‘the call to scale up ambition, adaptation and mitigation finance in line with the needs of developing countries referred to in decision -/CMA.5 [the GST decision, CMA agenda item 4]’ (UNFCCC, 2023d: 25). The GST decision highlighted that ‘such needs are currently estimated at USD 5.8–5.9 trillion for the pre-2030 period’ (UNFCCC, 2023f: 67).

In all decisions, there is room for greater clarity on the benchmarks for finance. The Standing Committee on Finance (SCF) – which assists the Conference of the Parties (COP) and CMA in finance matters – has undertaken work on identifying developing country needs for climate finance in their first Needs Determination Report (NDR) published in 2021 (SCF, 2021), and the next NDR is due towards the end of 2024. A needs-based approach has also been articulated by the independent GST (iGST), a civil society consortium. The iGST approach is to ‘make support concrete’ or, as articulated in one briefing: ‘Need is not an abstraction. Centering concrete needs will help clarify specific capacities that are lacking, barriers that are present, and the scale and nature of the international finance, technology, and capacity support required to meet the resulting needs’ (iGST Equity Working Group, 2022). Such articulation of concrete needs will be important as countries consider what next steps they might take, and how support is provided, based on the first GST decision.

The quantum of the NCQG was not negotiated in the GST. Furthermore, the decision on the NCQG at COP28 was mostly procedural, indicating a transition away from technical discussions to negotiating mode in 2024, and laying out how to develop substantive elements of a draft negotiating text (UNFCCC, 2023d: 1). This process is to include setting the quantum of the NCQG at CMA6 in 2024 (UNFCCC, 2023d: 18). The NCQG decision explicitly refers to taking into account the GST and the GGA decisions, during its deliberations (UNFCCC, 2023d: 24). The quantum, other elements and further background to the NCQG are explained in Box 2. In relation to earlier connections, what is clear is that the obligations of developed countries articulated in both the Convention and the Paris Agreement should be central and not voluntary for equity to be embedded in financing efforts.

## **Box 2 The New Collective Quantified Goal on climate finance**

As part of the Paris Agreement in 2015, it was decided that a new collective quantified goal (NCQG) on climate finance would be set prior to 2025. This goal was to be set from a floor of \$100 billion a year by 2020, which has been the collective mobilisation goal of developed countries since 2009. The NCQG must take into account the needs and priorities of developing countries (UNFCCC, 2015a: paragraph 53).

In 2021 at COP26 an *ad hoc* work programme on the NCQG was established, submissions on the NCQG were welcomed from Parties and non-Party stakeholders, high-level ministerial dialogues were agreed on, and stock-takes and guidance by the CMA was called for.

Since early 2022, Technical Expert Dialogues (TEDs) have been held. These have covered a variety of elements of the NCQG, including its sources, structure, temporal scope and transparency. Through these discussions, it has become clear that the NCQG includes a quantum of climate finance, and must also consider the quality of climate finance (UNFCCC, 2022a; 2023a). Although not defined, this might include the terms on which finance is provided, the ability to access finance and the degree to which it is gender-responsive, or promotes human rights.

At COP28, it was decided to transition the mode of work to enable the development of draft decision text for consideration at COP29. As such, 2024 will see at least three TEDs held back-to-back with three meetings allowing Parties to engage in developing a substantive framework for draft negotiating text.

The GST decision also highlights the role of the private sector in financing climate action globally. The decision reaffirms that international public finance plays a particularly important role in developing countries' climate action (UNFCCC, 2023f: 72). The GST decision outlines options for policy action to guide private investments to support climate-resilient and low-emission development, at scale. It calls on all countries to enhance their enabling environments to this end (UNFCCC, 2023e: 70).

Relatedly, the GST decision picked up on a building momentum – since Egypt – for reform of the multilateral financial architecture. Calls for such reforms, including of the MDBs, have been made for some time (Macron, Mottley et. al., 2023). The GST decision acknowledges that the World Bank has updated its vision statement as a step in the right direction to unlock more finance for climate and development, but the GST decision also called for more fundamental reform. MDBs are to strengthen their collaboration for greater impact, and there are calls on their shareholders to expeditiously implement their outlined vision and continue to significantly scale up the provision of climate finance, in particular through grants and concessional instruments. In this regard, a key technical finding from the GST is salient, namely that 'scaled-up mobilization of support for climate action in developing countries entails strategically deploying international public finance, which remains a prime enabler for action, and continuing to enhance effectiveness, including access, ownership and impacts' (UNFCCC, 2023j: key finding 14).



More fundamental reform of the international financial architecture is needed, and cannot be achieved by action in the UN climate regime alone. The UN Secretary-General has called for reforms to the international financial architecture, including in: global economic governance; debt relief and the cost of sovereign borrowing; international public finance; the global financial safety net; policy and regulatory frameworks; and a global tax architecture for equitable sustainable development (United Nations, 2023). The GST decision emphasised that such changes to the international financial system will require many, if not all, actors in the financial system to act. In particular, the decision emphasises ‘the role of governments, central banks, commercial banks, institutional investors and other financial actors with a view to improving the assessment and management of climate-related financial risks, ensuring or enhancing access to climate finance in all geographical regions and sectors’ (UNFCCC, 2023f: 96).

The GST decision also recognises that reaching the required scale of finance for climate action means ‘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, 2023f: 96). The GST decision’s reference to the scaling down of harmful incentives harks back to the precautionary measures included as a principle of the Convention (UNFCCC, 1992: Article 3.3). This inclusion also echoes a clause that is too often ignored in Article 2.1 (a) of the Paris Agreement, whereby it recognises that achieving the global temperature goal would also ‘significantly reduce the risks and impacts of climate change’.

Finally, the GST decision addresses some of the constraints that debt places on developing countries by highlighting the importance of non-debt or very highly concessional instruments when supporting developing countries. It stops short of referring to a sovereign debt crisis, that many developing country have highly restricted fiscal space and increasing numbers of developing countries are at risk of unsustainable sovereign debt. Instead, the GST decision refers to the corollary, that there is a positive connection between sufficient fiscal space and climate action and advancing on a pathway towards low emissions and climate-resilient development (UNFCCC, 2023f: 69).

These connections and the GST decision text considerations should be taken into account when discussing sources for the NCQG, and setting its quantum.

The provision and mobilisation of climate finance by developed countries for climate action in developing countries is one expression of equity. However, equity is seldom discussed explicitly in finance negotiations, or explicitly included in finance decisions. However, issues such as simplified access to climate finance in the form of grants and highly concessional loans address equity implicitly (UNFCCC, 2023f: 68, 75 and 73). In relation to technology transfer and development, equity may be implicit by reference to meeting local needs, ensuring effectiveness (ownership, access and impact), reducing cost of capital and of debt servicing (UNFCCC, 2023j: 50, 51, 180, 190 and 191).

## **Connection 12. The GST decision conveys that the pursuit of Article 2.1c is complementary to and not a substitute for Article 9 of the Paris Agreement, and integrated approaches can be continued in ongoing dialogues on Article 2.1c**

The GST decision recognises ‘the importance of making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development for the achievement of Article 2 of the Paris Agreement and that this goal is complementary to, and no substitute for, Article 9 of the Paris Agreement, which remains essential for achieving mitigation and adaptation goals in developing countries’ (UNFCCC, 2023f: 90). Such an understanding seeks to allay concerns that the pursuit of Article 2.1(c) would detract from the obligations of developed countries for the provision of climate finance, or might set undue domestic conditionalities in developing countries for the receipt of climate finance (Watson, 2022).

As articulated in recent reports of the SCF and the Sharm el-Sheikh dialogues on the scope of Article 2, paragraph 1(c), and its complementarity with Article 9, understandings of the scope of Article 2.1c remain highly divergent (SCF, 2023). Most Parties and stakeholders, however, appreciate the breadth of sources and channels of finance and the guiding role of government, as well as the centrality of equity in the pursuit of Article 2.1c (Robertson et al., 2023). Since there is no agreement on the scope of Article 2.1(c), this hinders the implementation of actions that may underpin such a shift in finance flows, including in the context of the GST. Thus, COP28 decided to continue the Sharm el-Sheikh dialogue and develop further understanding of Article 2.1c and its complementarity with Article 9 into 2024 and 2025 (UNFCCC, 2023f: 91-94), to which we return in Section 3. An integrated approach discussing both Article 2.1c and post-2025 climate finance can continue under future dialogues in the climate regime. For example, work has been mandated on assessing the progress developed countries have made towards the goal of mobilising jointly \$100 billion a year for developing countries.

### **Technology and capacity-building**

It is worth highlighting that the GST decision does not include much detail on technology or capacity-building, even though these dimensions of support have been discussed during the GST technical dialogue and reflected in the GST technical synthesis report, as they are deemed essential for implementation by developing countries.

The GST decision underlines the fundamental role of capacity-building in climate action. It establishes a technology implementation programme, supported by the operating entities of the Financial Mechanism of the Convention and Paris Agreement, to strengthen support for technology priorities of developing countries and address challenges (UNFCCC, 2023f: 110).



The technical dialogue of the GST had found capacity-building ‘requires effective country-led and needs-based cooperation to ensure capacities are enhanced and retained over time at all levels’ (UNFCCC, 2023j). As such, the GST decision encourages developing countries to identify their capacity-building support needs and report them in the Biennial Transparency Reports, to be supported by the Paris Committee on Capacity Building (established in 2015 to address current and emerging gaps and needs in implementing and enhancing capacity-building efforts in developing countries) and by the operating entities of the Financial Mechanism<sup>14</sup> (UNFCCC, 2023f: 118–120). These GST components emphasise how a needs-based and -driven approach to climate action relates to funding for all areas of climate action, including technology transfer and capacity-building, which in turn are foundational to implementing mitigation, act on adaptation and minimise, avert and address L&D.

### **Connection 13. Work by the Transitional Committee delivered the COP28 decision on a loss and damage fund, that the GST decision cross-referenced**

A major decision of COP28 was the establishment of a loss and damage fund. Through the fund, vulnerable developing countries will be provided with financial assistance to deal with economic and non-economic loss and damage stemming from the adverse impacts of climate change.

At COP26, it was agreed that funding arrangements for loss and damage would be discussed under the Glasgow Dialogue (UNFCCC, 2021). COP27 at Sharm el-Sheikh determined that a fund would be established as part of these new funding arrangements, and a Transitional Committee (TC) was tasked with operationalising the fund and funding arrangements in 2023. The TC met five times (once more than planned) prior to COP28 in Dubai and delivered an outcome which enabled the adoption of a decision on the first day under both the COP and CMA (UNFCCC, 2023e). Such early adoption of a decision is very unusual at COPs, especially for decisions of high political importance.<sup>15</sup>

The COP28 decision on the fund largely dealt with institutional matters: supervision by a Board with balanced geographical representation (paras 8–9, Annex – governing instrument), supported by a ‘new, dedicated and independent secretariat’ (UNFCCC, 2023e). The World Bank will host the Fund for the first four years (paras 17–19), though this selection is to be confirmed at COP29. The Fund is accountable to the CMA and COP (para 6), in ways to be worked out by the SCF (paragraph 7). Paragraphs 20–24 of the decision set out the manner in which the World Bank is to arrange the Fund (UNFCCC, 2023e). Agreement was also reached on processes to operationalise wider funding

---

<sup>14</sup> Where the Financial Mechanism refers to funds and financial entities established under the Convention, that also serve the Kyoto Protocol and Paris Agreement, it includes the Global Environment Facility, Green Climate Fund, Fund for responding to loss and damage, Special Climate Change Fund, Least Developed Countries Fund and the Adaptation Fund.

<sup>15</sup> There were 12 decisions adopted on the first day of COP3 in Kyoto in 1997, which had already been approved at the SBs and allowed a focus on the final negotiations of the Protocol. The following two years, more procedural decisions were also taken on the first day, at COP 4 in 1998 (on observer attendance in contact groups) and COP5 in 1999 (on institutional relationship between the UNFCCC Secretariat and the broader United Nations). Thanks to Joanna Depledge for checking history.

arrangements inside and outside the UNFCCC under the guidance of UNSG and the UNFCCC Secretariat.

The early adoption of the COP28 decision on the loss and damage fund also meant that the political negotiation on the GST decision did not address the funding of loss and damage in detail, beyond welcoming the decision and urging developed countries and encouraging others to contribute to the fund (UNFCCC, 2023f: 87–89). The GST technical synthesis report included a key finding that ‘support for adaptation and funding arrangements for averting, minimizing and addressing loss and damage need to be rapidly scaled up from expanded and innovative sources, and financial flows need to be made consistent with climate-resilient development to meet urgent and increasing needs’ (UNFCCC, 2023j: 167), though the detailed summary also pointed to the work of the TC. The GST decision welcomes the financial offers made to the loss and damage fund, with contributions pledged during COP28 totalling \$661 million.<sup>16</sup> The challenge is now to convert these pledges into commitments and to sustainably capitalise the fund – from hundreds of millions pledged to hundreds of billions committed.

More broadly, the GST decision on L&D highlighted mostly work of existing bodies, and operationalisation of the Santiago Network on L&D (for technical assistance). The connections between loss and damage and finance in the GST decision are not strong, though it mentions significant gaps, including finance, that remain in responding to the increased scale and frequency of loss and damage, and the associated economic and non-economic losses (UNFCCC, 2023f: 128).

As on other topics, the GST decision refers to transparency, and initiated work on guidelines to assist countries to include information on loss and damage in their biennial transparency reports; this will provide a stronger information base, including through regular synthesis reports to the WIM Executive Committee.

---

<sup>16</sup> See ‘Pledges to the Loss and Damage Fund’, as communicated by the COP28 Presidency to UNFCCC, <https://unfccc.int/process-and-meetings/bodies/funds-and-financial-entities/loss-and-damage-fund-joint-interim-secretariat/pledges-to-the-loss-and-damage-fund>.



## + 4. Action on decisions: implementation of the GST decision nationally and internationally



Two processes each with five-year cycles are at the heart of the Paris Agreement. The first is the GST cycle, which takes stock of progress collectively, and secondly the NDC cycle in which each individual country domestically enhances its action and support. The two cycles are connected, as the outcomes of the GST are to inform countries as they prepare their second NDCs, and to spur further international cooperation for climate action (UNFCCC, 2015: Article 14.3).

This connection happens for the first time following the decision on the first GST. The assessment was clear that that sum of existing NDC, i.e. those updated in 2020/21 outlining climate action for 2025–2030, showed significant progress, but much more is needed (UNFCCC, 2023j: key finding 1). The GST1 decision now informs countries, as they prepare to communicate second NDCs due in early 2025 covering climate action and support to be implemented in 2031–2035.

We explore this two-way interconnection in turn in this section, outlining guiding connections for countries, and for international cooperation within and beyond the UN climate regime.

### 4.1. Implementation in the UN climate regime

**Connection 14. Key next steps after the first GST include increased finance for mitigation, including transitions away from fossil fuels and other measures, based on equity and science; support for implementation of NDCs and NAPs; and progress on capitalising the loss and damage fund**

With respect to the implementation of the GST decision, there are several next steps within the UN climate regime. Given the substantive connections, implementing the first GST decision and the decisions on other COP28 workstreams should, we argue, be approached in an integrated manner.

In the first GST, the assessment was that mitigation ambition was limited by weak finance and because equity was only partially addressed. Once the quantum and other aspects of the NCQG are set at the end of 2024, it could be anticipated that more international public finance shall be provided to and mobilised for developing countries, by developed countries, including for mitigation. With the MWP continuing up to 2026, and finance for

mitigation being addressed in its investment dialogues, more mitigation ambition can be enabled in the second GST, ending in 2028.

Equity in mitigation will need to be progressed concurrently, and the JTWP should take discussion further and connect to the MWP. As equity is a sensitive topic, informal conversations are particularly important to develop a broader (including equity in adaptation) and more shared understanding, noting that work under the IIRM Forum will likely continue to focus on just transitions for the workforce. Transitions away from fossil fuels, in particular, will need focused discussion, building on the useful framing from Dubai that links transitions away from coal, oil and gas to equity, science and net zero emissions in the long term. By the time the second GST ends in 2028, there will only be two years left in this critical decade so this discussion needs to continue, together with the many other policies, actions and measures (PAMs) available to countries.

On adaptation, while the first GST decision mirrored the GGA decision, how these are included by countries in their second NDCs remains to be seen. Countries are also expected to submit and implement NAPs by 2030 under the FGCR.<sup>17</sup> As at November 2023 only 51 countries had submitted NAPs, although 129 out of 154 countries had NAP processes under way (UNFCCC, 2022b: 138), while the GST technical assessment made clear that far more adaptation planning is happening at national level than is formally communicated (UNFCCC, 2023j: 33).

For loss and damage, there is work under way on the new fund decided at COP28. In order to see progress by the second GST in 2028, it will be important that the Board of the Fund gets to work to establish the operational framework of the fund including policies and programmes, eligibility criteria, access modalities, and funding instruments, as well as ensuring the initial resource mobilisation is robust and builds significantly beyond the \$661 million pledged at COP28 (Schalatek and Richards, 2024). Further, the formalisation of the SNLD, including its advisory body and host institution, has the potential to kickstart much-needed technical assistance to support the implementation of approaches to avert, minimise and address loss and damage in developing countries, along with other funding arrangements for loss and damage.

**Connection 15. An integrated approach to climate finance obligations and broader finance flows for climate action assessed in the first GST can continue across work on the NCQG and Article 2.1(c), and increases in both can increase ambition in GST2**

Regarding means of implementation and support, the first GST enabled a more connected approach to developed countries' climate finance obligations and to broader finance flows, as elaborated in the previous section.

---

<sup>17</sup> Note: The GST decision urges countries that have not submitted their NAPs until now to submit by 2025 and implement them by 2030. However, the decision on GGA at COP 28 seems to provide some latitude by requesting countries to have a plan in place by 2030 as part of the targets under the iterative adaptation cycle, with a view to implementation also by 2030.



As the NCQG quantum will be set prior to the second GST, greater increases in national ambition in mitigation and adaptation, including through countries' NDCs and NAPs, should be possible. In 2024, the process for determining the NCQG is changing gear from a technical interface to a process where the three technical dialogues will be accompanied by meetings to identify the substantive elements of a decision text. While the NCQG decision at COP28 was procedural, the Co-Chairs' summary articulated the options for key elements of the goals and parameters for decision-making in 2024. These include 22 elements for political guidance.<sup>18</sup> Both the first GST and NCQG decisions clearly state that deliberations on the scale and elements of the NCQG will be in the context of supporting implementation of NDCs, NAPs and adaptation communications. That means that the NCQG will need to consider evolving needs of developing countries, to implement NDCs and NAPs and adaptation communications, and therefore the need for enhanced provision and mobilisation of climate finance from a variety of sources, based on almost identical language in the GST decision and NCQG decision (UNFCCC, 2023f: 94; UNFCCC, 2023d: 26).

In addition to the deliberations on the NCQG, the extended Sharm el-Sheikh dialogue on Article 2.1c and its complementarity with Article 9 in 2024–2025 will provide more direction for the leveraging of resources by international financial institutions, domestic resource mobilisation and mobilisation by private sector actors, including institutional investors, for climate action globally. Leveraging is poorly defined, and, as not attributed to a single government, rigorous accounting and accountability are very difficult. While there was limited progress in Dubai on how to make finance flows consistent with pathways towards climate-resilient and low-emission development, the COP28 decision to continue this dialogue remains salient. The COP28 outcome on the Sharm el-Sheikh dialogue is contained within the SCF decision (UNFCCC, 2023c: 7–14), and focuses on the process aspects of these dialogues, building on a secretariat report on the two dialogues held in 2023 (UNFCCC, 2023h).

The continued Sharm el-Sheikh dialogue is complemented by a dialogue on implementing the GST decision in relation to finance, with modalities to be developed at SB-60 (June 2024) and considered by CMA6 (November 2024) (UNFCCC, 2023f: 97–98). If well-coordinated, these dialogues provide an opportunity to improve the connection between finance obligations and climate development-consistent finance flows.

**Connection 16. A clear modality for better sequencing and coordination can increase ambition in GST2 further, learning from cases in GST1 where sequencing limited ambition of outcome**

The first GST made some innovations in the UNFCCC process. It was a Party-driven process, with significantly more participation by non-Party stakeholders (NPS) and interactive exchanges among Parties and NPS than is usual in plenaries and contact groups. The negotiations relating to the GST follow-up will consider refinements to

---

<sup>18</sup> Ad hoc work programme on the new collective quantified goal on climate finance: Report by the co-chair, see [https://unfccc.int/sites/default/files/resource/cma2023\\_11.pdf](https://unfccc.int/sites/default/files/resource/cma2023_11.pdf).

logistical and procedural elements of the GST, based on Party submissions, and information synthesised by the secretariat (UNFCCC, 2023f: 193). Independent researchers have also offered reflections on process in GST1 (Peringer and Rietig, 2024).

The first GST provided a wealth of technical information that can be used by countries as they look to enhance their second NDCs. The GST technical dialogue synthesised extensive inputs by Parties and non-Party stakeholders, and developed ways to make these inputs useful. Some NPS in the technical dialogue provided summaries, including a compendium of illustrative adaptation actions and an example of a technical annex on mitigation.<sup>19</sup> A searchable interface of submissions to the GST process was developed by an independent organisation and shared with participants.<sup>20</sup> Countries can draw on rich information in what is effectively a database on good practices shared during the first GST.

No mechanism to coordinate and sequence work was in place during the first GST and this could be improved for GST2. Given substantive overlaps between the GST and other workstreams as outlined in section 2 (refer also to Figure 2), coordination and sequencing can be improved in the process leading up to and during GST2. Going forward, in some cases, the situation will change and some issues with sequencing will disappear: the NCQG quantum will be known, the goal of a doubling of adaptation finance by 2025 will hopefully have been met with lessons learnt, and the two-year UAE–Belém work programme on the development of indicators for measuring progress in achieving the GGA targets outlined in the FGCR will be completed.

An overview of the workstreams launched in Dubai would be useful to address future overlaps that might influence GST2, however, and could be provided by the secretariat. Furthermore, the GST2 would be aided by clearer agreement on a division of labour; that one group addresses an issue, and another takes up the result. This too requires attention to sequencing. The SB Chairs, for example, could convene the various co-chairs and co-facilitators, develop proposals and discuss these with heads of delegation as the GST2 process is refined.

## 4.2. Next steps for countries: NDCs and BTRs

### **Connection 17. The first GST decision should inform what countries do next, in communicating their second NDCs and submitting their first biennial transparency reports**

Addressing For countries, a key and agreed next step is to prepare the next NDC. Under the Paris Agreement, each country is required to submit their second NDCs by February 2025 (UNFCCC, 2015a: 25), with an implementation timeframe from 2031 to 2035. NDCs

---

<sup>19</sup>See <https://unfccc.int/topics/global-stocktake/information-portal>.

<sup>20</sup><https://gst1.org/>.



have to show progression, meaning they need to increase ambition compared to a country's previous NDC. Progression in NDCs applies to a wide range of aspects, including adaptation, support, mitigation and transparency (UNFCCC, 2015b: Article 3).

Progression in mitigation relates to more ambition in targets and domestic mitigation measures to achieve them. Countries can take a long-term perspective on near-term targets and measures that are included in their NDCs. Concretely, countries might consider the many good practices in mitigation action shared during the technical assessment, to increase ambition in implementing domestic mitigation measures and setting targets in new NDCs that contribute to global efforts. Beyond 2031–2035, countries consider whether mitigation targets in their NDCs put the country on track to net zero emissions – which globally we need to reach by 2050. The GST decision also urged countries to communicate LT-LEDS, and include just transitions to net zero emissions, repeating language from prior COPs in Glasgow and Sharm el-Sheikh. More adequate means of implementation for mitigation in developing countries will be important to achieve higher ambition in mitigation.

Countries may choose to include goals for adaptation in their NDCs, inspired by targets in the GGA framework and reinforced in the first GST decision, and drawing on work being done under the subsidiary bodies on elaborating the indicators to track progress against targets in the FGCR. In describing institutional arrangements for adaptation action, the first GST decision allows countries to consider setting up inventories of impacts, and to complement or establish early warning systems, for example.

NDCs should also show progression on finance, which is critical for ambition in climate action and its implementation. Developed countries have generally included little or no information on finance provided and mobilised in their NDCs, whereas most developing countries include finance needed, in some cases linking this to increased ambition in mitigation and also indicating finance needed for adaptation. The first GST decision, although not addressing the quantum of climate finance obligations, contains rich information on an integrated approach to finance for climate actions that countries could draw on in their NDCs.

Reporting on finance provided by developed countries to developing countries is required in the biennial transparency reports (BTRs), under the Enhanced Transparency Framework of Article 13 of the Paris Agreement. Yet information provided is limited by what developed countries choose to include, and BTRs offer only information on past contributions. Projections of finance are reported separately, and even less completely and transparently, in biennial communications under Article 9.5 of the Paris Agreement by developed countries. Where developing countries can improve information on finance needed in their NDCs, and also their NAPs, consistent with the GST decision, they might also report more fully on finance received in their BTRs. As the GST decision emphasised the importance of a needs-based approach, a stronger information base in reporting by all countries will be essential to understand clearly whether levels of finance and investment are commensurate with 1.5°C and if flows are on track to meet such needs.

**Connection 18. Transparency supports the GST, and the first GST decision has implications for transparency, which can help countries include loss and damage, improve on adaptation, and track progress in mitigation. Developing countries will need support for capacity to report, including in their BTRs**

Transparency is a topic that is distinct from, but related to, the GST. Formally, the enhanced transparency framework (ETF) under Article 13 focuses on reports by individual countries, while the GST focuses on collective progress by all, and is under Article 14 of the Paris Agreement. Yet transparency reports are a critical input to the GST, and the GST informs NDCs on which countries report in BTRs. To illustrate this connection, we included transparency in Figure 2, showing it as being of a slightly different kind.

The first GST decision made several connections to transparency in general, and to BTRs specifically. Transparency reports are due in the form of BTRs for the first time by the end of 2024. The BTRs have been negotiated as single format for all countries, with flexibility for developing countries that need it. The second GST will have a more consolidated information base in BTRs, whereas the first GST drew on biennial reports for developed countries and biennial update reports for developing countries. Key elements of BTRs, mitigation and finance provided and mobilised, undergo technical expert review. The secretariat will produce annual reports on technical expert review, and this information will be available before GST2.

On mitigation, at a national level, BTRs and NDCs should go together in a sequence of: target setting every five years in NDCs and reporting progress every two years in BTRs, each time setting more ambitious targets and measures to achieve these targets. The last step is to be informed by the outcome of the GST. As such, the NDCs are to include progression in targets and domestic mitigation measures to achieve them, while BTRs assist in tracking progress in implementing and achieving existing targets.

On adaptation, while reporting is voluntary under Article 13, progress can be made on improving information, for example by including adaptation experts on technical expert review teams. The GST decision requested the Secretariat to prepare a new and regular synthesis report to summarise information on adaptation information that countries provide in their BTRs, adaptation communications and NDCs (UNFCCC, 2023f: 60). A review of guidelines on adaptation communications will take place in 2025 (UNFCCC, 2018b: 16), which can also consolidate work on adaptation and transparency.

The GST decision enhances transparency on information related to enhancing understanding, action and support to avert, minimise and address loss and damage associated with climate impacts (UNFCCC, 2023f: 132). Building on the existing modalities, procedures and guidelines of the ETF, which include a short section on information related to L&D (UNFCCC, 2018d: section IV.G), the GST decision mandated work on voluntary guidelines that will assist those countries that choose to include data and information on L&D in their BTRs. This mandate was given to the Executive Committee of the Warsaw International Mechanism on Loss and Damage (WIM ExCom),



and the secretariat is also mandated to bring together information on L&D in regular synthesis reports (UNFCCC, 2023f: 133–134).

Information on climate finance provided and mobilised from developed to developing countries is to be included in BTRs, which could for the first and second BTR cycles assess information for 2021/22 and 2023/2024 respectively, against the existing climate finance mobilisation goal of \$100 billion a year. It will only be the third BTRs, due in 2028, that will assess 2025/26 information on finance provided and mobilised, and so against the quantum of the NCQG.

For developing countries, the demands of reporting under the multilateral climate regime have increased rapidly, both in terms of information required and frequency of reporting (Letete, 2022). Transparency may be thought of as a necessary, but arguably not sufficient, condition to increase ambition (Weikmans, Asselt and Roberts, 2020). Be that as it may, developing countries will need greater capacity for reporting, and the GST decision encourages them to identify their needs for reporting and transparency in response to increasing demands.

### 4.3. The broader landscape of climate responses and finance

**Connection 19. International initiatives can enhance climate action, initiatives to finance climate action can lead to greater flows that complement the provision of international public climate finance, and reform of the international financial architecture needs to be implemented**

#### International cooperative initiatives (ICIs): emergence, potential and accountability

A large number of ICIs relevant for climate action globally have emerged in recent years. Some were initiated by non-state actors, others involve governments, and yet others both. During the GST technical dialogue, discussions drew on the IPCC assessment that some estimates suggest that non-Party stakeholders could reduce emissions by ‘up to 20 Gt CO<sub>2</sub> eq in 2030 {limited evidence, medium agreement}’, while indicate low confidence (Lecocq et al., 2022: 429). The technical assessment of the GST similarly found that NPS contributions can strengthen mitigation efforts by Parties, while also indicating that ‘rigorous accounting and accountability are needed to lend credence to non-Party stakeholders’ contributions’ (UNFCCC, 2023j: 85). Although the assessment in the GST decision relates to mitigation, there are ICIs that have a focus on adaptation, such as the Race to Resilience, and more ICIs relating to aspects of finance for climate action (explored below).

Accountability, transparency and accounting with rigour are as important for non-state actors as the enhanced transparency framework of Article 13 of the Paris Agreement is for Parties. The third meeting of the GST technical dialogue asked 'How can we better understand how much NPS and international cooperative initiatives have contributed to collective progress on Paris Agreement goals and how can the accountability of pledges be promoted, and rigorous accounting be ensured?'. Participants pointed to: existing tools, standards and frameworks; building on them including through independent validation; collaborative data collection; and tailoring approaches to diverse NPS.

The proliferation of ICIs has led to fatigue among some governments about joining yet another new initiative. Not even well-resourced developed countries can participate in every initiative. For developing countries, the question of who finances international cooperation is important, and whether support for participation is available may determine whether they participate. Prioritising initiatives that hold themselves accountable, are rigorous and transparent in accounting, and supportive of developing countries, is more likely to be effective. Such an approach can drive more ambitious climate action in mitigation, adaptation and finance, compared to simply increasing the number of initiatives.

### ICIs for scaling up finance for climate action

When it comes to financing climate action, many actors including national governments, corporates and financial institutions have initiated work on aligning their activities to support the goals of the Paris Agreement. The multiplicity of initiatives, such as the Coalition of Finance Ministers for Climate Action, the Global Financing Alliance for Net Zero, the Network for Greening the Financial System, the Net Zero Asset Owners Alliance, Net Zero Business Alliance, the Net Zero Insurance Alliance and the Task Force on Climate-Related Finance Disclosures are some examples of action by different actors in their specific domains. How far these initiatives are leading to additional finance for climate action in developing countries is yet to be assessed in a cumulative, comprehensive manner. In 2022, the UNSG asked a high-level panel to examine the accountability and credibility of claims for net zero emissions, to avoid unsubstantiated claims or greenwashing. The panel's recommendations on greater transparency, accountability and accounting of these ICIs should be implemented (UN High Level Expert Group, 2022).

The year 2023 in which the first GST concluded was not short of new ICIs around financing climate action, or picking up topics relevant to it. In June 2023, the Summit for a New Global Financing Pact held by France launched a roadmap including a common framework for debt treatment, the channelling of SDRs<sup>21</sup> to vulnerable countries, the creation of a net zero data public utility and much more. Specifically at COP28:

---

<sup>21</sup> SDRs are special drawing rights. SDRs are international reserve assets, created by the IMF, not a currency, and may be exchanged for currency. Some have suggested using SDRs for climate finance, though it is not without challenges (Plant, 2022).



- UAE championed a Leaders declaration on a climate finance framework. The declaration has an agenda aimed at making finance available, accessible and affordable for climate action, including via: delivering climate finance commitments; freeing up fiscal space for climate action; widening sources of concessional finance; delivering just, country-owned transitions; doubling down on country platforms; building bigger, better and more effective MDBs; enhancing domestic resource mobilisation; unlocking private finance; and delivering high-integrity carbon markets.<sup>22</sup>
- Antigua and Barbuda, Barbados, France, Kenya and Spain jointly launched a new taskforce on international taxation to mobilise new, additional, predictable and adequate financial support to enable developing and vulnerable countries' transition to low-carbon, climate-resilient and nature-positive economies, including addressing loss and damage due to climate impacts.
- MDBs reaffirmed their commitment to inclusive, nature-positive, climate-resilient development through a joined-up approach to climate and development. This builds on the ambitious vision for reform of the MDBs as laid out by the Independent Expert Group on Strengthening MDBs, commissioned by the Indian Presidency of the G20, addressing vision, operational model and scale and form of finance, much of which could unlock additional lending room in MDBs that could be directed to climate (IDB, 2023; Lee et al., 2023).

Such ICIs on finance for climate action should be understood in the context of an integrated approach that combines the provision and mobilisation of finance from developed countries to developing countries for climate action and a broader global leveraging of finance. The engagement of a wide range of actors in the finance ecosystem is also important in implementing reform of the international financial architecture.

### Implementing reform of international financial architecture

The GST decision underscored the importance of reforming the multilateral financial architecture (UNFCCC, 2023f: 95). As described in Section 2, many actors are encouraged in the GST decision in order to turn vision into practice and in order to implement a fundamental reform of the international financial architecture. Such calls for reform are echoing in the G20. While these reforms centralise or take on board other development agendas, across the various initiatives, climate action in developing countries is firmly integrated. Thus international financial architecture reform includes the long-called-for reforms of MDBs, including capital management reform (IDB, 2023; Lee et al., 2023).

A key opportunity to consolidate and lead on implementation of the finance agenda and international finance architecture reform can be via Brazil's presidency of the G20 in 2024, the 'finance COP' in Baku at the end of 2024, followed by Brazil's hosting of COP30 in

---

<sup>22</sup> [https://www.cop28.com/en/climate\\_finance\\_framework](https://www.cop28.com/en/climate_finance_framework).

2025. The Brazilian connection to financing global climate action from this year's G20 presidency, through to Brazil taking on the COP30 presidency, provides a three-year-long opportunity for a single country to further emphasise integrated approaches to finance and climate. Emerging G20 priorities include social inclusion, inequality, hunger and poverty; promoting sustainable development in its economic, social and environmental dimensions; and the reform of global governance institutions.

In parallel, there will be work from Dubai via Baku (COP29) and Belém (COP30) on a 'Roadmap to Mission 1.5', referring to the global temperature goal. The GST decision only provides a sketch of that roadmap. An initial outline of activities of this roadmap indicated that it aims 'to significantly enhance international cooperation and the international enabling environment to stimulate ambition in the next round of nationally determined contributions, with a view to enhancing action and implementation over this critical decade and keeping 1.5°C within reach' (UNFCCC, 2023f: 191). The troika of COP Presidencies - UAE, Azerbaijan and Brazil - are holding events during 2024 to elaborate further details of mission 1.5. Such events include briefings in the margins of UNFCCC subsidiary bodies in June and the UN General Assembly in September 2024. Researchers are also providing policy briefs that explore possible ways in which mission 1.5 might provide a more effective framework for international cooperation (Ngwadla, Torres-Gunfaus and Deprez, 2024).

With India having led the G20 in 2023, and South Africa taking up its presidency in 2025, the BASIC countries have a significant opportunity to increase finance for an ambitious and equitable climate response. The 2024 Presidency of G20, Brazil, is also keen to forge a recommendation on optimising the operations of international environmental and climate funds in delivering sustainable finance and advancing credible and robust just transition plans.<sup>23</sup>

---

<sup>23</sup> <https://g20sfwg.org/wp-content/uploads/2024/02/2024-G20-SFWG-NAP.pdf>.



## + 5. Conclusion



The true test of the landmark UAE Consensus will lie in the implementation of its decisions, not just ambitious language. In this paper, we have analysed connections within the GST, and between the GST decision and other workstreams at COP28, as a critical basis for understanding next steps. Three kinds of connections emerge from our analysis: connections that are *inherent* to all climate action, those that help *understand* the decisions made and those that guide *implementation* of more ambitious and equitable climate action. In light of these connections, we argue for an integrated approach to turning outcomes into actions.

We found inherent connections within the GST topics, the first being that equity and science are foundational to ambition, across the board. Ambition, based on equity and science, is therefore an inter-connected triad that must guide implementation of climate action across the full scope of topics the GST and in other COP28 decisions. Furthermore, some topics are inherently connected – notably that less mitigation means more need for adaptation and action on loss and damage, and this entails higher costs.

Central to this paper is analysis of several connections that aid in understanding the complex set of decisions in the UAE Consensus, which we addressed by topic.

Mitigation ambition will increase when implementing the GST decision, but such increase could have been greater. While there is a clear list of mitigation efforts that countries can choose from in the GST decision, ambition in implementing domestic mitigation measures, in turn limited by weak outcomes on finance and partial treatment of equity. Equity in mitigation focused mainly on promoting just transitions, though the finance for just transitions is not taken further in the process. By considering more integrated ways to strengthen finance and to continue exploring equity, we argue, can enable greater mitigation ambition.

The GST decision on adaptation was strengthened by the decision on the GGA, which agreed 11 global targets and established a global climate resilience framework. Indicators to track progress towards these targets will be developed in the next two years that will improve the information base for adaptation action. The UAE Consensus did little to fill the critical gap in adaptation finance, a gap that needs to be bridged but was only recognised in the GST decision. The GST did, however, send a signal to the NCQG of the importance of international public finance, to implement a better balance of funding for adaptation and mitigation, and to go beyond a doubling of a small amount of adaptation finance. Equity in adaptation is less clearly understood, though we point to the opportunity to develop better understanding of just resilience through the work of the JTWP.

The first GST took an integrated look at finance obligations by developed countries for developing countries and broader flows. Yet our analysis shows that the decisions on finance in the GST and other COP28 workstreams lack teeth. This year will be crucial to

deliver on the provision and mobilisation of finance for mitigation, adaptation and loss and damage, in a balanced manner and at a scale commensurate with keeping 1.5°C in reach. While COP28 delivered a loss and damage fund, based on the work of the Transitional Committee, the fund must deliver hundreds of billions to address the needs of developing countries, and future capitalisation must be explored. Furthermore, we recognise that a needs-based approach, as discussed in the GST, relates to funding all areas of climate action, which includes technology transfer and capacity-building. We argue that both finance obligations and broader financing can be taken forward in agreeing the NCQG at the end of 2024 and via the extension of the Sharm el-Sheikh dialogue on Article 2.1c and its complementarity with Article 9 of the Paris Agreement.

The litmus test of ambition is implementation. We argue that implementation needs to be inter-connected, within the UNFCCC, in actions by countries and in the broader landscape.

Within the UN climate regime, implementation of the UAE Consensus will need to bear in mind the connections outlined in this paper, and how these connections helped or hindered progress. A clear modality for better sequencing and coordination the GST and other workstreams would help guide strategic interventions. For countries, the GST decision must be taken into account, in light of national circumstances, as they prepare their next NDCs and submit first biennial transparency reports. Developing countries will need support for implementation of their climate action. This highlights and underscores the importance of international cooperation to meet the Paris Agreement goals, particularly on finance. While finance obligations remain central, international cooperation on finance for climate action, will be critical, including much-called-for reform of the international financial architecture.

This paper has unpacked a number of complex connections that make up the UAE Consensus, seeking to provide a more nuanced understanding of how a wide range of actors can engage with its outcomes. Urgent action and support are required for countries, individually and collectively, to achieve the goals of the Paris Agreement and effectively respond to the climate crisis.



## + References



- Baumert, K. A. and Goldberg, D. M. (2006) 'Action targets: a new approach to international greenhouse gas controls', *Climate Policy*, 5(6), pp. 567–581. doi: 10.1080/14693062.2006.9685579.
- Boulle, M. (2023) *The role of the Just Energy Transition Partnership in contributing to the implementation of South Africa's NDC: A new form of climate finance and international cooperation? Report for SNAPFI*. Cape Town. Available at: [https://www.diw.de/documents/dokumentenarchiv/17/diw\\_01.c.881551.de/snapfi\\_report\\_south\\_africa\\_2023.pdf](https://www.diw.de/documents/dokumentenarchiv/17/diw_01.c.881551.de/snapfi_report_south_africa_2023.pdf).
- Calvin, K. et al. (2023) *IPCC, 2023: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]*. IPCC, Geneva, Switzerland. Edited by P. Arias et al. doi: 10.59327/IPCC/AR6-9789291691647.
- Fakir, S. (2023) 'Just Transition Energy Partnership in South Africa: Vehicle for Reform and Economic Transformation?', *The Fletcher Forum of World Affairs*, 47(Winter), pp. 41–49. Available at: <http://www.fletcherforum.org/archives/2022/2/18/461-winter-2022-8l5gn-6geff>.
- Fine, B. and Rustomjee, Z. C. N.-330. 96. F. (1996) *The political economy of South Africa : from minerals-energy complex to industrialization*. London: C. Hurst.
- Ha-Duong, M. (2023) *Implementing a Just Energy Transition: A background report.. CIRED Working Paper 2023-90*. Paris: CIRED.
- IDB (2023) *Statement of the Heads of Multilateral Development Banks Group: Strengthening Our Collaboration for Greater Impact*. Inter-American Development Bank.
- iGST Equity Working Group (2022) *Negotiator Briefing: A Needs-based Approach to Assessment and Stocktaking*. Equity Working Group of the independent Global Stocktake. Available at: [https://www.climateworks.org/wp-content/uploads/2022/11/iGST-COP27\\_Negotiator-Briefing\\_A-Needs-based-Approach-to-Assessment-and-Stocktaking\\_2022.pdf](https://www.climateworks.org/wp-content/uploads/2022/11/iGST-COP27_Negotiator-Briefing_A-Needs-based-Approach-to-Assessment-and-Stocktaking_2022.pdf).
- IPCC (2022a) *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, .]* Cambridge, UK and New York, NY, USA: Cambridge University Press. doi: 10.1017/9781009157926.
- IPCC (2022b) 'Summary for Policymakers. H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem (eds.) Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Worki'. Cambridge University Press. Available at: [https://report.ipcc.ch/ar6wg2/pdf/IPCC\\_AR6\\_WGII\\_FinalDraft\\_FullReport.pdf](https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_FinalDraft_FullReport.pdf).
- IPCC (2023) *Climate Change 2023: Synthesis Report., Summary for policymakers (SPM). Contribution of Working Groups I, II and III to the Sixth Assessment Report of the*

*Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)].* Geneva: Intergovernmental Panel on Climate Change (IPCC). doi: doi: 10.59327/IPCC/AR6-9789291691647.001.

IRENA (2023) *World energy transitions outlook 2023: 1.5°C pathway*. Abu Dhabi: International Renewable Energy Agency. Available at: <https://www.irena.org/Publications/2023/Jun/World-Energy-Transitions-Outlook-2023>.

IRENA (2024) *Tracking COP28 outcomes: Tripling renewable power capacity by 2030*. Abu Dhabi: International Renewable Energy Agency. Available at: <https://www.irena.org/Publications/2024/Mar/Tracking-COP28-outcomes-Tripling-renewable-power-capacity-by-2030>.

Lecocq, F. *et al.* (2022) 'Mitigation and development pathways in the near- to mid-term. In IPCC, 2022', in *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, .* Cambridge, UK and New York, NY, USA: Cambridge University Press. doi: [https://report.ipcc.ch/ar6wg3/pdf/IPCC\\_AR6\\_WGIII\\_FinalDraft\\_Chapter04.pdf](https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_Chapter04.pdf).

Lecocq, F. and Winkler, H. (2024) 'Questionable at best: Why links between mitigation by single actors and global temperature goals must be made more robust', *Climate Policy*. doi: <https://doi.org/10.1080/14693062.2024.2362847>.

Lee, N. *et al.* (2023) *Introducing the MDB Reform Tracker MDB REFORM TRACKER* by. Centre for Global Development. Available at: <https://www.cgdev.org/blog/introducing-mdb-reform-tracker>.

Lenferna, A. (2023) 'South Africa's unjust climate reparations: a critique of the Just Energy Transition Partnership', *Review of African Political Economy*, 50(177–178). doi: 10.1080/03056244.2023.2278953.

Letete, T. C. M. (2022) *Establishing relevant and high quality domestic MRV systems to support effective climate action. PhD thesis*. University of Cape Town. Available at: <http://hdl.handle.net/11427/37834>.

Macron, E., Mottley, M. and *et. al.* (2023) 'The Paris Pact for people and the planet', in. Available at: <https://pactedeparis.org/en.php#lepacte>.

Ngwadla, X., Torres-Gunfaus, M. and Deprez, A. (2024) *Mission 1.5: Enhancing international cooperation, enabling meeting the Paris Climate Agreement goals*. Paris: IDDRI (Institut du développement durable et des relations internationales). Available at: <https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue Iddri/Autre Publication/202405-NOTE-Mission 1.5.pdf>.

Peringer, C. and Rietig, K. (2024) *The impact of process innovations in the Technical Dialogue of the first global stocktake*. Better Climate Governance project. Available at: <https://betterclimategovernance.com/wp-content/uploads/2024/02/Report-Technical-Dialogue-Innovations-Feb-14-2024.pdf> (Accessed: 4 March 2024).

Plant, M. (2022) *How We Can Put SDRs to Work in the Fight Against Climate Change—The Multilateral Development Bank Option*. Centre for Global Development. Available at: <https://www.cgdev.org/blog/how-we-can-put-sdrs-work-fight-against-climate-change-multilateral-development-bank-option>.



Robertson, M. *et al.* (2023) *Putting climate resilient development at the heart of equitable implementation of Article 1, paragraph 1(c) of the Paris Agreement: Towards scaled-up adaptation finance*. ODI Paper. London: ODI.

SCF (2021) 'First report on the determination of the needs of developing country Parties related to implementing the Convention and the Paris Agreement. Technical report'. UNFCCC Standing Committee on Finance. Available at: [https://unfccc.int/sites/default/files/resource/54307\\_2 - UNFCCC First NDR technical report - web %28004%29.pdf](https://unfccc.int/sites/default/files/resource/54307_2 - UNFCCC First NDR technical report - web %28004%29.pdf).

SCF (2023) *Synthesis of views on ways to achieve Article 2, paragraph 1(c), of the Paris Agreement, including options for approaches and guidelines for implementation*. Bonn: UNFCCC Standing Committee on Finance. Available at: <https://unfccc.int/documents/632307>.

Schalatek, L. and Richards, J.-A. (2024) *The Loss and Damage Fund Board: Getting It Right from the Start*. Washington D C: Heinrich Böll Foundation. Available at: <https://us.boell.org/en/2024/03/18/loss-and-damage-fund-board-getting-it-right-start>.

UN High Level Expert Group (2022) *Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions*. Washington D C: United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities. Available at: <https://www.un.org/en/climatechange/high-level-expert-group>.

UNFCCC (1992) 'United Nations Framework Convention on Climate Change'. New York: United Nations. Available at: <http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>.

UNFCCC (2009) 'Decision 2/CP.15: Copenhagen Accord. Noted in COP Report, FCCC/CP/2009/11/Add.1'. New York: United Nations. Available at: [http://unfccc.int/documentation/documents/advanced\\_search/items/3594.php?rec=j&prior=600005735#beg](http://unfccc.int/documentation/documents/advanced_search/items/3594.php?rec=j&prior=600005735#beg) accessed 8 October 2011.

UNFCCC (2011) 'Decision 8/ CP.17: Forum and work programme on the impact of the implementation of response measures'. Durban, South Africa: United Nations Framework Convention on Climate Change. Available at: <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf>.

UNFCCC (2015a) 'Decision 1/CP.21, document FCCC/CP/2015/10/Add.1'. Paris, France: United Nations. Available at: <http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>.

UNFCCC (2015b) 'Paris Agreement. Annex to decision 1/CP.21, document FCCC/CP/2015/10/Add.1, 29 January 2016'. Paris, France: United Nations. Available at: <http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf#page=2>.

UNFCCC (2018a) 'Decision 18/CMA.1, with Annex: Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement. Document FCCC/PA/CMA/2018/3/Add.2'. Katowice. Available at: [https://unfccc.int/sites/default/files/resource/cma2018\\_3\\_add2\\_final\\_advance.pdf](https://unfccc.int/sites/default/files/resource/cma2018_3_add2_final_advance.pdf).

UNFCCC (2018b) *Decision 19/CMA.1. Matters relating to Article 14 of the Paris Agreement and paragraphs 99–101 of decision 1/CP.21. Document FCCC/PA/CMA/2018/3/Add.2*. Katowice: United Nations Framework Convention on Climate Change. Available at:

[https://unfccc.int/sites/default/files/resource/cma2018\\_3\\_add2\\_new\\_advance.pdf](https://unfccc.int/sites/default/files/resource/cma2018_3_add2_new_advance.pdf).

UNFCCC (2018c) *Decision 9/CMA.1. Further guidance in relation to the adaptation communication, including, inter alia, as a component of nationally determined contributions, referred to in Article 7, paragraphs 10 and 11, of the Paris Agreement. Document FCCC/PA/CMA/2018*. Katowice: United Nations Framework Convention on Climate Change. Available at:

[https://unfccc.int/sites/default/files/resource/cma2018\\_3\\_add2\\_new\\_advance.pdf](https://unfccc.int/sites/default/files/resource/cma2018_3_add2_new_advance.pdf).

UNFCCC (2018d) 'Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement. Decision 18/CMA.1, advanced unedited version, final will be document FCCC/PA/CMA/2018/XXX/Add.YY'. Katowice. Available at:

[https://unfccc.int/sites/default/files/resource/cp24\\_auv\\_transparency.pdf](https://unfccc.int/sites/default/files/resource/cp24_auv_transparency.pdf).

UNFCCC (2021) 'Glasgow Climate Pact, decision 1/CMA.3'. Glasgow. Available at: [https://unfccc.int/sites/default/files/resource/cma2021\\_10\\_add1\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2021_10_add1_adv.pdf).

UNFCCC (2022a) *Ad hoc work programme on the new collective quantified goal on climate finance. Report by the co-chairs. Document FCCC/PA/CMA/2022/5*.

UNFCCC (2022b) 'Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage. Decision 2/CMA.4'. Sharm el-Sheikh: United Nations Framework Convention on Climate Change. Available at: <https://unfccc.int/documents/626569>.

UNFCCC (2022c) 'Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation referred to in decision 7/CMA.3. Decision 3/CMA.4 Document FCCC/PA/CMA/2022/10/Add.1'. Sharm el-Sheikh: UNFCCC, 2022: Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation referred to in decision 7/CMA.3. Decision 3/CMA.4 Document FCCC/PA/CMA/2022/10/Add.1. Available at: <https://unfccc.int/documents/626569>.

UNFCCC (2022d) 'Sharm el-Sheikh Implementation Plan. Decision 1/CMA.4, document FCCC/PA/CMA/2022/10/Add.1'. Sharm el-Sheikh. Available at: <https://unfccc.int/documents/626569>.

UNFCCC (2022e) *Summary report following the second meeting of the technical dialogue of the first global stocktake under the Paris Agreement. Report by the co-facilitators of the technical dialogue.. 10 October*. Bonn: United Nations Framework Convention on Climate Change. Available at: [https://unfccc.int/sites/default/files/resource/GST.TD\\_.2023.SummaryReport2\\_31March2023.pdf](https://unfccc.int/sites/default/files/resource/GST.TD_.2023.SummaryReport2_31March2023.pdf).

UNFCCC (2022f) *Summary report on the first meeting of the technical dialogue of the first global stocktake under the Paris Agreement. Report by the co-facilitators of the technical dialogue.. 10 October*. Bonn: United Nations Framework Convention on Climate Change. Available at: [https://unfccc.int/sites/default/files/resource/GST.TD1\\_1\\_sreport\\_26\\_09\\_2022\\_Final.pdf](https://unfccc.int/sites/default/files/resource/GST.TD1_1_sreport_26_09_2022_Final.pdf).

UNFCCC (2023a) *Ad hoc work programme on the new collective quantified goal on climate finance. Report by the co-chairs. Document FCCC/PA/CMA/2023/11*.

UNFCCC (2023b) *Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation referred to in decision 7/CMA.3. Decision 2/CMA.5. Document*



*FCCC/PA/CMA/2023/16.Add1*. Dubai: United Nations Framework Convention on Climate Change. Available at:

[https://unfccc.int/sites/default/files/resource/cma2023\\_16a01\\_adv\\_.pdf](https://unfccc.int/sites/default/files/resource/cma2023_16a01_adv_.pdf).

UNFCCC (2023c) *Matters relating to the Standing Committee on Finance. Decision 9/CMA.5. Document FCCC/PA/CMA/2023/16.Add2*. Dubai: United Nations Framework Convention on Climate Change. Available at:

[https://unfccc.int/sites/default/files/resource/cma2023\\_16a02\\_adv\\_0.pdf](https://unfccc.int/sites/default/files/resource/cma2023_16a02_adv_0.pdf).

UNFCCC (2023d) *New collective quantified goal on climate finance. Matters relating to finance. Decision 8/CMA.5. Document FCCC/PA/CMA/2023/16.Add2*. Dubai: United Nations Framework Convention on Climate Change. Available at:

[https://unfccc.int/sites/default/files/resource/cma2023\\_16a02\\_adv\\_0.pdf](https://unfccc.int/sites/default/files/resource/cma2023_16a02_adv_0.pdf).

UNFCCC (2023e) *Operationalization of the new funding arrangements, including a fund, for responding to loss and damage referred to in paragraphs 2–3 of decisions 2/CP.27 and 2/CMA.4. Decision 5/CMA.5. Document FCCC/PA/CMA/2023/16.Add1*. Dubai:

United Nations Framework Convention on Climate Change. Available at:  
[https://unfccc.int/sites/default/files/resource/cma2023\\_16a01\\_adv\\_.pdf](https://unfccc.int/sites/default/files/resource/cma2023_16a01_adv_.pdf).

UNFCCC (2023f) *Outcome of the first global stocktake.. Decision 1/CMA.5. Document FCCC/PA/CMA/2023/16/Add.1*. Dubai: United Nations Framework Convention on Climate Change. Available at:

[https://unfccc.int/sites/default/files/resource/cma2023\\_16a01\\_adv\\_.pdf](https://unfccc.int/sites/default/files/resource/cma2023_16a01_adv_.pdf).

UNFCCC (2023g) *Review of the functions, work programme and modalities of the forum on the impact of the implementation of response measures, midterm review of the workplan and report of the forum. Decision 19/CMA.5 Document*

*FCCC/PA/CMA/2023/16.Add3, also see CP28 and CM*. Dubai. Available at:  
[https://unfccc.int/sites/default/files/resource/cma2023\\_16a03\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2023_16a03_adv.pdf).

UNFCCC (2023h) *Revised report by the secretariat, on Sharm el-Sheikh dialogue on the scope of Article 2, paragraph 1(c), of the Paris Agreement and its complementarity with Article 9 of the Paris Agreement. Document FCCC/PA/CMA/2023/7/Rev.1*. Dubai: United Nations Framework Convention on Climate Change. Available at:

[https://unfccc.int/sites/default/files/resource/cma2023\\_07r01.pdf](https://unfccc.int/sites/default/files/resource/cma2023_07r01.pdf).

UNFCCC (2023i) *Sharm el-Sheikh mitigation ambition and implementation work programme referred to in decision 4/CMA.4. Decision 4/CMA.5. Document*

*FCCC/PA/CMA/2023/16.Add1*. Dubai: United Nations Framework Convention on Climate Change. Available at:  
[https://unfccc.int/sites/default/files/resource/cma2023\\_16a01\\_adv\\_.pdf](https://unfccc.int/sites/default/files/resource/cma2023_16a01_adv_.pdf).

UNFCCC (2023j) *Technical dialogue of the first global stocktake. Synthesis report by the co-facilitators on the technical dialogue. FCCC/SB/2023/9*. Bonn: United Nations Framework Convention on Climate Change. Available at:

<https://unfccc.int/documents/631600>.

UNFCCC (2023k) *United Arab Emirates Just Transition work programme. Decision 3/CMA.5. Document FCCC/PA/CMA/2023/16.Add1*. Dubai: United Nations Framework Convention on Climate Change. Available at:

[https://unfccc.int/sites/default/files/resource/cma2023\\_16a01\\_adv\\_.pdf](https://unfccc.int/sites/default/files/resource/cma2023_16a01_adv_.pdf).

United Nations (2023) *Reforms to the International Financial Architecture. Our Common*

*Agenda Policy Brief 6*. Available at: <https://www.un.org/sites/un2.un.org/files/our-common-agenda-policy-brief-international-finance-architecture-en.pdf>.

Watson, C. (2022) *Options for embedding Article 2.1c in the New Collective Quantified Goal on climate finance. Working paper*. London: Overseas Development Institute.

Weikmans, R., Asselt, H. V and Roberts, J. T. (2020) 'Transparency requirements under the Paris Agreement and their (un)likely impact on strengthening the ambition of nationally determined contributions (NDCs)', *Climate Policy*, 20(4), pp. 511–526. doi: 10.1080/14693062.2019.1695571.

Winkler, H. (2017) 'Mitigation (Article 4)', in Klein, D. et al. (eds) *The Paris Agreement on climate change: Analysis and commentary*. ISBN: 9780198803768. Oxford: Oxford University Press, pp. 135–159.

